



Remedial Investigation/Feasibility Study

Eatonville Landfill

State of Washington Department of Ecology
Facility Site ID No. 85933/Cleanup Site ID No. 15271

January 2025

Prepared for:



Prepared by:



APPENDICES

APPENDIX A

Field Documentation

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

1.



2.



- 1:
Coffee can with bullet holes at top of landfill waste prism
- 2:
Beer can with bullet holes at top of landfill waste prism

Appendix A: Evidence of Shooting in Landfill Area (1)

Photo Log

Remedial Investigation/Feasibility Study
Former Eatonville Landfill
Eatonville, WA



3.



4.



3:
Spent ammunition carriers in landfill area.

4:
Spent ammunition carriers and target in landfill area.

Appendix A: Evidence of Shooting in Landfill Area (2)

Photo Log

Remedial Investigation/Feasibility Study
Former Eatonville Landfill
Eatonville, WA



5.



6.



5:
Several spent ammunition carriers in borrow pit.

6:
Ammunition carrier in borrow pit.

Appendix A. Evidence of Shooting in Borrow Pit (1)

Photo Log

Remedial Investigation/Feasibility Study
Former Eatonville Landfill
Eatonville, WA

7.



8.



7:
Several spent casings in borrow pit.

8:
Ammunition carrier in borrow pit.

Appendix A. Evidence of Shooting in Borrow Pit (2)

Photo Log

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

Eatonville, WA

9.



10.



9:
Dense vegetation and mid-age tree growth in the wetland area.

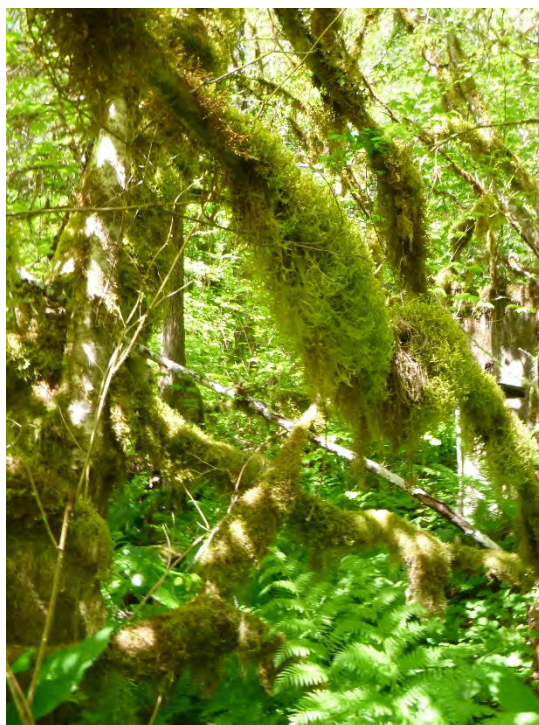
10:
Dense vegetation and mid-age tree growth in the wetland area immediately west of the base of the spring.

Appendix A. Wetland Area Vegetation (1)

Photo Log

Remedial Investigation/Feasibility Study
Former Eatonville Landfill
Eatonville, WA

11.



12.



11:
Dense undergrowth in the wetland area.

12:
View of dense vegetation in wetland area from landfill area.

Appendix A. Wetland Area Vegetation (2)

Photo Log

Remedial Investigation/Feasibility Study
Former Eatonville Landfill
Eatonville, WA

13.



14.



13:
Debris in landfill area when looking up from toe of landfill waste prism.

14:
Debris on east side of toe of landfill waste prism.

Appendix A. Landfill Area Waste (1)

Photo Log

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

Eatonville, WA

15.



16.



15:
Car body visible in landfill waste prism from wetland area.

16:
Appliances and tires visible at west edge of landfill waste prism.

Appendix A. Landfill Area Waste (2)

Photo Log

Remedial Investigation/Feasibility Study
Former Eatonville Landfill
Eatonville, WA

17.



18.



17:
Waste at base of landfill prism in wetland.

18:
Debris at base of slope/edge of landfill waste prism intersecting with wetland.

Appendix A. Wetland Area Waste (1)

Photo Log

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

Eatonville, WA

19.



20.



19:
Tire visible in the wetland area.

20:
Several tires visible in the wetland area.

Appendix A. Wetland Area Waste (2)

Photo Log

Remedial Investigation/Feasibility Study
Former Eatonville Landfill
Eatonville, WA

APPENDIX B

Boring and Piezometer Construction Logs

Remedial Investigation/Feasibility Study

Former Eatonville Landfill



Boring ID HA-01A

Project Number

Sheet, of

SOIL BORING LOG

Project: Eatonville Landfill

Location: west edge of toe between waterfalls

Drilling Contractor:

Drilling Method:

Start Date: 2/3/22

End Date:

Field Personnel:

Sampling Method: hand dug

Water Levels: 1ft

Total Depth: 1.5ft

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.0	0.0-0.5 100%	(GP)	Sandy, rocky, gravels up to 2in wide, subrounded, gray and brown w/ some pink, blue, orange, very wet	Sampled 1025
0.5	0.5-1.0 100%		SAA	Sampled 1025 sampled 1030
1.0	1.0-2.0 50%		SAA, more large rocks, (up to 4in dia.) subrounded and multicolored	Sampled sampled 1035
1.5			unable to dig past rock layer	
2.0			end of hole	



Boring ID HA-01B

Project Number

Sheet of

SOIL BORING LOG

Project: Eatonville Landfill

Location: west central of toe next to PZ-03

Drilling Contractor:

Drilling Method:

Start Date: 2/3/22

End Date:

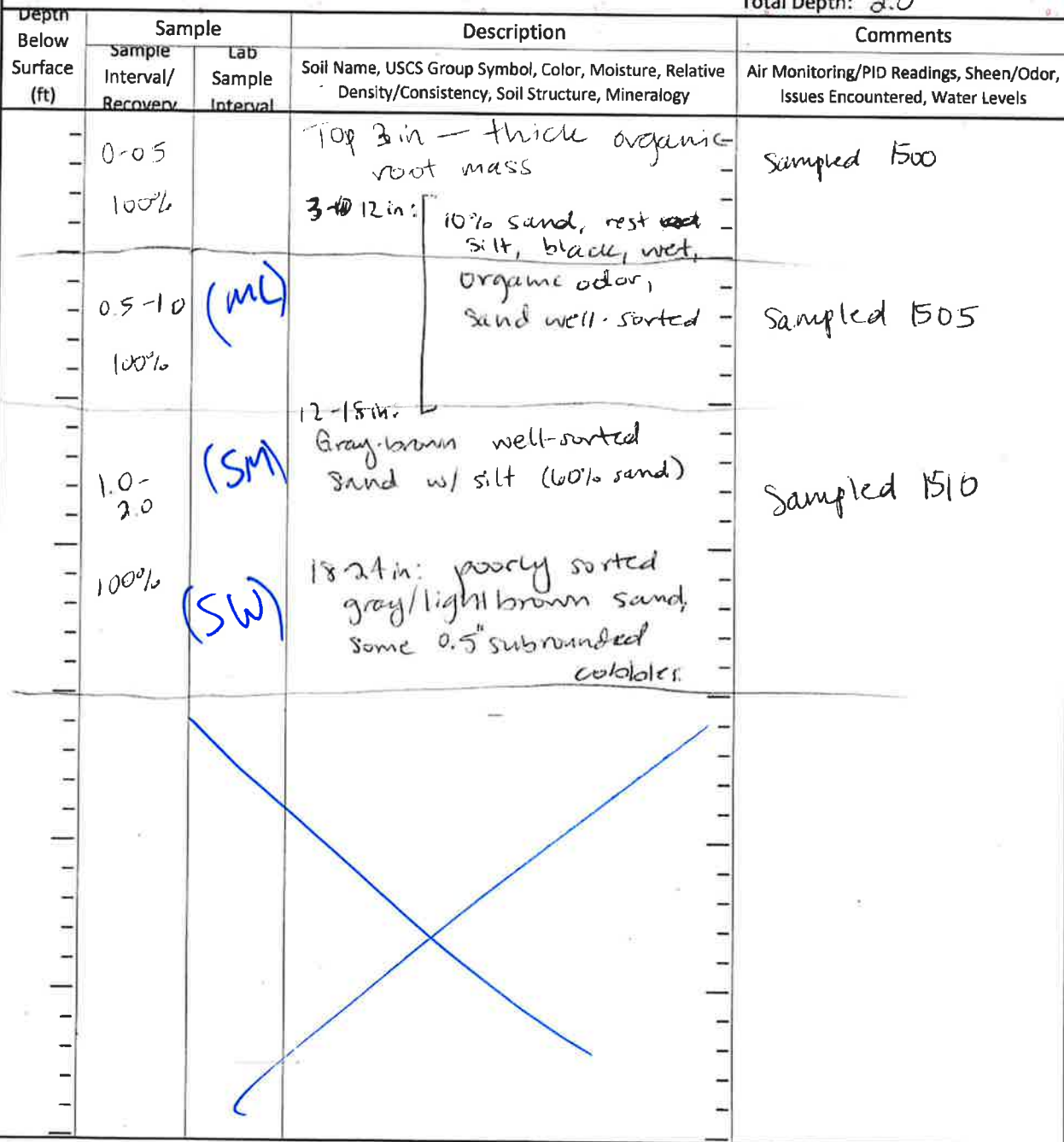
Field Personnel:

Sampling Method: hand dug

Water Levels: N/A

Total Depth: 2.0 ft

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/Recovery	Lab Sample Interval		
0.0	0-0.5	(SP)	Sand + gravels w/ some root mass, black/gray, few subrounded gray rocks (1 in dia)	40% gravel 50% sand → poorly sorted 10% roots Sampled @ 1645
0.5	0.5-1.0	(SP)	sand and gravels, black/gray, some 1 in dia gray rocks, transitions to brown sand at 0.8 ft	50% gravel 50% sand → poorly sorted Sampled at 1650
1.0	1.0-2.0	(SP)	light gray/brown coarse sand w/ gravel, several larger (2 in dia) subrounded rocks	20% rock 30% gravel 50% sand → poorly sorted sampled at 1655
2.0				





Boring ID

HA-01D

Project Number

Sheet of

SOIL BORING LOG

Project: Eatonsville

Location:

Drilling Contractor:

Drilling Method:

Start Date:

2/4/22

End Date:

Field Personnel:

Sampling Method:

Hand dug

Water Levels:

Total Depth: 1.75

Depth Below Surface (ft)	Sample		Description Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Comments Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Levels
	Sample Interval/ Recovery	Lab Sample Interval		
0.0	0-0.5		Top 3in organic, roots	Sampled 1515
0.5	100% (SM)		3-in blade silty poorly sorted sand (60% sand) moist	
	0.5-1	(SP)	<10% organics, moderately sorted sand (90%) gray, brown, moist	Sampled 1520
1.0	100%			
	1-2	1-1.75 (SW)	poorly sorted sand (90%) w/ subrounded nodules (0.5") light gray/tan, moist	Sampled 1525
	75% recovery			
2.0				

Sheet of

SOIL BORING LOG

Project: Eatonville

Location:

Drilling Contractor:

Drilling Method:

Start Date: 24/22

End Date:

Field Personnel:

Sampling Method: hand dug

Water Levels:

Total Depth: 2.0

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/Recovery	Lab Sample Interval		
0-0.5 100%			Top 4-5 in organics, root mass	Dug pit out of slope. sampled 1535
0.5-1 100%	(SM)		Uniform, peddy, poorly sorted gravely sand w/ silt (sand 70%). Some cobbles, rounded, 1-2".	sampled 1540
1-2 100%			SAA	sampled 1545



Boring ID

NA-02A

Project Number

Sheet of

SOIL BORING LOG

Project: *Exxonmobil LP*Location: *basement edge of landfill*

Drilling Contractor:

Drilling Method:

Start Date: *7/3/11*End Date: *7/7/11*Field Personnel: *BO GS*Sampling Method: *hand dug*

Water Levels:

Total Depth:

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		

0.5			Dark brown, rocky, organic material w/ <i>irony wet</i> organic 20% gravel 50% sand 30%	Sampled @ 1600
1.0		(OL)	Dark brown silty organic material with $< 10\%$ 0.5-1.5" cobbles/pebbles and log roots 20% organic 45% sand 30% gravel 5% cobbles	Sampled @ 1605 Sampled comp @ 1606
1.5		(SW)	Dark brown generally sand w/ large 72" roots and 0.5-1" pebbles ($< 10\%$) damp, no odor. 50% sand, 50% gravel, 0% organic	Sampled 102" comp @ 1604 Sampled @ 1607 Sampled comp @ 1610 Sampled 103" comp @ 1611

end of hole

BWS



Boring ID

HA-02B

Project Number

0171.067

Sheet of

SOIL BORING LOG

Project: Gattunville

Location: Near creek at corner of landfield

Drilling Contractor: -

Drilling Method:

Start Date: 2/3/22

End Date:

Field Personnel: GS BW

Sampling Method: Hand dug

Water Levels:

Total Depth: 2.0

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		

(OL)

Dark black-brown silty organic material with large roots, uniform and no odor

Sampled @ 1545

Same as above.

Sampled @ 1550

(SW)

Dark brown, very poorly sorted sand with gravel and fines. Pebbles up to 3/4" up to 40% silt. no odor

Sampled @ 1552

end of tube

Filler

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.5			black-brown organic material slightly silty, very rooty, traces of reddish brown oxidation, no color	Sample @ 1510
1.0			Same as above, but white entirely oxidized to reddish-brown.	Sample @ 1515
2.0			Same as above until approx 1.75' with sharp contact into? - grey poorly sorted gravelly sand with 10 to 1" rounded pebbles, difficult to extract due to water.	Sample @ 1525
			end of hole B.W.	



Boring ID

AA-0217

Project Number

Sheet of

SOIL BORING LOG

Project: Galaville LP

Location: Near wetland. End of fire debris.

Drilling Contractor:

Drilling Method:

Start Date: 2/3/12

End Date: 2/3/12

Field Personnel:

Sampling Method: hand dug

Water Levels: 3" bgs

Total Depth:

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.5		(PT)	Dark brown silty organic material, loose, wet, no odor, rounded 1.5" granitic cobbles	Sampled @ 14:40
1.0			Same as above, but with denser root material and large, rotten wood fragments. no odor.	Sampled @ 14:45
2.0		(OL)	Same as above, transitioning @ ~1.75" to grey silty organic material. 75% organic, with sulfur odor, very large (1-5") and dense wood debris.	Sampled @ 14:55
			End of Hole	
			End	



Boring ID

HA-03A

Project Number

Sheet of

SOIL BORING LOG

Project: STONNDEL

Location: boggy wetland ~ 50 ft from stream

Drilling Contractor:

Drilling Method:

Start Date: 7/3/22

End Date: 2/3/22

Field Personnel:

Sampling Method: Hand dug

Water Levels:

Total Depth:

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.5		(OL)	Very wet, dark brown, slightly silty organic material with sparse roots. Jelly-like. No odor	Sampled @ 15:05
1.0		(ML)	Dark grey moderately sorted sandy silt. ~ 50% fine organic material and roots. Buff color, very moist.	Sampled @ 15:15 Comp Jar sampled @ 15:20
1.5		(SP)	light grey coarse sand, well sorted with wood chips.	widened hole to examine structure. Sampled @ 15:30 Comp jar @ 15:33
2.0			end of hole	



Boring ID

HA-03B

Project Number

Sheet of

SOIL BORING LOG

Project: GARDVILLE LP

Location: Stream bank, ~1-2 ft gl. olive stream

Drilling Contractor:

Drilling Method:

Start Date: 7/3/22

End Date: 7/3/22

Field Personnel:

Sampling Method: Hand dug

Water Levels:

Total Depth:

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		

0.5		0-0.5 (ML)	Dark brown silt with few organic material, very wet.	sampled 8/17/20
1.0		0.5-1.0 (SW) M	purple-grey silty sand with few organics. Moderately wet. No odor. damp.	sampled 8/17/20
		1.0-2.0 (SW)	light grey, moderately wet med- coarse sand w/ <10% silt. Damp, no odor.	sampled 8/17/20
2.0			End of hole	
			Open	



Boring ID

HA-03D

Project Number

Sheet of

SOIL BORING LOG

Project: GARDNER L F

Location:

Drilling Contractor:

Drilling Method:

Start Date: 7/3/22

End Date: 7/3/22

Field Personnel:

Sampling Method: HAND DUG

Water Levels:

Total Depth:

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.5		(OL)	Dark brown and mottled red brown organic material w/ < 20% silt, rooty, wet, organic odor	Sampled 10:00
1.0			Reddish brown organic material, < 20% silt, very wet, organic odor	Sampled 10:30
1.5		(ML)	gray sandy (< 10%) silt, with < 20% organic matter Well sorted sparse rooty material, damp	Sampled @ 10:30
2.0			end of hole	
			BHW	



Boring ID.

HA-03 ✓

Project Number

Sheet of

SOIL BORING LOG

Project: Eatonville 15

Location:

Drilling Contractor:

Drilling Method:

Start Date: 2/3/12

End Date: 2/3/12

Field Personnel: B. Warner

Sampling Method: Pole Post hole digger

Water Levels:

Total Depth:

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.0	(OL)	0-0.5	Dark brown silty organic material rocky and lumpy. < 20% silt. Dump.	Sampled 9:25
0.5		0.5-1.0	Wet, reddish brown organic material w/ < 20% sandy silt. Very strong sulfuric odor.	Sampled 9:30
1.0		1.0-2.0	(1.0-2.0) Purple-brown organic material w/ < 20% silt. wet, organic odor.	Sampled 9:45
1.5				
2.0			End of hole	
			BM	



Boring ID

HA-04B

Project Number

0171.007

Sheet of

SOIL BORING LOG

Project: Eatonville Landfill

Location:

Drilling Contractor:

Drilling Method: post hole digger

Start Date: 2/1/22

End Date: 2/1/22

Field Personnel:

Sampling Method: hand dug

Water Levels: water near transect location

Total Depth: 2.0

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.0	0.0-0.5	(OL)	red-brown, organics and silty clay, moist 5 in deep (bgs) dark gray/black blue/brown silt w/ roots, moist	sampled @ 1440
0.5	0.5-1.0	(ML)	Dark gray, loose sandy silt dense, moist, uniform w/ 3 in deep lighter gray sandy silt, dense, moist, uniform	sampled @ 1445
1.0	1.0-2.0	(OL)	SAA (0.0-0.5) with less root matter.	sampled @ 1450
2.0				

Boring ID **HA-04D**

Project Number

Sheet of

SOIL BORING LOGProject: **Eatonville Landfill**Location: **Eatonville**

Drilling Contractor:

Drilling Method: **post hole driver**Start Date: **2/1/2**End Date: **2/1/2**Field Personnel: **GS, BW**Sampling Method: **hand dug**

Water Levels:

Total Depth: **2.0 ft**

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.0	0.0-0.5	(PT)	highly organic (85%) remainder reddish brown silt. under a tree. moist, water pooled at bottom.	sampled at 1600
0.5	0.5-1.0		SAA but slightly more red color and more wood-based organics. slight sulfuric odor.	sampled at 1605
1.0	1.0-2.0	(OL)	SAA but 75% organic with some sand (10%) rest silt. no odor of sulfur is less strong.	sampled at 1610
2.0				

Boring ID **HA-04E**Project Number
071-067

Sheet of

SOIL BORING LOGProject: **Eatonville landfill**

Location:

Drilling Contractor:

Drilling Method: **post-hole digger**Start Date: **2/1/22**

End Date:

Field Personnel: **GS, BW**Sampling Method: **hand dug**

Water Levels:

Total Depth: **2.0 ft**

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.0	0.0-0.5	(PT)	Highly organic (85%) plus silt; many roots and wood pieces, strong sulfenic odor	Sampled at ¹⁶ 04:35 comp. at 04:32 1630
0.5	0.5-1.0		SAA	Sampled at 04:35 1635 Comp at 1640
1.0	1.0-2.0		SAA but many more big roots at this depth.	Sampled at 04:35 1645 Comp at 1650
2.0				

Boring ID
HA-05AProject Number
0171.067

Sheet of

SOIL BORING LOGProject: **Eatonville**Location: **Eatonville**

Drilling Contractor:

Drilling Method: **hand post hole digger**Start Date: **2/1/22**

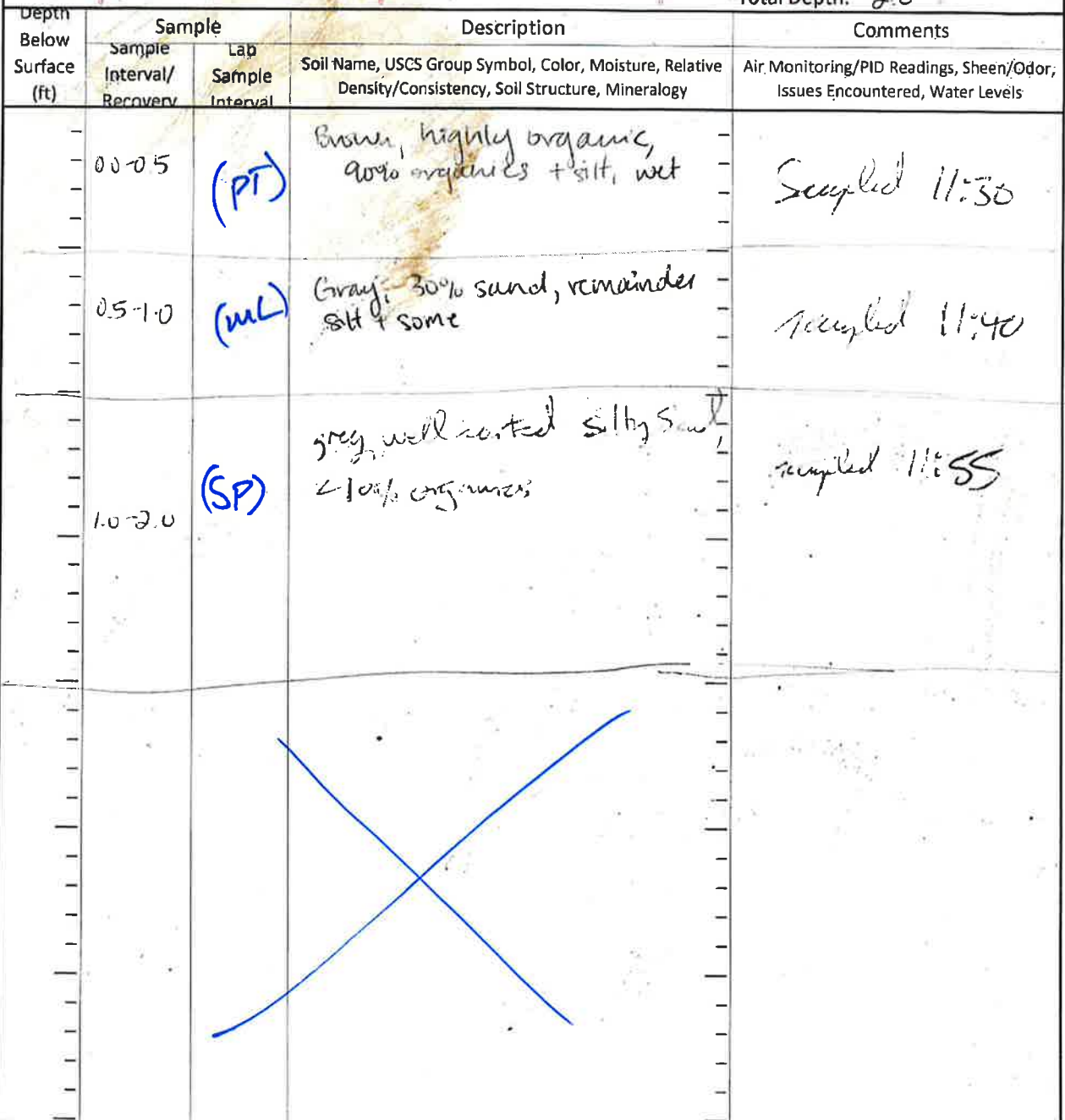
End Date:

Field Personnel: **BW, GS**Sampling Method: **hand dug**

Water Levels:

Total Depth:

Depth Below Surface (ft)	Sample		Description Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Comments	
	Sample Interval/ Recovery	Lab Sample Interval		Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Levels	
0.0	0.0-0.5	(M4)	dark brown, silt & organics, several roots, uniform, wet	sampled at 1225	COMP HA-05-comp-0.0-0.5 sampled at 1220
0.5	0.5-1.0		dark brown, 25% sand, rest silt & organics, very wet, uniform	sampled @ 1230	comp sampled @ 1235 HA-05-comp- 0.5-1.0
1.0	1.0-2.0	(SW)	gray brown, well graded sand (90%) with silt and very wet, uniform	sampled @ 1240	comp sampled @ 1245 HA-05-comp- 1.0-2.0
2.0					





Boring ID

HA-05D

Project Number

0171-067

Sheet of

SOIL BORING LOG

Project: Eatonville Landfill

Location: Eatonville

Drilling Contractor:

Drilling Method: post hole driver

Start Date: 2/1/22

End Date: 2/1/22

Field Personnel: AS, BW

Sampling Method: hand dug

Water Levels: N/A

Total Depth: 2.0

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/ Recovery	Lab Sample Interval		
0.0			Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Levels
0.5	0-0.5	(PT)	Thick roots/organics at top Very wet, brown (waterlogged) organic fines, uniform	Sampled at 10:00
1.0	0.5-1.0	(OL)	Very wet, brown, silts and organics, uniform	Sampled 1010
1.0	1.0-2.0	(ML) (SP)	completely wet (full of water) transitions from top dark brown organics + fines, to gray sand (90% sand) well-sorted medium grain w/ roots	Sampled 1030
2.0				



Boring ID HA-05E

Project Number 0171.067

Sheet of

SOIL BORING LOG

Project: Eatonville Landfill

Location: Eatonville, WA

Drilling Contractor: N/A

Drilling Method: Post-hole digger / shovel

Start Date: 2/1/22

End Date: 2/1/22

Field Personnel: GS, BW

Sampling Method: Post-hole / shovel / hand

Water Levels: ~~###~~ some standing water in wetland near this location

Total Depth: 2.0 ft

Depth Below Surface (ft)	Sample		Description	Comments
	Sample Interval/Recovery	Lab Sample Interval		
0.0				
0.5	0-0.5	(PT) (OU)	Top-organics ~2in. 2-6in gray organics + sand 50% sand, 50% silts/fines Damp, uniform	sampled 9:00
1.0	0.5-1.0	(SM)	Full interval gray/brown sand/silt (50% sand 50% silt / fines) Wet at bottom Uniform	sampled 9:10
1.5	1.0-2.0	(SM)	Top 0.5ft gray/brown, 60% sand, 40% fines Lower 0.5ft lighter gray 70% sand, 30% fines uniform, very wet, reducing odor	sampled 9:20
2.0				

1 of 2

SURFACE SAMPLING DATA SHEET

Project Name: <i>Enterville RI</i>	Project Number:	Location: <i>Enterville</i>	Station ID: <i>HA-01</i>	Date: <i>9/14/21</i>
Weather Conditions: <i>Sunny</i>	Sampling Personnel: <i>Ben + Genevieve</i>		Sampling Equipment: <i>Auger</i>	
Depth Sounding Method:	Gauge Source: <i>J</i>		Gauge Height (ft)/Time:	
Target Coordinates (NAD 83):	Easting: <i>See below</i>	Northing:		

ATTEMPT SUMMARY

Attempt #	Time	Coordinates		Water Depth (ft)	Recovery Depth (cm)	Notes	Sample Interval (cm)
		Latitude	Longitude				
<i>01E</i>	<i>1210</i>	<i>46.859261</i>	<i>122.322436</i>	<i>-</i>	<i>20</i>	<i>Alternate location on slope near carbody</i>	<i>30</i>
<i>01D</i>	<i>1220</i>	<i>46.859288</i>	<i>122.322635</i>	<i>-</i>	<i>30</i>	<i>Alternate location on slope in debris</i>	<i>30</i>
<i>01G</i>	<i>1235</i>	<i>46.859388</i>	<i>122.322852</i>	<i>-</i>	<i>30</i>	<i>Alternate location on slope near zip line terminus</i>	<i>30</i>

Definitions: cm = centimeter, ft = feet, JC = jaws closed, OLW = overlying water

ATTEMPT #:

Grain Size Distribution (%G/S/F): <i>10/39/60</i>	Odor/Sheen/Visual Impacts: <i>-</i>
Description: <i>HA-01E</i> <i>Gravily sand with silt (SW-SM), grey, fine sand to med rounded gravel, loose, dry, plastic and debris (leaf-fall) removed</i>	
Comments: <i>Ref-sil on large debris</i>	
Sampled (Y/N): <i>Y</i>	Sample Time: <i>1215</i> Sample ID: <i>-</i>

ATTEMPT #:

Grain Size Distribution (%G/S/F): <i>0/70/30</i>	Odor/Sheen/Visual Impacts: <i>chucked? from burnt tree?</i>
Description: <i>HA-01D</i> <i>org. soil (old), black/dark brown, silt with sand, loose, damp, surrounded by debris, soil</i>	
Comments: <i>Near stump surrounded by debris. Alternate location</i>	
Sampled (Y/N): <i>Y</i>	Sample Time: <i>1225</i> Sample ID: <i>-</i>

ATTEMPT #:

Grain Size Distribution (%G/S/F): <i>0/30/70</i>	Odor/Sheen/Visual Impacts:
Description: <i>HA-01C</i> <i>Sand with silt (SW-SM), black, well graded, wet, loose, lots of organic debris adjacent to leaf-fall debris.</i>	
Comments: <i>Alternate surrounded by debris, near zip line terminus</i>	
Sampled (Y/N):	Sample Time: <i>1240</i> Sample ID:

SAMPLE INFORMATION

Sample ID	Time	Type (Primary, Duplicate, MS/MSD, EPA Split)	# of Containers

20F2

SURFACE SAMPLING DATA SHEET

Project Name: Edenville RT	Project Number:	Location: Edenville	Station ID: HA-01	Date: 9/14/21
Weather Conditions: overcast	Sampling Personnel: Ben + Genevieve			
Depth Sounding Method:	Sampling Equipment: Agar			
Target Coordinates (NAD 83):	Easting: see below	Gauge Source:		
	Northing: see below	Gauge Height (ft)/Time:		

ATTEMPT SUMMARY

Attempt #	Time	Coordinates		Water Depth (ft)	Recovery Depth (cm)	Notes	Sample Interval (cm)
		Latitude	Longitude				
01B	1255	46.859498	122.322998	0	30	up slope from P203 loc near drainages and debris	30
01A	1300	46.859642	122.323102	0	30	adjacent to drainage	30

Definitions: cm = centimeter, ft = feet, JC = jaws closed, OLW = overlying water

ATTEMPT #:

Grain Size Distribution (%G/S/F):	0/75/25	Odor/Sheen/Visual Impacts:	
Description:	HA-01B Silt with Sand (sandy), black, no plasticity, fine sand, lots of organic debris, very soft, wet, soil.		
Comments:	debris slope from P203 location, drainages on both sides, lots of debris		
Sampled (Y/N):	Y	Sample Time:	1255
Sample ID:			

ATTEMPT #:

Grain Size Distribution (%G/S/F):	/ /	Odor/Sheen/Visual Impacts:	
Description:	HA-01A Silt with Sand and gravel (mL), light brown, well graded and fine to coarse rounded gravels, loose, wet, some organic debris, glass pieces		
Comments:	up slope from P203 adjacent to drainage.		
Sampled (Y/N):	Y	Sample Time:	1305
Sample ID:			

ATTEMPT #:

Grain Size Distribution (%G/S/F):	/ /	Odor/Sheen/Visual Impacts:	
Description:			
Comments:			
Sampled (Y/N):		Sample Time:	
Sample ID:			

SAMPLE INFORMATION

Sample ID	Time	Type (Primary, Duplicate, MS/MSD, EPA Split)	# of Containers
HA-01-0921	1310	Primary	6 (5 MeOH vials)

SURFACE SAMPLING DATA SHEET

Project Name: <u>Estuary 11c RI</u>	Project Number:	Location: <u>Estuary 11c</u>	Station ID: <u>HA-02</u>	Date: <u>9/14/21</u>
Weather Conditions:	<u>Sunny</u>		Sampling Personnel: <u>Ben + Genevieve</u>	
Depth Sounding Method:			Sampling Equipment: <u>Auger</u>	
Target Coordinates (NAD 83):	Easting: <u>See below</u>	Gauge Source:		
	Northing: <u>See below</u>	Gauge Height (ft)/Time:		

ATTEMPT SUMMARY

Attempt #	Time	Coordinates		Water Depth (ft)	Recovery Depth (cm)	Notes	Sample Interval (cm)
		Latitude	Longitude				
02B	1120	46.859399	122.323139	0	30	on bench along drainage	30
02A	1135	46.859540	122.323260	0	30	on edge of drainage near slope	30

Definitions: cm = centimeter, ft = feet, JC = jaws closed, OLW = overlying water

ATTEMPT #:

Grain Size Distribution (%G/S/F): <u>15/55/30</u>	Odor/Sheen/Visual Impacts:
Description: <u>HA-02B</u> <u>Silt with sand and gravel (fine), dark brown, fine to coarse gray sand, fine gravel, organic debris, light, loose, soil.</u>	
Comments: <u>on edge of drainage, tires nearby, water at bottom of excavation.</u>	
Sampled (Y/N):	Sample Time: <u>1125</u> Sample ID:

ATTEMPT #:

Grain Size Distribution (%G/S/F): <u>/ /</u>	Odor/Sheen/Visual Impacts:
Description: <u>HA-02A</u> <u>organic soil (OH), dark brown, silt with sand, wet, loose, gray sand @ 28 cm.</u>	
Comments: <u>on edge of drainage at the toe of the slope, tire up L</u>	
Sampled (Y/N):	Sample Time: <u>1140</u> Sample ID:

ATTEMPT #:

Grain Size Distribution (%G/S/F): <u>/ /</u>	Odor/Sheen/Visual Impacts:
Description:	
Comments:	
Sampled (Y/N):	Sample Time: Sample ID:

SAMPLE INFORMATION

Sample ID	Time	Type (Primary, Duplicate, MS/MSD, EPA Split)	# of Containers
<u>HA-02-0921</u>	<u>1145</u>	<u>Primary</u>	<u>2</u>

SURFACE SAMPLING DATA SHEET

Project Name: <i>Estoville RT</i>	Project Number:	Location: <i>Estoville</i>	Station ID: <i>HA-02</i>	Date: <i>9/14/21</i>
Weather Conditions:	<i>Sunny</i>		Sampling Personnel: <i>Ben and Genevieve</i>	
Depth Sounding Method:			Sampling Equipment: <i>Auger</i>	
Target Coordinates (NAD 83):	Easting: —	Gauge Source: —		
	Northing: —	Gauge Height (ft)/Time: —		

ATTEMPT SUMMARY

Attempt #	Time	Coordinates		Water Depth (ft)	Recovery Depth (cm)	Notes	Sample Interval (cm)
		Latitude	Longitude				
<i>02D</i>	<i>1040</i>	<i>46.859196</i>	<i>122.322766</i>	—	<i>30</i>	<i>water in hole</i>	<i>30</i>
<i>02E</i>	<i>1055</i>	<i>46.859148</i>	<i>122.322597</i>	—	<i>30</i>	<i>water in hole</i>	<i>30</i>
<i>02C</i>	<i>1105</i>	<i>46.859288</i>	<i>122.322972</i>	—	<i>30</i>		

Definitions: cm = centimeter, ft = feet, JC = jaws closed, OLW = overlying water

ATTEMPT #:

Grain Size Distribution (%G/S/F): *0/75/25* Odor/Sheen/Visual Impacts:Description: *HA-02D**Organic soil (OH), dark brown, silt with sand, loose, wet, soil, water at bottom of excavation.*

Comments:

Sampled (Y/N): *Y* Sample Time: *1045* Sample ID: —

ATTEMPT #:

Grain Size Distribution (%G/S/F): *0/80/40* Odor/Sheen/Visual Impacts:Description: *HA-02E**Organic soil (OH), dark brown, silt with sand, loose, dry top ~10cm then going to wet, soil, some mycelium (C), water at bottom of excavation.*

Comments:

Sampled (Y/N): *Y* Sample Time: *1100* Sample ID: —

ATTEMPT #:

Grain Size Distribution (%G/S/F): *0/60/40* Odor/Sheen/Visual Impacts:Description: *HA-02C**Organic soil (OH), dark brown, silt with sand, very soft, wet, soil. At ~24 cm dry sand with trace fine gravel.*

Comments:

*In fire field adjacent to running water.*Sampled (Y/N): *Y* Sample Time: *110* Sample ID: —

SAMPLE INFORMATION

Sample ID	Time	Type (Primary, Duplicate, MS/MSD, EPA Split)	# of Containers

1 of 2

SURFACE SAMPLING DATA SHEET

Project Name: Esterville RI	Project Number:	Location: Esterville	Station ID: HA-03	Date: 9/13/21
Weather Conditions: Sunny	Sampling Personnel: Ben & Genevieve		Sampling Equipment: Post hole / Auger	
Depth Sounding Method:	Gauge Source: ---		Gauge Height (ft)/Time: ---	
Target Coordinates (NAD 83):	Easting: ---		Northing: ---	

ATTEMPT SUMMARY

Attempt #	Time	Coordinates		Water Depth (ft)	Recovery Depth (cm)	Notes	Sample Interval (cm)
		Latitude	Longitude				
03E	1500	46.859029	122.322678	0	30	near tree pond - insectee	0-30
03D	1525	46.859091	122.322788	31 cm	30	in boggy area, collected with pike	0-30
03C	1536	46.859184	122.323113	0	30	in opening	0-30

Definitions: cm = centimeter, ft = feet, JC = jaws closed, OLW = overlying water

ATTEMPT #1

Grain Size Distribution (%G/S/F): 0/30/70	Odor/Sheen/Visual Impacts: None
Description: HA-03E near insect tree organic soil (at), dark brown, sand with silty sand, lots of roots and organic debris, damp, loose soil	
Comments: less than 5' from target. No point collected	
Sampled (Y/N): Y	Sample Time: 1510 Sample ID: ---

ATTEMPT #2

Grain Size Distribution (%G/S/F): 0/45/55	Odor/Sheen/Visual Impacts: None
Description: HA-03D in boggy area organic soil (at), dark brown, silty sand, lots of roots and organic debris, loose, wet, soil	
Comments: Coordinates taken with phone previously marked.	
Sampled (Y/N): Y	Sample Time: 1530 Sample ID: ---

ATTEMPT #3

Grain Size Distribution (%G/S/F): 0/30/30	Odor/Sheen/Visual Impacts:
Description: organic soil (at), dark brown, silt with sand, lots of roots and organic debris, loose, wet, soil @ ~30cm changes to grey sand with silt	
Comments: coordinates taken with phone, previously marked.	
Sampled (Y/N): Y	Sample Time: 1540 Sample ID: ---

SAMPLE INFORMATION

Sample ID	Time	Type (Primary, Duplicate, MS/MSD, EPA Split)	# of Containers

252

SURFACE SAMPLING DATA SHEET

Project Name: Eatonville RT	Project Number:	Location: Eatonville	Station ID: HA-03	Date: 9/13/21
Weather Conditions: Sunny	Sampling Personnel: Ben and Genevieve		Sampling Equipment: Auger / dig	
Depth Sounding Method:	Gauge Source:		Gauge Height (ft)/Time:	
Target Coordinates (NAD 83):	Easting: See below	Northing: See below		

ATTEMPT SUMMARY

Attempt #	Time	Coordinates		Water Depth (ft)	Recovery Depth (cm)	Notes	Sample Interval (cm)
		Latitude	Longitude				
03B	1550	46.859305	122.323216	0	30	Phone point	30
03A	1605	46.859449	122.323418	0	30	phone point	30

Definitions: cm = centimeter, ft = feet, JC = jaws closed, OLW = overlying water

ATTEMPT #:

Grain Size Distribution (%G/S/F): 0/70/30
 Description: HA-03B ^{dark brown} organic soil (OH), silt with sand, lots of organic debris, loose, wet, soil, @ ~30 cm sand, grey with silt
 Comments: Point collected with phone

Sampled (Y/N): y Sample Time: 1555 Sample ID:

ATTEMPT #:

Grain Size Distribution (%G/S/F): 0/60/40
 Description: HA-03A ^{Dark brown} organic soil (OH), silt with sand, lots of organic debris, loose, damp, soil
 Comments: Point collected with phone

Sampled (Y/N): y Sample Time: 1615 Sample ID:

ATTEMPT #:

Grain Size Distribution (%G/S/F): / / Odor/Sheen/Visual Impacts:

Description:

Comments:

Sampled (Y/N): Sample Time: Sample ID:

SAMPLE INFORMATION

Sample ID	Time	Type (Primary, Duplicate, MS/MSD, EPA Split)	# of Containers
HA-03-0921	1620	Primary	
HA-1003-0921	1625	Duplicate	

LOG OF SOIL BORING

PROJECT NAME
LOCATION
DRILLED BY
DRILL METHOD
FIELD PERSONNEL

Weyerhaeuser Eatonville Landfill
Eatonville, Washington
Stratus
Hollow Stem Auger
M. Greenfield

BORING NO. B-1
PAGE 1 of 2
TOTAL DEPTH 26.5'
DATE START 9/14/21
DATE COMPLETED 9/14/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
<1"	0-1-1 (2)	2.5'-4.0'	S-1				0 to 8.5 feet: SANDY GRAVEL (GW) , fine to coarse, subrounded to rounded, trace roots and glass. (FILL DEPOSIT)		--	--	--	--
--	1-1-2 (3)	5.0'-6.5'	S-2		5		@ 5.0 feet: some wood debris, glass and plastic.		--	--	--	--
--	9-8-1 (9)	7.5'-9.0'	S-3						--	--	--	--
<1"	0-0-1 (1)	10.0'- 11.5'	S-4		10		8.5 to 15.0 feet: WASTE , paper, plastic, organic debris, fine to coarse, gravel-sized, some sand, 23 percent organic content. (LANDFILL)		--	--	--	34.6
--	0-1-1 (2)	12.5'- 14.0'	S-5						--	--	--	--
--	2-3-3 (6)	15.0'- 16.5'	S-6		15		15.0 to 20.0 feet: GRAVELLY SAND (SW) , medium, trace to some silt, fine rounded gravel, possible brick debris, white. (NATIVE)		--	--	15	14.6
					20							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME
LOCATION
DRILLED BY
DRILL METHOD
FIELD PERSONNEL

Weyerhaeuser Eatonville Landfill
Eatonville, Washington
Stratus
Hollow Stem Auger
M. Greenfield

BORING NO. B-1
PAGE 2 of 2
TOTAL DEPTH 26.5'
DATE START 9/14/21
DATE COMPLETED 9/14/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
--	4-7-13 (20)	20.0'- 21.5'	S-7					20.0 to 26.5 feet: SILTY CLAY (CH) , gray and brown mottled, high plasticity, (LL = 52%, PL = 29%, PI = 23%), some sand and trace rounded gravel.	--	--	83.6	30.4
--	6-14-19 (33)	25.0'- 26.5'	S-8		25			@ 25.0 feet: gray, sandy below.	48.4	0.5	51.1	18.7
					30			Bottom of hole = 26.5 feet.				
					35							
					40							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.

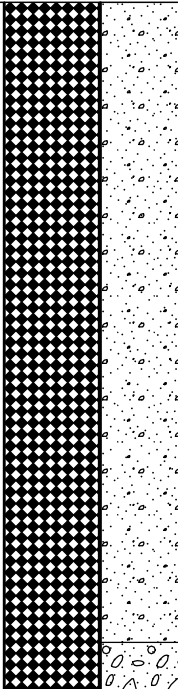



LOG OF SOIL BORING

PROJECT NAME
LOCATION
DRILLED BY
DRILL METHOD
FIELD PERSONNEL

Weyerhaeuser Eatonville Landfill
Eatonville, Washington
Stratus
Hollow Stem Auger
M. Greenfield

BORING NO. **B-2***
PAGE **1 of 1**
TOTAL DEPTH **10.8'**
DATE START **9/13/21**
DATE COMPLETED **9/13/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
--	2-3-4 (7)	2.5'-4.0'	S-1					0 to 10.0 feet: GRAVELLY SAND (SW) , brown, trace silt, medium to coarse, subrounded to rounded gravel, scattered roots, wood debris and cobbles. (FILL DEPOSIT)	--	--	--	--
--	7-6-4 (10)	5.0'-6.5'	S-2		5			@ 5.0 feet: driller says very difficult drilling.	--	--	--	3.8
--	9-9-7 (16)	7.5'-9.0'	S-3					@ 7.5 feet: roots and wood debris absent below 7.5 feet. @ 8.0 feet: auger refusal after sampling, move 5.0 feet west and re-drill to 10.0 feet.	--	--	--	--
--	7-50/4" (50/4")	10.0'-10.8'	S-4		10			10.0 to 10.8 feet: GRAVEL (GW) , fine to coarse, rounded to subangular, some sand. (NATIVE) Refusal = 10.8 feet.	--	--	--	--
					15							
					20							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.

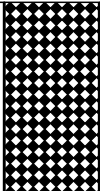
*Boring B-2 was previously referred to as PZ-01. Renamed to avoid confusion with permanent well PZ-01.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Hollow Stem Auger**
 FIELD PERSONNEL **M. Greenfield**

BORING NO. **B-3***
 PAGE **1 of 1**
 TOTAL DEPTH **3.0'**
 DATE START **9/13/21**
 DATE COMPLETED **9/13/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
--	7-10-8 (18)	1.5'-3.0'	S-1				0 to 3.0 feet: SANDY GRAVEL (GW), brown, fine to coarse, subrounded to rounded, cobbles visible at ground surface. (NATIVE) @ 1.5 feet: sampler becomes bent during sampling.	--	--	--	3.7	
					5 <							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.

*Boring B-3 was previously referred to as PZ-02. Renamed to avoid confusion with permanent well PZ-02.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-01**
 PAGE **1 of 5**
 TOTAL DEPTH **100.0'**
 DATE START **11/9/21**
 DATE COMPLETED **11/10/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
55%	--	--	--					0 to 35.0 feet: SILTY AND SANDY GRAVEL (GW) , brown-gray, damp, unconsolidated, and clast-supported with subrounded to subangular cobble up to 5 inches (mostly >2 inches). @ 0.0 to 1.0 feet: silty matrix with rooty and organic fragments. @ 1.0 to 2.0 feet: short interval with >70 percent medium and coarse sand without clast-supported cobbles.	--	--	--	--
27%	--	--	--						--	--	--	--

REMARKS

Groundwater measured at 73.13 feet below ground surface at 10:25 on 11/10/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-01**
 PAGE **2 of 5**
 TOTAL DEPTH **100.0'**
 DATE START **11/9/21**
 DATE COMPLETED **11/10/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
					25			0 to 35.0 feet: SILTY AND SANDY GRAVEL (GW) , continued.				
20%	--	--	--		30			@ 30.0 to 35.0 feet: Bag tore open while collecting this drive but material on the ground appears similar.	--	--	--	--
110%	--	--	--		35			35.0 to 49.0 feet: SILTY AND GRAVELLY SAND (SW) , blue-gray, damp, with <10 percent 1 inch subrounded cobbles. @ 36.0 to 40.0 feet: grades into very moist, light brown and moderately sorted sands with up to 1.5 inch cobbles, firm consistency that retains molded shape.	--	--	--	--
					40							

REMARKS

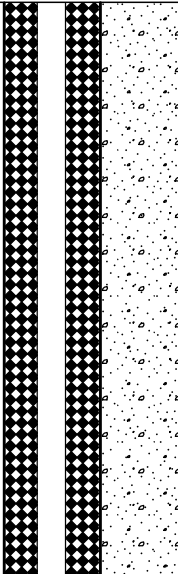
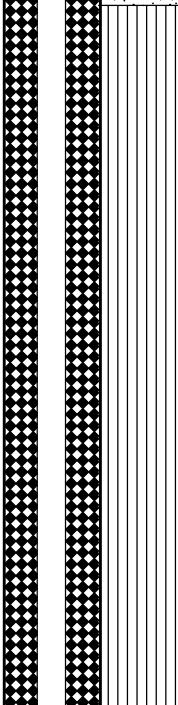
Groundwater measured at 73.13 feet below ground surface at 10:25 on 11/10/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-01**
 PAGE **3 of 5**
 TOTAL DEPTH **100.0'**
 DATE START **11/9/21**
 DATE COMPLETED **11/10/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
110%	--	--	--		45			35.0 to 49.0 feet: SILTY AND GRAVELLY SAND (SW), continued. @ 40.0 to 49.0 feet: returns to silty blue-gray sand with <10 percent subrounded cobbles K1.5 inches, firm and notably less moist than previous interval. @ 44.0 feet: bore-cut cobbles. @ 45.5 feet: bore-cut cobbles.	--	--	--	--
110%	--	--	--		50			49.0 to 79.0 feet: SANDY SILT (ML), blue-gray, damp, with <10 percent 1 inch subrounded cobbles up to 2 inches and lesser coarse sands; matrix contains scattered oxidized pink blebs throughout.. @ 49.0 feet: bore-cut cobbles.	--	--	--	--
					55							
					60							

REMARKS

Groundwater measured at 73.13 feet below ground surface at 10:25 on 11/10/2021.



LOG OF SOIL BORING

PROJECT NAME
LOCATION
DRILLED BY
DRILL METHOD
FIELD PERSONNEL

**Weyerhaeuser Eatonville Landfill
Eatonville, Washington
Holt Services
Sonic
B. Warner and J. Sherrod**

BORING NO.	PZ-01
PAGE	4 of 5
TOTAL DEPTH	100.0'
DATE START	11/9/21
DATE COMPLETED	11/10/21

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REMARKS

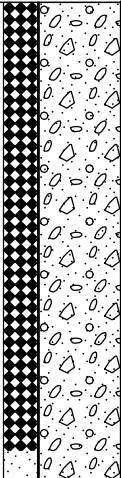
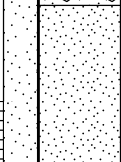
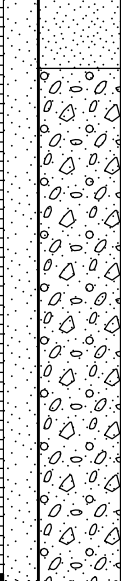

Groundwater measured at 73.13 feet below ground surface at 10:25 on 11/10/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-01**
 PAGE **5 of 5**
 TOTAL DEPTH **100.0'**
 DATE START **11/9/21**
 DATE COMPLETED **11/10/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
100%	--	--	--		85			79.0 to 87.5 feet: SANDY GRAVEL (GW) , blue-gray, wet, clast-supported cobbles and unconsolidated with a coarse sandy matrix; very large bore-cut cobbles throughout; matrix is slightly below 84.0 feet; very sharp lower contact into sands.	--	--	--	--
					90			87.5 to 91.0 feet: SILTY SAND (SP) , blue-gray, oxidized orange below 89.5 feet; well-sorted, massive, friable, with a fine to medium grain size and sharp basal contact into gravels.	--	--	--	--
90%	--	--	--		95			91.0 to 100.0 feet: SANDY GRAVEL (GW) , blue-gray sandy gravel; moist, unconsolidated, and clast-supported with a coarse sandy matrix and cobbles up to 2 inches.				
					100			Boring terminated = 100.0 feet; installed well to 99.0 feet (see well details).				

REMARKS

Groundwater measured at 73.13 feet below ground surface at 10:25 on 11/10/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-02**
 PAGE **1 of 6**
 TOTAL DEPTH **120.0'**
 DATE START **11/8/21**
 DATE COMPLETED **11/8/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
67%	--	--	--		5		0 to 27.5 feet: SANDY GRAVEL (GW) , light gray-brown, damp, poorly sorted, unconsolidated and capped by a dark brown 4 inch cap or organic debris, sharp lower contact into sands.		--	--	--	--
70%	--	--	--		10		@ 11.0 feet: scattered, large 1- to 6-inch cobbles.		--	--	--	--
					15							
					20							

REMARKS

Groundwater measured at 80.66 feet below ground surface at 7:42 on 11/19/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-02**
 PAGE **2 of 6**
 TOTAL DEPTH **120.0'**
 DATE START **11/8/21**
 DATE COMPLETED **11/8/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
100%	--	--	--		25		0 to 27.5 feet: SANDY GRAVEL (GW) , continued.		--	--	--	--
120%	--	--	--		30		27.5 to 88.0 feet: SILTY SAND (SM) , light gray, poorly sorted and well indurated with <10 percent subrounded <1 inch cobbles, grading to dark gray by 32.0 feet. Short cobbly zones throughout, with up to 20 percent clasts up to 4 inches.		--	--	--	--
					35		@ 35.0 feet: increasingly indurated and very firm.					
					40							

REMARKS

Groundwater measured at 80.66 feet below ground surface at 7:42 on 11/19/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-02**
 PAGE **3 of 6**
 TOTAL DEPTH **120.0'**
 DATE START **11/8/21**
 DATE COMPLETED **11/8/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
100%	--	--	--					27.5 to 88.0 feet: SILTY SAND (SM), continued.	--	--	--	--
100%	--	--	--		45				--	--	--	--
120%	--	--	--		50				--	--	--	--
					55			@ 50.0 to 60.0 feet: bore-cut cobbles at base of this drive. @ 50.0 to 70.0 feet: large 5- to 6-inch unsupported cobbles scattered throughout. @ 55.0 feet: slightly moist.				
					60							

REMARKS

Groundwater measured at 80.66 feet below ground surface at 7:42 on 11/19/2021.



LOG OF SOIL BORING

PROJECT NAME	Weyerhaeuser Eatonville Landfill
LOCATION	Eatonville, Washington
DRILLED BY	Holt Services
DRILL METHOD	Sonic
FIELD PERSONNEL	B. Warner and J. Sherrod

BORING NO.	PZ-02
PAGE	4 of 6
TOTAL DEPTH	120.0'
DATE START	11/8/21
DATE COMPLETED	11/8/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
100%	--	--	--					27.5 to 88.0 feet: SILTY SAND (SM) , continued.	--	--	--	--
90%	--	--	--		65			@ 70.0 feet: sand becomes increasingly silty and dark gray below. @ 72.5 to 76.0 feet: well-sorted sandy interval without cobbles.	--	--	--	--
75%	--	--	--		75				--	--	--	--
					80							

REMARKS

Groundwater measured at 80.66 feet below ground surface at 7:42 on 11/19/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-02**
 PAGE **5 of 6**
 TOTAL DEPTH **120.0'**
 DATE START **11/8/21**
 DATE COMPLETED **11/8/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
				▽ @ 7:42 11/9/21				27.5 to 88.0 feet: SILTY SAND (SM), continued. @ 80.0 feet: wood chips encountered.				
120%	--	--	--		85			@ 86.0 feet: groundwater definitively encountered in basal interval of wet medium sand.	--	--	--	--
100%	--	--	--		90			88.0 to 99.0 feet: SANDY GRAVEL (GW), gray, very moist, unconsolidated and poorly indurated with 15- to 70 percent subrounded 1- to 4-inch cobbles with teal and pink oxidized blebs throughout matrix, sharp lower contact into clay, sand is very coarse-grained.	--	--	--	--
					95							
					100			99.0 to 100.0 feet: CLAY (CL), description on following page.				

REMARKS

Groundwater measured at 80.66 feet below ground surface at 7:42 on 11/19/2021.



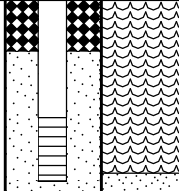
BORING NO.	PZ-02
PAGE	6 of 6
TOTAL DEPTH	120.0'
DATE START	11/8/21
DATE COMPLETED	11/8/21

WEYEREATONVILLE-2.GDS:5.4/8/22.WEYEREATONVILLE-2...0171.067

LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Hand Auger**
 FIELD PERSONNEL **Scott and Thomas**

BORING NO. **PZ-03**
 PAGE **1 of 1**
 TOTAL DEPTH **3.0'**
 DATE START **9/15/21**
 DATE COMPLETED **9/15/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
N/A	--	--	--				<p>0 to 2.7 feet: ORGANIC SOIL (OH), dark brown, wet, loose, with roots.</p> <p>2.7 to 3.0 feet: SAND (SP), gray, medium to coarse, wet, loose. Refusal = 3.0 feet on cobbles; installed well to 2.83 feet (see well details).</p>		--	--	--	--
					5							
					10							
					15							
					20							

REMARKS

Groundwater measured at 3.9 feet below ground surface at 10:22 on 9/15/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Hand Auger**
 FIELD PERSONNEL **Scott and Thomas**

BORING NO. **PZ-04**
 PAGE **1 of 1**
 TOTAL DEPTH **3.5'**
 DATE START **9/15/21**
 DATE COMPLETED **9/15/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
N/A	--	--	--				<div> <div>0 to 3.2 feet: ORGANIC SOIL (OH), dark brown, moist to wet, loose, with roots.</div> <div>3.2 to 3.5 feet: SAND (SP), gray, wet, loose, medium to coarse, refusal on cobbles at 3.5 feet. Refusal = 3.5 feet on cobbles; installed well to 3.44 feet (see well details).</div> </div>		--	--	--	--
					5							
					10							
					15							
					20							

REMARKS

Groundwater measured at 3.94 feet below ground surface at 10:42 on 9/15/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-05**
 PAGE **1 of 2**
 TOTAL DEPTH **30.0'**
 DATE START **11/10/21**
 DATE COMPLETED **11/10/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
67%	--	--	--				0 to 28.0 feet: GRAVEL WITH SAND (GW) , brown to grayish brown, well graded, loose to medium dense, dry to damp, gravel clasts appear 0.2- to 0.7-inch diameter (rounded to subrounded), sand appears medium to coarse with intermixed fine sand pockets, trace silt.		--	--	--	--
95%	--	--	--		5		@ 0.5 feet: fine to medium gravel increasing. @ 7.5 feet: 16-inch cobble.		--	--	--	--
60%	--	--	--		10		@ 10.0 feet: 6-inch fine to medium sand lense with medium gravel. @ 12.0 feet: increasing silt and medium gravel. @ 15.0 feet: increasing from damp to moist.		--	--	--	--
					15							
					20							

REMARKS

Groundwater not encountered during drilling, but observed after well was installed. Groundwater was measured at 28.30 feet below top of casing on 11/17/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Holt Services**
 DRILL METHOD **Sonic**
 FIELD PERSONNEL **B. Warner and J. Sherrod**

BORING NO. **PZ-05**
 PAGE **2 of 2**
 TOTAL DEPTH **30.0'**
 DATE START **11/10/21**
 DATE COMPLETED **11/10/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
50%	--	--	--		25		0 to 28.0 feet: GRAVEL WITH SAND (GW), continued.		--	--	--	--
					30		28.0 to 30.0 feet: SILT (ML), brownish gray, medium stiff to stiff, dry to damp, with 10 percent coarse gravel and 30 percent fine to medium sand, low plasticity and medium to rapid dilatancy. Refusal = 30.0 feet; installed well PZ-05 to 28.0 feet (see well details).					
					35							
					40							

REMARKS

Groundwater not encountered during drilling, but observed after well was installed. Groundwater was measured at 28.30 feet below top of casing on 11/17/2021.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Geoprobe**
 FIELD PERSONNEL **M. Greenfield**

BORING NO. **SB-10**
 PAGE **1 of 3**
 TOTAL DEPTH **47.5'**
 DATE START **9/14/21**
 DATE COMPLETED **9/14/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
20%	--	--	--						--	--	7.8	2.7
14%	--	--	--		5				--	--	--	--
24%	--	--	--		10				--	--	--	--
21%	--	--	--		15				--	--	--	--
					20							

0 to 25.0 feet: SANDY GRAVEL (GW),
 trace silt, rounded to subangular, fine
 to coarse, scattered root debris,
 2-inch rooted zone at ground surface.
 (FILL DEPOSIT)

@ 5.0 feet: roots absent, some sand
 below.

@ 10.0 feet: scattered roots and glass
 debris.

@ 16.5 feet: wet, sandy below.
 @ 17.0 feet: driller says soft.

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Geoprobe**
 FIELD PERSONNEL **M. Greenfield**

BORING NO. **SB-10**
 PAGE **2 of 3**
 TOTAL DEPTH **47.5'**
 DATE START **9/14/21**
 DATE COMPLETED **9/14/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
7%	--	--	--					0 to 25.0 feet: SANDY GRAVEL (GW), continued.	--	--	--	--
46%	--	--	--		25			25.0 to 30.7 feet: CLAYEY SAND (SC), gray to brown, some silt and gravel, rounded gravel particles. (NATIVE)	43.5	13.9	42.7	12.1
--	--	--	--		30			30.7 to 35.0 feet: SANDY GRAVEL (GW), gray, trace to some silt, medium, rounded to subangular gravel.	--	--	--	--
25%	--	--	--		35			35.0 to 47.5 feet: GRAVELLY CLAY (CL), gray, some sand and silt, rounded gravel, medium to high plasticity.	--	--	--	--
					40							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Geoprobe**
 FIELD PERSONNEL **M. Greenfield**

BORING NO. **SB-10**
 PAGE **3 of 3**
 TOTAL DEPTH **47.5'**
 DATE START **9/14/21**
 DATE COMPLETED **9/14/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
--	--	--	--						--	--	--	--
--	--	--	--		45			35.0 to 47.5 feet: GRAVELLY CLAY (CL), continued.	--	--	43.2	19.2
					50			Refusal = 47.5 feet.				
					55							
					60							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Microcore to 5' dual tube**
 FIELD PERSONNEL **Ben and Scott**

BORING NO. **SB-11**
 PAGE **1 of 1**
 TOTAL DEPTH **10.0'**
 DATE START **9/16/21**
 DATE COMPLETED **9/16/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
44%	--	--	--									
					5							
74%	--	--	--									
					10							
					15							
					20							

0 to 6.8 feet: GRAVELLY SAND (SW),
 fine to coarse sands and gravels,
 rounded to subrounded, dry, gray,
 firm. (FILL DEPOSIT)

**6.8 to 10.0 feet: SILT WITH SAND
 AND GRAVEL (ML),** fine sand and
 subrounded fine to medium gravels,
 firm, damp. (NATIVE)
 @ 8.6 to 9.1 feet: sand layer.

Refusal = 10.0 feet due to gravel clast
 size of tube.

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Geoprobe**
 FIELD PERSONNEL **M. Greenfield**

BORING NO. **SB-14**
 PAGE **1 of 1**
 TOTAL DEPTH **15.0'**
 DATE START **9/14/21**
 DATE COMPLETED **9/14/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
--	--	--	--						--	--	--	--
					5		0 to 7.5 feet: SANDY GRAVEL (GW) , brown, trace to some silt, fine to coarse, rounded to subangular.		32	57.1	10.9	5.5
					10		7.5 to 15.0 feet: GRAVELLY CLAY (CL) , brown, some sand and silt, medium to high plasticity, rounded to subrounded gravel.		--	--	--	--
					15		@ 12.0 feet: loose. @ 14.0 feet: gray.					
					20		Refusal = 15.0 feet, damage to tube.					

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.

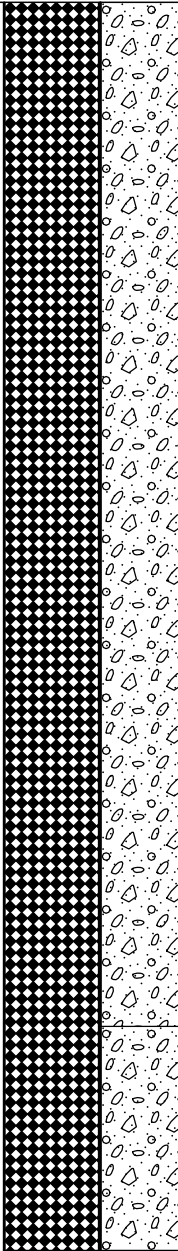


LOG OF SOIL BORING

PROJECT NAME
LOCATION
DRILLED BY
DRILL METHOD
FIELD PERSONNEL

Weyerhaeuser Eatonville Landfill
Eatonville, Washington
Stratus
Geoprobe
M. Greenfield

BORING NO.	SB-16
PAGE	1 of 1
TOTAL DEPTH	19.5'
DATE START	9/14/21
DATE COMPLETED	9/14/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %	
<1"	--	--	--					<p>0 to 16.0 feet: SANDY GRAVEL (GW), fine to coarse, subrounded to rounded, trace glass and plastic fragments. Very little recovery, very soft, no hammering, driller said pushing through air. (FILL DEPOSIT)</p>	--	--	--	--	
0	--	--	--		5								
0	--	--	--		10					--	--	--	--
--	--	--	--		15					--	--	22.8	12.8
					20								
								<p>16.0 to 19.5 feet: SANDY GRAVEL (GW), some silt to silty, rounded to subangular. (NATIVE) @ 16.0 feet: geoprobe resistance starts.</p>					
								Refusal = 19.5 feet.					

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Auger/SPT**
 FIELD PERSONNEL **Ben, Scott and Thomas**

BORING NO. **SB-17**
 PAGE **1 of 3**
 TOTAL DEPTH **41.5'**
 DATE START **9/15/21**
 DATE COMPLETED **9/16/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
--	3-1-1 (2)	5.0'-6.5'	S-1		5		0 to 10.0 feet: SANDY GRAVEL (GW) , fine to coarse, subrounded to rounded, trace glass and plastic fragments. (FILL DEPOSIT)		--	--	--	--
--	3-1-2 (3)	7.5'-9.0'	S-2						--	--	--	--
--	1-1-6 (7)	10.0'- 11.5'	S-3		10		10.0 to 25.0 feet: WASTE , silt with sand and gravel, plastic, organic debris, glass, 10 percent organic content. (LANDFILL) @ 12.0 feet: concrete fragments.		--	--	--	21.1
--	33-4-1 (5)	12.5'- 14.0'	S-4						--	--	--	--
--	1-0-0 (0)	15.0'- 16.5'	S-5		15				--	--	--	--
					20							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Auger/SPT**
 FIELD PERSONNEL **Ben, Scott and Thomas**

BORING NO. **SB-17**
 PAGE **2 of 3**
 TOTAL DEPTH **41.5'**
 DATE START **9/15/21**
 DATE COMPLETED **9/16/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
--	5-4-3 (7)	20.0'- 21.5'	S-6					10.0 to 25.0 feet: WASTE , continued.	--	--	--	--
--	2-3-3 (6)	25.0'- 26.5'	S-7		25			25.0 to 41.5 feet: SAND (SW) , gray mottled orange, some silt, trace rounded to subrounded gravel. (NATIVE)	--	--	11.3	5.5
--	3-4-3 (7)	30.0'- 31.5'	S-8		30				--	--	--	--
--	9-12-17 (29)	35.0'- 36.5'	S-9		35				--	--	--	--
					40							

REMARKS

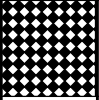
Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Auger/SPT**
 FIELD PERSONNEL **Ben, Scott and Thomas**

BORING NO. **SB-17**
 PAGE **3 of 3**
 TOTAL DEPTH **41.5'**
 DATE START **9/15/21**
 DATE COMPLETED **9/16/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
--	8-16-17 (33)	40.0'- 41.5'	S-10				25.0 to 41.5 feet: SAND (SW), continued. @ 40.0 feet: damp, some silt or clay to silty/clayey below. Bottom of hole = 41.5 feet.		74.8	4.7	20.5	38.3
					45							
					50							
					55							
					60							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Geoprobe**
 FIELD PERSONNEL **Ben, Scott and Thomas**

BORING NO. **SB-18**
 PAGE **1 of 1**
 TOTAL DEPTH **15.0'**
 DATE START **9/16/21**
 DATE COMPLETED **9/16/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
No recovery							0 to 5.0 feet: SANDY GRAVEL (GW) , no recovery. (FILL DEPOSIT)					
20%	--	--			5		5 to 10.0 feet: GRAVELLY SILTY SAND (SM) , brown to dark brown, dry, medium density, plastic and glass. (LANDFILL)	--	--	--	--	--
55%			Enviro. Sample SB-18- 9-10- 0921 @14:35		10		@ 9.0 feet: black.					
					15		10.0 to 15.0 feet: SILT WITH SAND (ML) , gray with brown mottling, firm, damp. (NATIVE)					
					20		Bottom of hole = 15.0 feet. Installed temporary screen between 5.0 to 9.0 feet bgs and collected landfill gas measurements. CH4 - 0.001%, CO2 - 3.9%, O2 - 16%, LEL - 2%. After monitoring, abandoned and backfilled the borehole with hydrated bentonite chips.					

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME **Weyerhaeuser Eatonville Landfill**
 LOCATION **Eatonville, Washington**
 DRILLED BY **Stratus**
 DRILL METHOD **Geoprobe**
 FIELD PERSONNEL **Ben, Scott and Thomas**

BORING NO. **SB-19**
 PAGE **1 of 1**
 TOTAL DEPTH **10.0'**
 DATE START **9/16/21**
 DATE COMPLETED **9/16/21**

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
24%	--	--	--				0 to 7.0 feet: SAND WITH SILT (SW) , brown to gray, fine to medium subrounded gravel, medium density, dry. (TILL)		--	--	--	--
72%	--	--	--		5		7.0 to 7.2 feet: SAND WITH SILT (SW) , black sand, glass and gravel. (LANDFILL) 7.2 to 10.0 feet: SAND (SP) , gray, fine to medium, medium density, slightly damp. (NATIVE)		--	--	--	--
					10		Bottom of hole = 10.0 feet. Installed temporary screen between 5.0 to 9.0 feet bgs and collected landfill gas measurements. CH4 - 0.1%, CO - 54 ppm, H2S 0 ppm (0.0%), LEL - 3%. After monitoring, abandoned and backfilled the borehole with bentonite chips.					
					15							
					20							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



APPENDIX C

Wetland Delineation Report and Land Survey Data

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

Wetland Delineation

Wetland Delineation

for the Eatonville Landfill Property,

Pierce County, Washington

Township	Range	Section	Tax Lots
16N	4E	20 Qtr 11	Portion of 1006
		20 Qtr 14	1007

Prepared for

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March 9, 2022



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I. INTRODUCTION

Pacific Habitat Services, Inc. (PHS) conducted a wetland delineation on January 20, 2022, at the Eatonville Landfill property in Pierce County, Washington (Township 16 North, Range 4 East, Section 20, portion of Tax Lot 1006 and all of 1007). This report presents the results of PHS's delineation of the study area. Figures, including maps depicting the locations of wetlands within the study area are in Appendix A. Data sheets documenting study area conditions are provided in Appendix B. Ground-level photos of the study area are included in Appendix C.

II. RESULTS AND DISCUSSION

A. Landscape Setting and Land Use

The study area is located approximately 2.6 miles southwest of downtown Eatonville and 500 feet northwest of the Mashel River, a tributary of the Nisqually River (Figure 1).

Land use surrounding the study area is primarily Nisqually State Park. Forested and undeveloped, the park property resides near the National Park Highway (Highway 7) leading east toward Mt. Rainier National Park, approximately 23 miles. The property itself is owned by Weyerhaeuser Company, and has historically served as a local dump serving the town of Eatonville and rural nearby areas. Site topography is steeply sloped south at the dump site, and gradually flattens out at the base of slope at the edge of a river terrace adjacent to the Mashel River. Although the river does not enter the study area, wetlands reside in the terrace fed by intermittent seeps in the slope conveying flows southwest. Elevations range from approximately 596 feet to 726 feet according to a topographical survey conducted by Foresight Surveying, Inc.

The study area has two separate plant communities representing wetland and upland conditions. The upland areas reside prominently upslope while the wetland plant community resides at the base of slope on the terrace.

The upland has a dominant overstory consisting of Douglas' fir (*Pseudotsuga menziesii*, FACU), Western hemlock (*Tsuga heterophylla*, FACU), and Western red cedar (*Thuja plicata*, FAC). The understory contains Oregon beaked hazelnut (*Corylus cornuta*, FACU), vine maple (*Acer circinatum*, FAC), salal (*Gaultheria shallon*, FACU), mountain huckleberry (*Vaccinium parvifolium*, FACU), Cascade Oregon grape (*Mahonia nervosa*, FACU), Himalayan blackberry (*Rubus armeniacus*, FAC), trailing blackberry (*Rubus ursinus*, FACU), and cut-leaf blackberry (*Rubus laciniatus*, FACU). Dominant herbaceous species include sword fern (*Polystichum munitum*, FACU), lesser herb-robert (*Geranium robertianum*, FACU), northern bracken fern (*Pteridium aquilinum*, FACU), and piggy-back plant (*Tolmiea menziesii*, FAC).

The wetland plant community is dominated by Red alder (*Alnus rubra*, FAC), salmonberry (*Rubus spectabilis*, FAC), slough sedge (*Carex obnupta*, OBL), and creeping buttercup (*Ranunculus repens*, FAC).

Mapped soils within the study area include Barneston gravelly ashy coarse sandy loam (8-15% slopes), Kapowsin gravelly loam (50-70% slopes), and Aquic xerofluvents, level (hydric) (USDA 2022).

B. Site Alterations

The study area existed for many decades as a leased dump from approximately the 1950s until 1980. Solid waste, vehicles, appliances, tires and other waste was disposed of and over decades accumulated a large mass along the steep slopes adjacent to and within wetlands on site. An Agreed Order (AO) and Public Participation Plan was published through the Department of Ecology (21-09-097) describing the hazardous substances known or suspected at the site, which include metals (iron, lead, and zinc), and the potential for other toxic chemicals that negatively impact water quality standards.

C. Precipitation Data and Analysis

PHS conducted the wetland delineation fieldwork on January 20, 2022. PHS used the Direct Antecedent Rainfall Analysis Method (DAREM) for field dates. Table 1 compares the average monthly WETS table precipitation at the McMillon Reservoir, WA to the observed monthly precipitation at the nearest comprehensive weather station, Graham 2.7 SW. As shown in Table 1, observed precipitation was drier than normal during the three months prior to field work.

Table 1: Comparison of average and observed monthly precipitation prior to the delineation field work

Month	Average Precipitation ¹	30% Chance Will Have		Measured Rainfall ²	Condition Value ³ (1=dry, 2=normal, 3=wet)	Month Weight ⁴	Condition Value x Month Weight	Sum Total ⁵
		Less Than Average ¹	More Than Average ¹					
Year 2022								
January	5.54	3.76	6.62	6.54	Normal (2)	N/A in DAREM	N/A	N/A
Year 2021								
December	5.91	4.31	6.96	4.04	Dry (1)	3	3	9(drier)
November	6.53	4.63	7.74	6.8	Normal (2)	2	4	
October	3.40	2.04	4.13	2.2	Normal (2)	1	2	

¹ NRCS WETS Table for the MCMILLON RESERVOIR, WA Source: <http://agacis.rcc-acis.org/?fips=53053>.

² Measured rainfall is the precipitation recorded at the GRAHAM 2.7 SW. Source: <http://agacis.rcc-acis.org/?fips=53053>

³ Condition Value: compared to nearest WETS normal range

⁴ Month Weight: most recent month = 3, 2nd most recent month = 2, third most recent month = 1

⁵ Sum Total: sum of eighth column: drier (sum 6-9), normal (sum 10-14), wetter (sum 15-18)

Total observed precipitation for the water year (October 2021-December 2021: 13.04 inches), compared to this same period averaged over the past 20 years (15.84 inches) at the McMillon Reservoir, WA is 82% of normal. Precipitation levels recorded on January 20, 2021, totaled 0.33 inches, with 4.23 inches of precipitation recorded over the prior two weeks.

Table 2: Water Year Levels

Water Year	Observed Precipitation (in.)	Average Precipitation (in.)	Percent of Normal
October 2021-December 2021	13.04	15.84	82

Precipitation levels preceding field work were not likely to have affected the boundaries delineated by PHS. One site visit was conducted to verify upland/wetland conditions. Some areas without hydrology were further evaluated for soils and vegetation since precipitation levels were below normal in the month preceding the field investigation. In general, areas without hydrology were also lacking hydric soils or hydrophytic vegetation.

D. Methods

PHS assessed for the presence of jurisdictional wetlands in the study area based on wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the Routine On-site Determination, as described in the *Corps of Engineers Wetland Delineation Manual, Wetlands Research Program Technical Report Y 87 1* ("The 1987 Manual") and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*. The conclusions drawn by PHS were based on the methods outlined in the regional supplement.

PHS staff looked for typical indicators of Ordinary High Water (OHW) based on guidance from *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State*. Although flow from seeps was substantial at the time of the delineation, it appears that the seeps generally provide sheet flows down the slope and into the wetland below. There are occasional areas with scoured roots along the slopes from high-precipitation events, but generally no consistent channel has developed, which may be in part due to the obstacles present from the debris on the slope.

The landfill debris extends to the base of slope and covers a portion of the wetland boundary. The method applied for inferring this boundary included the use of survey topography, LiDAR topography, and comparing the wetland boundary on each side of the debris pile. The inferred portion of wetland boundary is called out on Figure 6.

Soils:

There is a well-defined change between hydric and non-hydric soils along the base of slope, with the exception of seasonally scoured areas upslope where seeps were discharging. Soils typically displayed strong redoximorphic features in either a dark surface or depleted matrix. Some areas of long-term saturation at the base of slope contained a mucky surface and sulfidic odor.

Hydrology:

Soils above the wetland boundary were excavated throughout the study area to verify the presence or lack of primary and/or secondary hydrology indicators. Sample point 1 was excavated to 18-inches to evaluate the potential for groundwater within the slope, since a seep was nearby. Sample point 7 was placed upslope of the head of the main seep to evaluate whether shallow groundwater flow was present. Although precipitation was ample over the prior two weeks, no hydrology indicators were present in the upland; likely due to the steepness of slope.

Vegetation:

Several areas along the wetland boundary contained mosaics of upland vegetation rooted on stumps or shallow tree roots. Although these areas contained upland vegetation, the mosaic sampling procedure method outlined in the regional supplement was not utilized since digging below roots exposed hydric soils and hydrology indicators. These areas were included as wetland despite the presence of upland plants.

E. Description of all Wetlands and Other Waters

PHS identified the potentially jurisdictional limits of wetland within the study area, which is described below.

Wetland A

Wetland A (210,640 square feet/ 4.84 acres) is palustrine emergent-persistent, seasonally flooded/saturated (PEM1E) wetland with a Hydrogeomorphic (HGM) class of Slope. Flowing surface water was present from the head of seep at the time of the delineation. Some shallow surface water was present at the base of slope within the terrace, but mostly infiltrates the soil and maintains persistent saturation. Spoil was not selected as a wetland modifier since the landfill material does not form a soil substrate, but a portion of the northeastern wetland boundary resides beneath the landfill debris.

Dominant vegetation within the wetland includes red alder, Western hemlock, salmonberry, slough sedge, piggy-back plant, and creeping buttercup. Vegetation present met the dominance test for hydrophytic vegetation. Soil indicators present in the wetland include hydrogen sulfide (A4), depleted below dark surface (A11), loamy gleyed matrix (F2), and depleted matrix (F3). Hydrology indicators include surface water (A1), saturation (A3), hydrogen sulfide (C1), drainage patterns (B10), geomorphic position (D2), and FAC-neutral test (D5).

The upland is dominated by Douglas' fir, Western hemlock, Western red cedar, Oregon beaked hazelnut, vine maple, salal, mountain huckleberry, Cascade Oregon grape, Himalayan blackberry, trailing blackberry, cut-leaf blackberry, sword fern, lesser herb-robert, northern bracken fern, and piggy-back plant. No hydric soil or hydrology indicators are present in the upland.

F. Deviation from Local Wetland Inventory or National Wetland Inventory

The study area is not located any designated Local Wetland Inventory (LWI) boundaries. The National Wetland Inventory (NWI) does not display any wetland in the study area, likely due to a lack of ground-truth investigations involved with NWI mapping, as well as dense canopy cover shielding the area from wetness signatures.

G. Mapping Method

PHS used blue flagging tape to delineate the wetland boundaries, and pink flagging tape to mark sample point locations. Locations of flagged boundaries and topographic contours were surveyed by Foresight Surveying, Inc. and have sub-centimeter accuracy. Sample point locations were placed via GPS and surveyed flagging locations and have an accuracy of +/- 3 feet.

H. Additional Information

The Department of Ecology issued an AO for the site under the Toxics Cleanup Program in an effort to remediate for on-site pollutants and waste (Publication 21-09-097).

Although the area is not listed among any Natural Heritage sites, the landfill is surrounded by Nisqually State Park. The nearest Natural Resource Conservation Area (NRCA) is over 20 miles east, at the Ashford NRCA.

The Washington Department of Fish and Wildlife Priority Habitat Mapper displays the following Priority Habitat and Species overlays within the study area and adjacent to and encompassing the nearby Mashel River:

- Habitat feature- “Pierce County Snag Rich Habitat”
- Terrestrial habitat-“Old Growth Habitat in Pierce County”
- Terrestrial habitat-“Pierce county Candidate Open Space Areas”
- Habitat occurrence for Townsend’s big-eared bat-“*Corynorhinus townsendii*”

The US Fish and Wildlife Critical Habitat Mapper has no occurrences listed within the study area, but downstream of the Mashel River, at the confluence with the Nisqually River, is critical habitat for bull trout.

Washington Department of Fish and Wildlife Salmonscape maps the Mashel River as habitat for Fall Chinook, Coho, Winter Chum, Winter Steelhead, Sockeye, Pink salmon (odd year). ESA listing units include Fall & Winter Chum ESUs, Coho ESUs, Pink Odd Year ESUs, and Winter & Summer Steelhead DPSs.

There are no Washington Department of Natural Resources Wetlands of High Conservation Value mapped within the study area.

I. Results and Conclusions

PHS delineated one potentially jurisdictional wetland within the study area (Wetland A). Wetland total is 210,640 square feet/ 4.84 acres. Cowardin and HGM classification is stated above in Section E.

J. Required Disclaimer

This report documents the investigation, best professional judgment and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Washington Department of Ecology in accordance with Chapter 90.48 RCW.

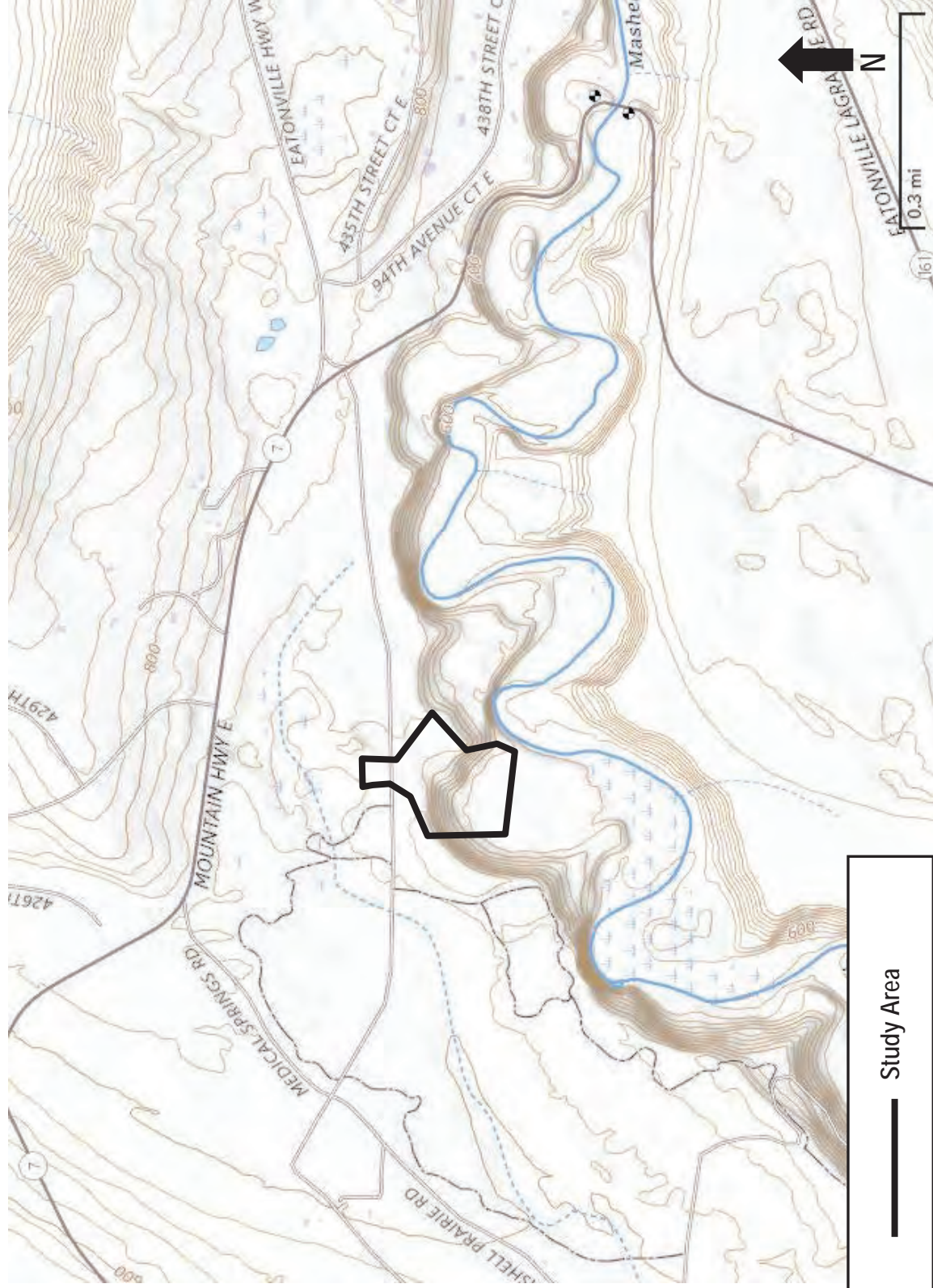
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Appendix A

Figures





Study Area

Project #7424
2/2/2022



Pacific Habitat Services, Inc.
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General Location and Topography
Eatonville Landfill Property - Pierce County, Washington
United States Geological Survey (USGS) Eatonville, Washington 7.5 quadrangle, 2020
(viewer.nationalmap.gov/basic)

FIGURE
1

PublicGIS

Study Area



Date: 2/1/2022 02:01 PM

Project #7424
2/2/2022



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

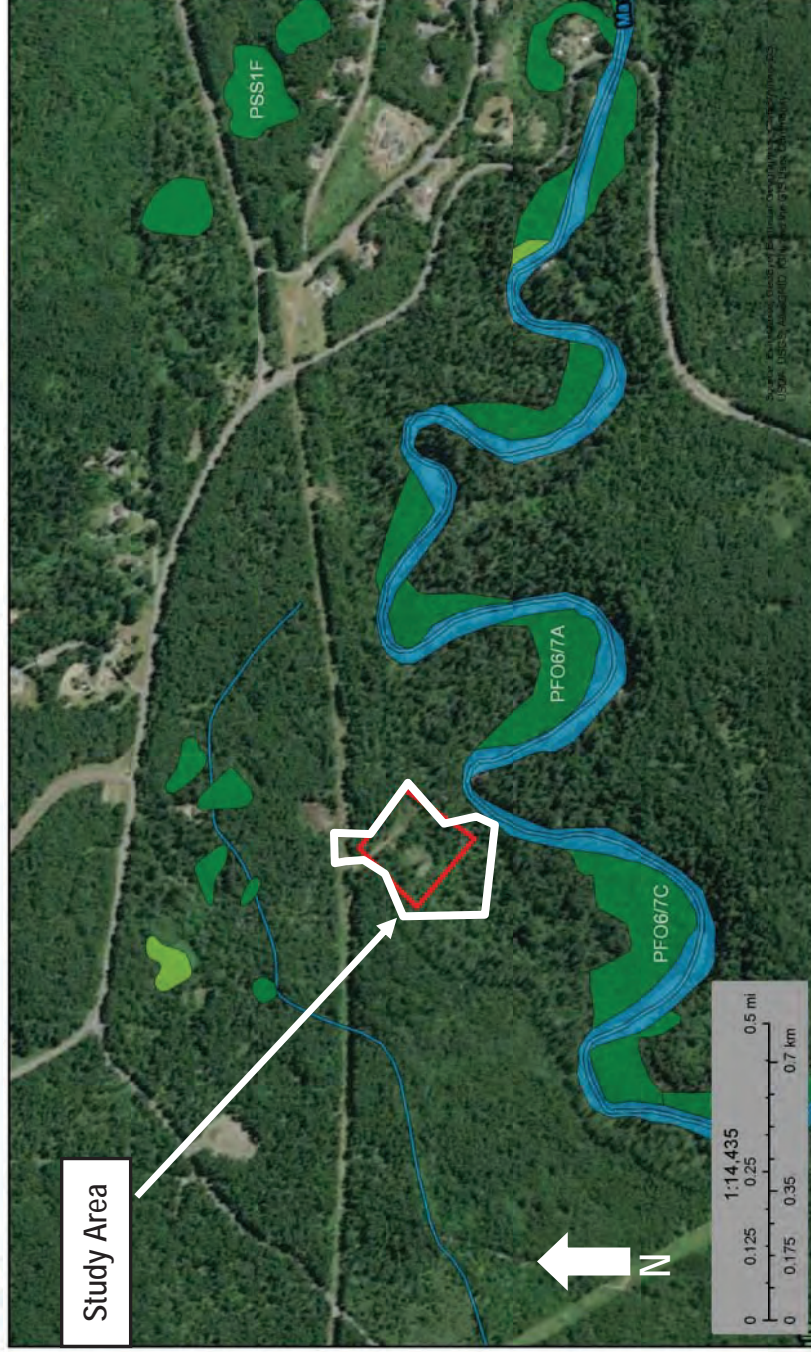
Tax Lot Map
Eatonville Landfill Property - Pierce County, Washington
Pierce County WA Spatial Services

FIGURE
2



U.S. Fish and Wildlife Service
National Wetlands Inventory

Eatonville Landfill



January 18, 2022

Wetlands

- | | | | | | |
|--|--------------------------------|--|-----------------------------------|--|-----------------|
| | Freshwater Emergent Wetland | | Freshwater Forested/Shrub Wetland | | Freshwater Pond |
| | Estuarine and Marine Deepwater | | Estuarine and Marine Wetland | | Lake |
| | | | | | Other |
| | | | | | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Project #7424
2/2/2022



Pacific Habitat Services, Inc.
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Wilsonville, OR 97070

National Wetland Inventory
Eatonville Landfill Property - Pierce County, Washington
United States Fish and Wildlife Service, Online Wetland Mapper V2, 2022

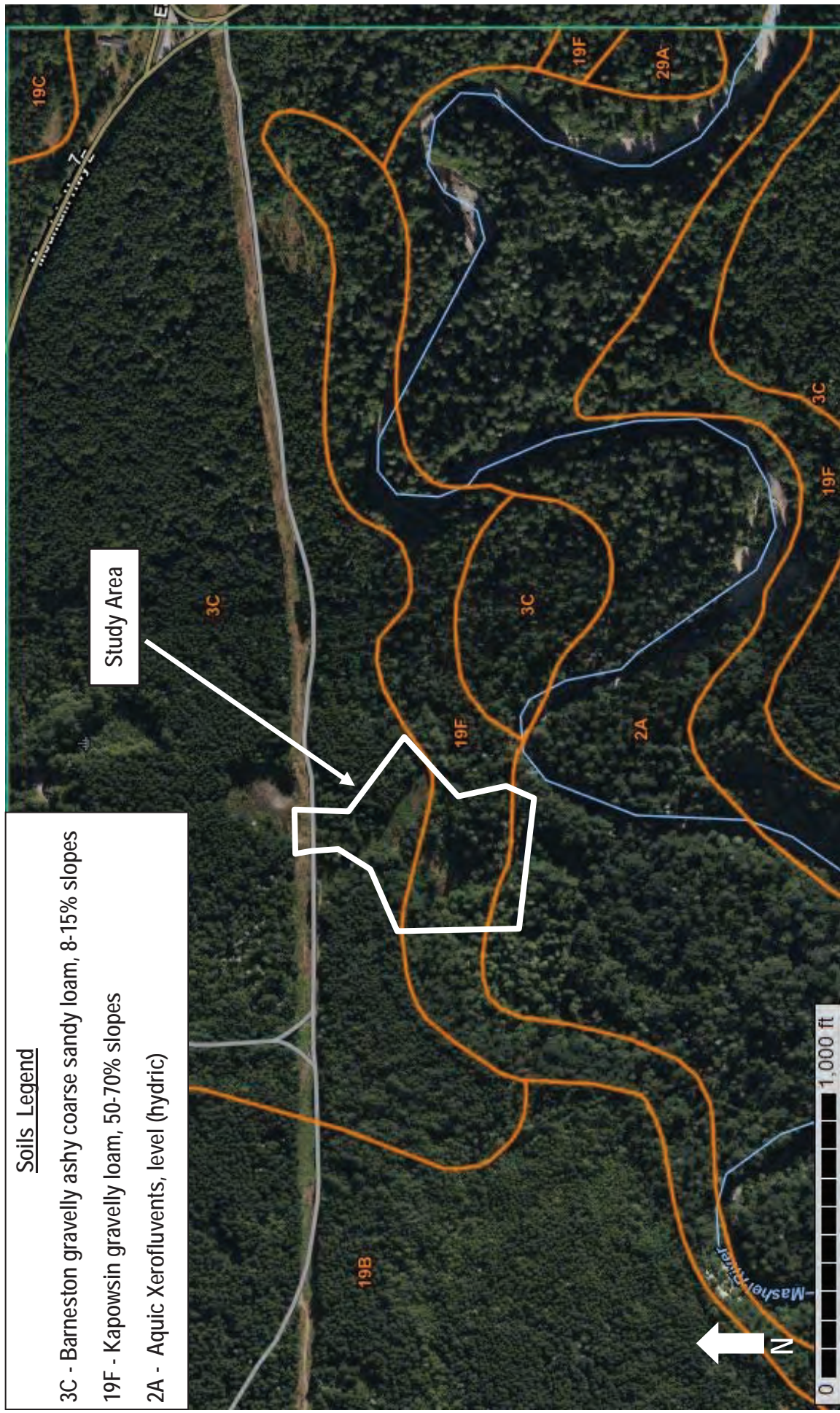
Soils Legend

3C - Barneston gravelly ashy coarse sandy loam, 8-15% slopes

19F - Kapowsin gravelly loam, 50-70% slopes

2A - Aquic Xerofluvents, level (hydric)

Study Area



Project #7424
2/2/2022



Pacific Habitat Services, Inc.
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Soils
Eatonville Landfill Property - Pierce County, Washington
Natural Resources Conservation Services, Web Soil Survey, 2022
(websoilsurvey.sc.egov.usda.gov)

FIGURE

4



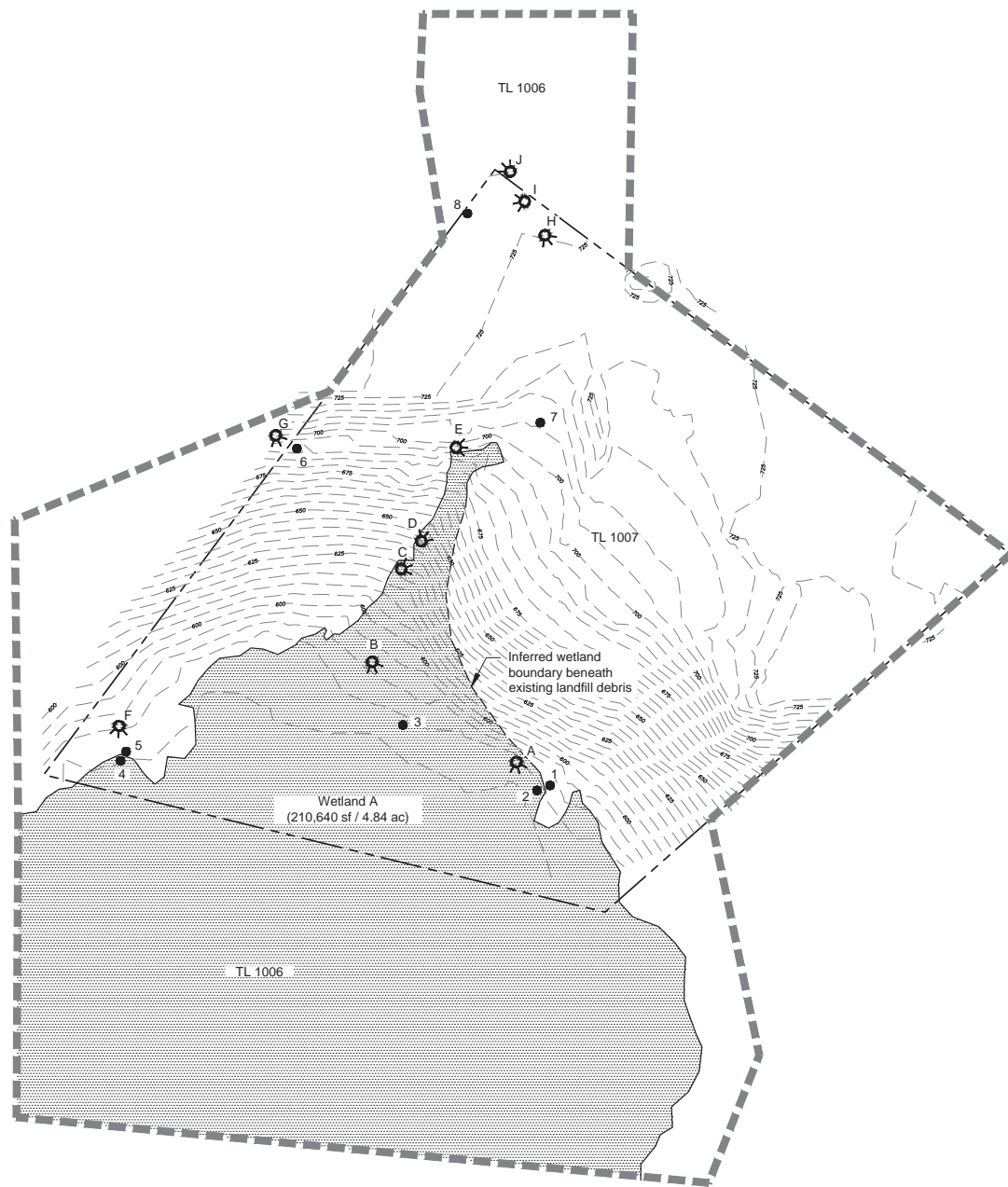
Project #7424
2/2/2022



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

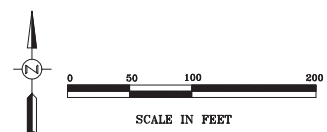
Aerial Photo (2021)
Eatonville Landfill Property - Pierce County, Washington
GoogleEarth, 2022

FIGURE
5



LEGEND

- Study Area Boundary
(505,702 sf / 11.61 ac)
- Wetland
(210,640 sf / 4.84 ac)
- Inferred Wetland Boundary
- Sample Point
- Photo Point
- Tax Lot Line



Survey provided by Foresight Surveying Inc.
Survey accuracy is sub-centimeter and sample point
accuracy is +/- 3 feet

Appendix B

Wetland Determination Data Sheets



WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Eatonville Landfill City/County: Pierce County Sampling Date: 1/20/2022

Applicant/Owner: Weyerhaeuser State: WA Sampling Point: 1

Investigator(s): CM/CR Section, Township, Range: Section 20, 16 North, 4 East

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 25

Subregion (LRR): LRR A Lat: 46.8593 Long: -122.3223 Datum: WGS84

Soil Map Unit Name: Kapowsin gravelly loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)

Are vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Remarks:
Overall conditions derived using the DAREM method indicate that precipitation levels are lower than average, inducing drier conditions on site. During the two weeks prior to the field visit, ample rainfall occurred and primary hydrology indicators are visible.

VEGETATION - Use scientific names of plants.

Tree Stratum	absolute % cover	Dominant Species?	Indicator Status
(plot size: <u>30</u>)			
1 <u>Pseudotsuga menziesii</u>	<u>40</u>	<u>X</u>	<u>FACU</u>
2 <u>Alnus rubra</u>	<u>20</u>	<u>X</u>	<u>FAC</u>
3 <u>Cornus nuttallii</u>	<u>10</u>		<u>FACU</u>
4 <u>Acer macrophyllum</u>	<u>10</u>		<u>FACU</u>
	<u>90</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: <u>15</u>)			
1 <u>Acer circinatum</u>	<u>50</u>	<u>X</u>	<u>FAC</u>
2 <u>Rubus spectabilis</u>	<u>30</u>	<u>X</u>	<u>FAC</u>
3 <u>Alnus rubra</u>	<u>5</u>		<u>FAC</u>
4 <u> </u>			
5 <u> </u>			
	<u>85</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Polystichum munitum</u>	<u>60</u>	<u>X</u>	<u>FACU</u>
2 <u>Geranium robertianum</u>	<u>10</u>		<u>FACU</u>
3 <u>Carex obnupta</u>	<u>5</u>		<u>OBL</u>
4 <u>Tolmiea menziesii</u>	<u>5</u>		<u>FAC</u>
5 <u> </u>			
6 <u> </u>			
7 <u> </u>			
8 <u> </u>			
	<u>80</u>	= Total Cover	
Woody Vine Stratum (plot size: <u> </u>)			
1 <u> </u>			
2 <u> </u>			
	<u>0</u>	= Total Cover	
% Bare Ground in Herb Stratum	<u>20</u>		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species	x 1 =	<u>0</u>
FACW species	x 2 =	<u>0</u>
FAC Species	x 3 =	<u>0</u>
FACU Species	x 4 =	<u>0</u>
UPL Species	x 5 =	<u>0</u>
Column Totals	<u>0</u> (A)	<u>0</u> (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

 1- Rapid Test for Hydrophytic Vegetation

X 2- Dominance Test is >50%

 3-Prevalence Index is ≤ 3.0¹

 4-Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)

 5- Wetland Non-Vascular Plants¹

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:
Trees continued: Tsuga heterophylla (FACU) 10%.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	10YR 2/1	100					Sandy Loam	~30% cobble
11-18	10YR 4/1	100					Sandy Loam	~30% cobble

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)(except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☐ No ☒

Saturation Present? Yes ☐ No ☒

(includes capillary fringe)

Depth (inches):

Depth (inches):

Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Eatonville Landfill City/County: Pierce County Sampling Date: 1/20/2022

Applicant/Owner: Weyerhaeuser State: WA Sampling Point: 2

Investigator(s): CR/CM Section, Township, Range: Section 20, 16 North, 4 East

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): <10

Subregion (LRR): LRR A Lat: 46.8591 Long: -122.3223 Datum: WGS84

Soil Map Unit Name: Kapowsin gravelly loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)

Are vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Remarks:
Overall conditions derived using the DAREM method indicate that precipitation levels are lower than average, inducing drier conditions on site. During the two weeks prior to the field visit, ample rainfall occurred and primary hydrology indicators are visible.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: <u>30</u>)				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>100%</u> (A/B)
1 <u>Alnus rubra</u>	<u>60</u>	<u>X</u>	<u>FAC</u>	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>60</u>	= Total Cover		
Sapling/Shrub Stratum (plot size: <u>15</u>)				Prevalence Index Worksheet: Total % Cover of <u> </u> Multiply by: <u> </u> OBL Species <u> </u> x 1 = <u>0</u> FACW species <u> </u> x 2 = <u>0</u> FAC Species <u> </u> x 3 = <u>0</u> FACU Species <u> </u> x 4 = <u>0</u> UPL Species <u> </u> x 5 = <u>0</u> Column Totals <u>0</u> (A) <u>0</u> (B) Prevalence Index =B/A = <u>#DIV/0!</u>
1 <u>Rubus spectabilis</u>	<u>70</u>	<u>X</u>	<u>FAC</u>	
2 <u>Alnus rubra</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	
3 <u>Acer circinatum</u>	<u>10</u>	<u> </u>	<u>FAC</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>100</u>	= Total Cover		
Herb Stratum (plot size: <u>5</u>)				Hydrophytic Vegetation Indicators: <u>X</u> 1- Rapid Test for Hydrophytic Vegetation <u> </u> 2- Dominance Test is >50% <u> </u> 3-Prevalence Index is ≤ 3.0 ¹ <u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet) <u> </u> 5- Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1 <u>Carex obnupta</u>	<u>70</u>	<u>X</u>	<u>OBL</u>	
2 <u>Ranunculus repens</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	
3 <u>Tolmiea menziesii</u>	<u>10</u>	<u> </u>	<u>FAC</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>100</u>	= Total Cover		
Woody Vine Stratum (plot size: <u> </u>)				
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 2/1	100					Silt Loam	
7-16	10YR 4/1	95	10YR 3/1	5	D	M	Silt Loam	Gravelly rock throughout

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	2 cm Muck (A10)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Other (explain in Remarks)
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Redox Dark Surface (F6)		
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Depleted Dark Surface (F7)		
<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	Redox Depressions (F8)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes☒ No☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input checked="" type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes☒ No☐

Water Table Present? Yes☐ No☒

Saturation Present? Yes☒ No☐

(includes capillary fringe)

Depth (inches): 0.5

Depth (inches): -

Depth (inches): 0-12

Wetland Hydrology Present? Yes☒ No☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Gage height (feet) during site visit was ~2.85 from the "Mashel River near La Grande" USGS station. Nearest river elevation to site is approximately 544 ft, which is approximately 42 feet below sample point 3 on site. This approximation is what leads us to determine that the water table is likely several feet below the wetland and that episaturation is the driving hydrology source.

Remarks:

Surface water and saturation are fed mainly from surface sheet flows coming from upslope seeps, stormwater, and overland flow, and not from a high water table which is likely still several feet below. Water infiltrates the soil at the break in slope and continues south and downslope toward Mashel River, but mostly subsurface. Saturation is still selected due to include episaturation.

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Eatonville Landfill City/County: Pierce County Sampling Date: 1/20/2022

Applicant/Owner: Weyerhaeuser State: WA Sampling Point: 3

Investigator(s): CM/CR Section, Township, Range: Section 20, 16 North, 4 East

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR): LRR A Lat: 46.8593 Long: -122.32310 Datum: WGS84

Soil Map Unit Name: Kapowsin gravelly loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)

Are vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Remarks:
Overall conditions derived using the DAREM method indicate that precipitation levels are lower than average, inducing drier conditions on site. During the two weeks prior to the field visit, ample rainfall occurred and primary hydrology indicators are visible.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u><i>Alnus rubra</i></u>	<u>80</u>	<u>X</u>	<u>FAC</u>	That are OBL, FACW, or FAC: <u>6</u> (A)	
2 <u><i>Tsuga heterophylla</i></u>	<u>10</u>		<u>FACU</u>		
3 <u><i>Thuja plicata</i></u>	<u>10</u>		<u>FAC</u>	Total Number of Dominant	
4 <u><i>Pseudotsuga menziesii</i></u>	<u>10</u>		<u>FACU</u>	Species Across All Strata: <u>6</u> (B)	
	<u>110</u>	= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (plot size: <u>15</u>)				That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
1 <u><i>Rubus spectabilis</i></u>	<u>30</u>	<u>X</u>	<u>FAC</u>	Prevalence Index Worksheet:	
2 <u><i>Alnus rubra</i></u>	<u>10</u>	<u>X</u>	<u>FAC</u>	Total % Cover of	
3 <u><i>Acer circinatum</i></u>	<u>5</u>		<u>FAC</u>	Multiply by:	
4 <u><i>Sambucus racemosa</i></u>	<u>5</u>		<u>FACU</u>	OBL Species <u> </u> x 1 = <u>0</u>	
5 <u> </u>	<u> </u>			FACW species <u> </u> x 2 = <u>0</u>	
	<u>50</u>	= Total Cover		FAC Species <u> </u> x 3 = <u>0</u>	
Herb Stratum (plot size: <u>5</u>)				FACU Species <u> </u> x 4 = <u>0</u>	
1 <u><i>Ranunculus sp</i></u>	<u>20</u>	<u>X</u>	<u>(FAC)</u>	UPL Species <u> </u> x 5 = <u>0</u>	
2 <u><i>Carex obnupta</i></u>	<u>10</u>	<u>X</u>	<u>OBL</u>	Column Totals <u>0</u> (A) <u>0</u> (B)	
3 <u><i>Athyrium americanum</i></u>	<u>10</u>	<u>X</u>	<u>FAC</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
4 <u> </u>	<u> </u>			Hydrophytic Vegetation Indicators:	
5 <u> </u>	<u> </u>			1- Rapid Test for Hydrophytic Vegetation	
6 <u> </u>	<u> </u>			<u>X</u> 2- Dominance Test is >50%	
7 <u> </u>	<u> </u>			3-Prevalence Index is ≤ 3.0 ¹	
8 <u> </u>	<u> </u>			4-Morphological Adaptations ¹ (provide supporting	
	<u>40</u>	= Total Cover		data in Remarks or on a separate sheet)	
Woody Vine Stratum (plot size: <u> </u>)				5- Wetland Non-Vascular Plants ¹	
1 <u> </u>	<u> </u>			Problematic Hydrophytic Vegetation ¹ (Explain)	
2 <u> </u>	<u> </u>			¹ Indicators of hydric soil and wetland hydrology must be present, unless	
	<u>0</u>	= Total Cover		disturbed or problematic.	
% Bare Ground in Herb Stratum <u>60</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
Remarks:					

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Silt Loam	Muck
3-6	10YR 3/2	100					Loam	
6-12	10YR 3/2	95	10YR 4/4	5	C	M	Loam	Coarse

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	2 cm Muck (A10)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Other (explain in Remarks)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	Thick Dark Surface (A12)	<input checked="" type="checkbox"/>	Redox Dark Surface (F6)		
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Depleted Dark Surface (F7)		
<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	Redox Depressions (F8)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes☒ No☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/>	High Water Table (A2)	<input checked="" type="checkbox"/>	Drainage Patterns (B10)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Dry-Season Water Table (C2)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery
<input type="checkbox"/>	Sediment Deposits (B2)	<input checked="" type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Shallow Aquitard (D3)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input checked="" type="checkbox"/>	Fac-Neutral Test (D5)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/>	Surface Soil Cracks (B6)	<input type="checkbox"/>	Frost-Heave Hummocks (D7)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)		
<input type="checkbox"/>	Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)		
<input type="checkbox"/>	Salt Crust (B11)		
<input type="checkbox"/>	Aquatic Invertebrates (B13)		
<input checked="" type="checkbox"/>	Hydrogen Sulfide Odor (C1)		
<input type="checkbox"/>	Oxidized Rhizospheres along Living Roots (C3)		
<input type="checkbox"/>	Presence of Reduced Iron (C4)		
<input type="checkbox"/>	Recent Iron Reduction in Plowed Soils (C6)		
<input type="checkbox"/>	Stunted or Stressed Plants (D1) (LRR A)		
<input type="checkbox"/>	Other (Explain in Remarks)		

Field Observations:

Surface Water Present? Yes☐ No☒

Water Table Present? Yes☐ No☒

Saturation Present? Yes☒ No☐

(includes capillary fringe)

Depth (inches):

Depth (inches):

Depth (inches):

Wetland Hydrology Present? Yes☒ No☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Gage height (feet) during site visit was ~2.85 from the "Mashel River near La Grande" USGS station. Nearest river elevation to site is approximately 544 ft, which is approximately 42 feet below sample point 3 on site. This approximation is what leads us to determine that the water table is likely several feet below the wetland and that episaturation is the driving hydrology source.

Remarks:

Surface water and saturation are fed mainly from surface sheet flows coming from upslope seeps, stormwater, and overland flow, and not from a high water table which is likely still several feet below. Water infiltrates the soil at the break in slope and continues south and downslope toward Mashel River, but mostly subsurface. Saturation is still selected due to include episaturation.

PHS # 7424

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Eatonville Landfill City/County: Pierce County Sampling Date: 1/20/2022

Applicant/Owner: Weyerhaeuser State: WA Sampling Point: 4

Investigator(s): CM/CR Section, Township, Range: Section 20, 16 North, 4 East

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR): LRR A Lat: 46.8597 Long: -122.32401 Datum: WGS84

Soil Map Unit Name: Kapowsin gravelly loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)

Are vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Remarks:
Overall conditions derived using the DAREM method indicate that precipitation levels are lower than average, inducing drier conditions on site. During the two weeks prior to the field visit, ample rainfall occurred and primary hydrology indicators are visible.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: <u>30</u>)				
1 <u><i>Alnus rubra</i></u>	<u>40</u>	<u>X</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>100%</u> (A/B)
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>40</u>	= Total Cover		
Sapling/Shrub Stratum (plot size: <u>15</u>)				
1 <u><i>Rubus spectabilis</i></u>	<u>30</u>	<u>X</u>	<u>FAC</u>	Prevalence Index Worksheet: Total % Cover of <u> </u> Multiply by: <u> </u> <div style="display: flex; justify-content: space-between;"> <div> OBL Species <u> </u> x 1 = <u>0</u> FACW species <u> </u> x 2 = <u>0</u> FAC Species <u> </u> x 3 = <u>0</u> FACU Species <u> </u> x 4 = <u>0</u> UPL Species <u> </u> x 5 = <u>0</u> Column Totals <u>0</u> (A) <u>0</u> (B) </div> <div> Prevalence Index =B/A = <u>#DIV/0!</u> </div> </div>
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Herb Stratum (plot size: <u>5</u>)				
1 <u><i>Tolmiea menziesii</i></u>	<u>40</u>	<u>X</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <div style="margin-left: 20px;"> 1- Rapid Test for Hydrophytic Vegetation <u>X</u> 2- Dominance Test is >50% <u> </u> 3-Prevalence Index is ≤ 3.0¹ <u> </u> 4-Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet) <u> </u> 5- Wetland Non-Vascular Plants¹ <u> </u> Problematic Hydrophytic Vegetation¹ (Explain) <u> </u> </div>
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>40</u>	= Total Cover		
Woody Vine Stratum (plot size: <u> </u>)				
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2 <u> </u>	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>60</u>				

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/1	100					Silt Loam	Mucky
2-4	10YR 3/2	100					Silt Loam	10% cobble
4-10	10YR 3/2	35	10YR 4/6	3	C	M	Loam	Coarse
4-10	10YR 4/2	60	10YR 4/6	2	C	M	Loam	Coarse
10-12	Gley1 4/1	100					Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)		<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)		
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)		<input checked="" type="checkbox"/> Depleted Matrix (F3)			
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Redox Dark Surface (F6)			
<input type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Depleted Dark Surface (F7)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Redox Depressions (F8)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes☒ No☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes☐ No☒

Water Table Present? Yes☐ No☒

Saturation Present? Yes☒ No☐

(includes capillary fringe)

Depth (inches):

Depth (inches):

Depth (inches):

Wetland Hydrology Present? Yes☒ No☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Gage height (feet) during site visit was ~2.85 from the "Mashel River near La Grande" USGS station. Nearest river elevation to site is approximately 544 ft, which is approximately 42 feet below sample point 3 on site. This approximation is what leads us to determine that the water table is likely several feet below the wetland and that episaturation is the driving hydrology source.

Remarks:

Surface water and saturation are fed mainly from surface sheet flows coming from upslope seeps, stormwater, and overland flow, and not from a high water table which is likely still several feet below. Water infiltrates the soil at the break in slope and continues south and downslope toward Mashel River, but mostly subsurface. Saturation is still selected due to include episaturation.

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Eatonville Landfill City/County: Pierce County Sampling Date: 1/20/2022

Applicant/Owner: Weyerhaeuser State: WA Sampling Point: 5

Investigator(s): CR/CM Section, Township, Range: Section 20, 16 North, 4 East

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): <20

Subregion (LRR): LRR A Lat: 46.8598 Long: -122.32405 Datum: WGS84

Soil Map Unit Name: Kapowsin gravelly loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)

Are vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Remarks:
Overall conditions derived using the DAREM method indicate that precipitation levels are lower than average, inducing drier conditions on site. During the two weeks prior to the field visit, ample rainfall occurred and primary hydrology indicators are visible.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: <u>30</u>)				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>0%</u> (A/B)
1 <u><i>Tsuga heterophylla</i></u>	<u>85</u>	<u>X</u>	<u>FACU</u>	
2 <u><i>Thuja plicata</i></u>	<u>10</u>		<u>FAC</u>	
3 <u><i>Pseudotsuga menziesii</i></u>	<u>5</u>		<u>FACU</u>	
4 <u> </u>	<u> </u>		<u> </u>	
	<u>100</u>	= Total Cover		
Sapling/Shrub Stratum (plot size: <u>15</u>)				Prevalence Index Worksheet: Total % Cover of <u> </u> Multiply by: <u> </u> OBL Species <u> </u> x 1 = <u>0</u> FACW species <u> </u> x 2 = <u>0</u> FAC Species <u> </u> x 3 = <u>0</u> FACU Species <u> </u> x 4 = <u>0</u> UPL Species <u> </u> x 5 = <u>0</u> Column Totals <u>0</u> (A) <u>0</u> (B) Prevalence Index =B/A = <u>#DIV/0!</u>
1 <u><i>Tsuga heterophylla</i></u>	<u>5</u>		<u>FACU</u>	
2 <u><i>Rubus ursinus</i></u>	<u>70</u>	<u>X</u>	<u>FACU</u>	
3 <u> </u>	<u> </u>		<u> </u>	
4 <u> </u>	<u> </u>		<u> </u>	
5 <u> </u>	<u> </u>		<u> </u>	
	<u>75</u>	= Total Cover		
Herb Stratum (plot size: <u>5</u>)				Hydrophytic Vegetation Indicators: 1- Rapid Test for Hydrophytic Vegetation 2- Dominance Test is >50% 3-Prevalence Index is ≤ 3.0 ¹ 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet) 5- Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
1 <u><i>Polystichum munitum</i></u>	<u>70</u>	<u>X</u>	<u>FACU</u>	
2 <u> </u>	<u> </u>		<u> </u>	
3 <u> </u>	<u> </u>		<u> </u>	
4 <u> </u>	<u> </u>		<u> </u>	
5 <u> </u>	<u> </u>		<u> </u>	
6 <u> </u>	<u> </u>		<u> </u>	
7 <u> </u>	<u> </u>		<u> </u>	
8 <u> </u>	<u> </u>		<u> </u>	
	<u>70</u>	= Total Cover		
Woody Vine Stratum (plot size: <u> </u>)				
1 <u> </u>	<u> </u>		<u> </u>	
2 <u> </u>	<u> </u>		<u> </u>	
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>30</u>				
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	7.5YR 2.5/2	100					Sandy Loam	some intermixed duff
3-4	10YR 2/2	100					Sandy Loam	
4-16	10YR 4/2	100					Sand	Rock/gravel throughout

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)				Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

Field Observations:

Surface Water Present? Yes No

X

Water Table Present? Yes No

X

Saturation Present? Yes No

X

(includes capillary fringe)

Depth (inches):

Depth (inches):

>16

Depth (inches):

>16

Wetland Hydrology Present? Yes No

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Eatonville Landfill City/County: Pierce County Sampling Date: 1/20/2022

Applicant/Owner: Weyerhaeuser State: WA Sampling Point: 6

Investigator(s): CM/CR Section, Township, Range: Section 20, 16 North, 4 East

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): >25

Subregion (LRR): LRR A Lat: 46.8599 Long: -122.32388 Datum: WGS84

Soil Map Unit Name: Kapowsin gravelly loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)

Are vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Remarks:
Overall conditions derived using the DAREM method indicate that precipitation levels are lower than average, inducing drier conditions on site. During the two weeks prior to the field visit, ample rainfall occurred and primary hydrology indicators are visible.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: <u>30</u>)				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>0%</u> (A/B)
1 <u><i>Tsuga heterophylla</i></u>	<u>60</u>	<u>X</u>	<u>FACU</u>	
2 <u><i>Pseudotsuga menziesii</i></u>	<u>30</u>	<u>X</u>	<u>FACU</u>	
3 <u><i>Thuja plicata</i></u>	<u>10</u>		<u>FAC</u>	
4 <u> </u>				
	<u>100</u>	= Total Cover		
Sapling/Shrub Stratum (plot size: <u>15</u>)				Prevalence Index Worksheet: Total % Cover of <u> </u> Multiply by: <u> </u> OBL Species <u> </u> x 1 = <u>0</u> FACW species <u> </u> x 2 = <u>0</u> FAC Species <u> </u> x 3 = <u>0</u> FACU Species <u> </u> x 4 = <u>0</u> UPL Species <u> </u> x 5 = <u>0</u> Column Totals <u>0</u> (A) <u>0</u> (B) Prevalence Index =B/A = <u>#DIV/0!</u>
1 <u><i>Gaultheria shallon</i></u>	<u>60</u>	<u>X</u>	<u>FACU</u>	
2 <u><i>Vaccinium parvifolium</i></u>	<u>20</u>	<u>X</u>	<u>FACU</u>	
3 <u><i>Mahonia nervosa</i></u>	<u>20</u>	<u>X</u>	<u>FACU</u>	
4 <u> </u>				
5 <u> </u>				
	<u>100</u>	= Total Cover		
Herb Stratum (plot size: <u>5</u>)				Hydrophytic Vegetation Indicators: <u> </u> 1- Rapid Test for Hydrophytic Vegetation <u> </u> 2- Dominance Test is >50% <u> </u> 3-Prevalence Index is ≤ 3.0 ¹ <u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet) <u> </u> 5- Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
1 <u><i>Polystichum munitum</i></u>	<u>60</u>	<u>X</u>	<u>FACU</u>	
2 <u> </u>				
3 <u> </u>				
4 <u> </u>				
5 <u> </u>				
6 <u> </u>				
7 <u> </u>				
8 <u> </u>				
	<u>60</u>	= Total Cover		
Woody Vine Stratum (plot size: <u> </u>)				
1 <u> </u>				
2 <u> </u>				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>40</u>				
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/1	100					Loam	Very organic with ~20% cobble
4-14	10YR 3/2	100					Sandy Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)(except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☐ No ☒

Saturation Present? Yes ☐ No ☒

(includes capillary fringe)

Depth (inches):

Depth (inches):

Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Eatonville Landfill City/County: Pierce County Sampling Date: 1/20/2022

Applicant/Owner: Weyerhaeuser State: WA Sampling Point: 7

Investigator(s): CM/CR Section, Township, Range: Section 20, 16 North, 4 East

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 25

Subregion (LRR): LRR A Lat: 46.8601 Long: -122.32260 Datum: WGS84

Soil Map Unit Name: Barneston gravelly ashy coarse sandy loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)

Are vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Remarks:

Overall conditions derived using the DAREM method indicate that precipitation levels are lower than average, inducing drier conditions on site. During the two weeks prior to the field visit, ample rainfall occurred and primary hydrology indicators are visible.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: <u>30</u>)				Dominance Test worksheet:
1 <u><i>Pseudotsuga menziesii</i></u>	<u>50</u>	<u>X</u>	<u>FACU</u>	Number of Dominant Species
2 <u><i>Alnus rubra</i></u>	<u>10</u>		<u>FAC</u>	That are OBL, FACW, or FAC: <u>1</u> (A)
3 <u> </u>				Total Number of Dominant
4 <u> </u>				Species Across All Strata: <u>4</u> (B)
	<u>60</u>	= Total Cover		Percent of Dominant Species
Sapling/Shrub Stratum (plot size: <u>15</u>)				That are OBL, FACW, or FAC: <u>25%</u> (A/B)
1 <u><i>Rubus armeniacus</i></u>	<u>20</u>	<u>X</u>	<u>FAC</u>	Prevalence Index Worksheet:
2 <u> </u>				Total % Cover of
3 <u> </u>				Multiply by:
4 <u> </u>				OBL Species <u> </u> x 1 = <u>0</u>
5 <u> </u>				FACW species <u> </u> x 2 = <u>0</u>
	<u>20</u>	= Total Cover		FAC Species <u> </u> x 3 = <u>0</u>
Herb Stratum (plot size: <u>5</u>)				FACU Species <u> </u> x 4 = <u>0</u>
1 <u><i>Polystichum munitum</i></u>	<u>20</u>	<u>X</u>	<u>FACU</u>	UPL Species <u> </u> x 5 = <u>0</u>
2 <u><i>Vinca minor</i></u>	<u>20</u>	<u>X</u>	<u>(UPL)</u>	Column Totals <u>0</u> (A) <u>0</u> (B)
3 <u> </u>				Prevalence Index =B/A = <u>#DIV/0!</u>
4 <u> </u>				Hydrophytic Vegetation Indicators:
5 <u> </u>				<u> </u> 1- Rapid Test for Hydrophytic Vegetation
6 <u> </u>				<u> </u> 2- Dominance Test is >50%
7 <u> </u>				<u> </u> 3-Prevalence Index is ≤ 3.0 ¹
8 <u> </u>				<u> </u> 4-Morphological Adaptations ¹ (provide supporting
	<u>40</u>	= Total Cover		<u> </u> data in Remarks or on a separate sheet)
Woody Vine Stratum (plot size: <u> </u>)				<u> </u> 5- Wetland Non-Vascular Plants ¹
1 <u> </u>				<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
2 <u> </u>				¹ Indicators of hydric soil and wetland hydrology must be present, unless
	<u>0</u>	= Total Cover		disturbed or problematic.
% Bare Ground in Herb Stratum <u>60</u>				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 2/1	100					Sandy Loam	30% cobble
10-14	10YR 2/2	100					Sandy Loam	30% cobble

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)				Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/>	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/>	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/>	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/>	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/>	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/>	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/>	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	<input type="checkbox"/> Other (explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/>	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/>		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/>	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/>		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/>	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/>		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/>		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☐ No ☒ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Eatonville Landfill City/County: Pierce County Sampling Date: 1/20/2022

Applicant/Owner: Weyerhaeuser State: WA Sampling Point: 8

Investigator(s): CM/CR Section, Township, Range: Section 20, 16 North, 4 East

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): <5

Subregion (LRR): LRR A Lat: 46.8605 Long: -122.32263 Datum: WGS84

Soil Map Unit Name: Barneston gravelly ashy coarse sandy loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)

Are vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Remarks:
Overall conditions derived using the DAREM method indicate that precipitation levels are lower than average, inducing drier conditions on site. During the two weeks prior to the field visit, ample rainfall occurred and primary hydrology indicators are visible.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: <u>30</u>)			
1 <u>Corylus cornuta</u>	<u>20</u>	<u>X</u>	<u>FACU</u>
2 <u>Pseudotsuga menziesii</u>	<u>10</u>	<u>X</u>	<u>FACU</u>
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>30</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: <u>15</u>)			
1 <u>Corylus cornuta</u>	<u>40</u>	<u>X</u>	<u>FACU</u>
2 <u>Rubus armeniacus</u>	<u>20</u>	<u> </u>	<u>FAC</u>
3 <u>Rubus laciniatus</u>	<u>20</u>	<u> </u>	<u>FACU</u>
4 <u>Rubus ursinus</u>	<u>70</u>	<u>X</u>	<u>FACU</u>
5 <u>Cirsium scariosum</u>	<u>5</u>	<u> </u>	<u>FAC</u>
	<u>160</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Pteridium aquilinum</u>	<u>70</u>	<u>X</u>	<u>FACU</u>
2 <u>Nemophila parviflora</u>	<u>10</u>	<u> </u>	<u>(UPL)</u>
3 <u>Geum macrophyllum</u>	<u>10</u>	<u> </u>	<u>FAC</u>
4 <u>Unidentified grass</u>	<u>10</u>	<u> </u>	<u>(UPL)</u>
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>100</u>	= Total Cover	
Woody Vine Stratum (plot size: <u> </u>)			
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>0</u>	= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>			

Dominance Test worksheet:

Number of Dominant Species
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species
That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species <u> </u>	x 1 =	<u>0</u>
FACW species <u> </u>	x 2 =	<u>0</u>
FAC Species <u> </u>	x 3 =	<u>0</u>
FACU Species <u> </u>	x 4 =	<u>0</u>
UPL Species <u> </u>	x 5 =	<u>0</u>
Column Totals <u>0</u> (A)		<u>0</u> (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- 1- Rapid Test for Hydrophytic Vegetation
- 2- Dominance Test is >50%
- 3-Prevalence Index is ≤ 3.0¹
- 4-Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)
- 5- Wetland Non-Vascular Plants¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No X

Remarks:
Shrubs continued: Holodiscus discolor (FACU) 5%.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 2/1	100					Loam	10% cobble
5-14	10YR 3/6	100					Sandy Loam	5% gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)(except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☐ No ☒

Saturation Present? Yes ☐ No ☒

(includes capillary fringe)

Depth (inches):

Depth (inches):

Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C

Study Area Photos (ground level)





Photo A:

Looking southeast at sample points 1 and 2 and Wetland A.

Photo date January 20, 2022

Photo B:

Looking southeast at sample point 3 within Wetland A.

Photo date January 20, 2022



Project #7424

2/10/2022



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Eatonville Landfill Property - Pierce County, Washington



Photo C:

Looking northeast at the wetland seep and landfill debris pile.

Photo date January 20, 2022

Photo D:

Looking northeast at the debris within the Wetland A seep.

Photo date January 20, 2022



Project #7424

2/10/2022



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Eatonville Landfill Property - Pierce County, Washington



Photo E:

Looking east at the head of seep in Wetland A.

Photo date January 20, 2022

Photo F:

Looking south at sample points 4 and 5 and Wetland A.

Photo date January 20, 2022



Project #7424

2/10/2022



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Eatonville Landfill Property - Pierce County, Washington



Photo G:

Looking southeast at sample point along an old logging grade within an upland slope.

Photo date January 20, 2022

Photo H:

Looking southeast at the dirt road entrance to the landfill.

Photo date January 20, 2022



Project #7424

2/10/2022



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Eatonville Landfill Property - Pierce County, Washington



Photo I:

Looking west at sample point in a general upland condition near the dirt road entrance to the landfill.

Photo date January 20, 2022

Photo J:

Looking northwest at waste containment bins within an upland area near the dirt road entrance to the landfill.

Photo date January 20, 2022



Project #7424

2/10/2022



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Eatonville Landfill Property - Pierce County, Washington

Land Survey

APPENDIX D

Terrestrial Ecological Evaluation

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

WEIGHT OF EVIDENCE BASED TERRESTRIAL ECOLOGICAL EVALUATION

**Former Eatonville Landfill
State of Washington Department of Ecology
Facility Site ID No. 85933/Cleanup Site ID No. 15271**

Prepared for:
GSI Water Solutions, Inc.

June 2023




Former Eatonville Landfill
State of Washington Department of Ecology
Facility Site ID No. 85933/Cleanup Site ID No. 15271

Prepared for:

GSI Water Solutions, Inc.
650 NE Holladay Street, Suite 900
Portland, OR 97232

This document has been prepared by SLR International Corporation (SLR). The material and data in this report were prepared under the supervision and direction of the undersigned.



Jeffrey Peterson, PhD
Principal Scientist

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FIGURE

Figure 1 Terrestrial Ecological Evaluation Locations

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ATTACHMENTS

- Attachment A Photographs of Ground and Canopy Plant Cover
- Attachment B Plant Community Statistics – ProUCL Output
- Attachment C Regression of Plant and Invertebrate Metrics on Soil Chemistry – ProUCL Output
- Attachment D Photographs of Soil Invertebrates
- Attachment E Soil Invertebrate Statistics – ProUCL Output
- Attachment F Photographs of Depth-Specific Plant Root Density
- Attachment G Exposure Point Concentrations – ProUCL Output

ACRONYMS

ANOVA	analysis of variance
bgs	below ground surface
CEC	cation exchange capacity
cmol _c /kg	moles of electric charge per kilogram of soil
COC	contaminant of concern
CSM	conceptual site model
Ecology	Washington State Department of Ecology
Eco-SSL	Ecological Soil Screening Level
ED10	10 th percentile effective dose
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
GOF	goodness-of-fit
GSI	GSI Water Solutions, Inc.
HQ	hazard quotient
LOAEL	Lowest-Observed-Adverse-Effect-Level
LOEC	low observable effect concentration
mg/kg	milligrams per kilogram
NOAEL	No-Observed-Adverse-Effect-Level
NOEC	no observable effect concentration
ORNL	Oak Ridge National Laboratory
RI/FS	Remedial Investigation/Feasibility Study
SL	screening level
SLR	SLR International Corporation
TEE	terrestrial ecological evaluation
TRV	Toxicity Reference Value
UCL	upper confidence limit
WAC	Washington Administrative Code
WOE	Weight of Evidence

1. INTRODUCTION

On behalf of GSI Water Solutions, Inc. (GSI), SLR International Corporation (SLR) has prepared this site-specific terrestrial ecological evaluation (TEE) as part of the Remedial Investigation/Feasibility Study (RI/FS) for the Former Eatonville Landfill (Site) located near Eatonville, Washington. This TEE evaluates whether contaminants released to soil in the wetland area of the Site may pose unacceptable risks to terrestrial ecological receptors. A Weight of Evidence (WOE) ecological risk evaluation approach was performed consistent with Washington Administrative Code (WAC) 173-340-7493 and the WOE Work Plan (GSI, 2022) that was approved by the Washington State Department of Ecology (Ecology).

The Site is a 6.3-acre rectangular parcel of land owned by the Weyerhaeuser Company (Weyerhaeuser) (Figure 1). The former landfill covers a steep slope, and elevated concentrations of metals have been observed in soil on a “bench” at the toe of the landfill known as the wetland area. Seeps at or near the base of the landfill keep soil in the wetland area moist, and wetland habitat is present near where seeps are expressed. In general, the wetland area does not support aquatic organisms (e.g., fish and benthic invertebrates) because many surface water features created by seeps are ephemeral, and the wetland is not directly connected to permanent water features such as the nearby Mashel River. Due to a lack of standing water, the substrate on the wetland area appears to function as soil and not sediment.

Concentrations of metals (i.e., copper, lead, and zinc being the primary focus) in several soil samples from the wetland area are above relevant ecological screening levels (SLs), namely Ecological Indicator Soil Concentrations (milligrams/kilogram [mg/kg]) for Protection of Terrestrial Plants and Animals (WAC Table 749-3). However, the plant community in the wetland area appears natural, mature, and diverse. Removal of soil with elevated concentrations of contaminants (e.g., metals) has the potential to cause significant degradation of this well-established functional wetland habitat, would be challenging to implement and permit, and could result in long-term impacts to the mature forest system. The bioavailability of metals in soil is an important determinant of ecological toxicity (Langmuir et al., 2004). Many ecological SLs are based on toxicity studies using fresh metal salts with high bioavailability. These SLs can overpredict the toxicity of older metals released to soil in the field that may have weathered and are less bioavailable than fresh salts (Oorts et al., 2021).

A site-specific WOE evaluation was performed to better estimate if landfill-related contaminants (mainly metals) in wetland area soils may pose unacceptable risks to ecological receptors. Consistent with WAC 173-340-7493, the different lines of evidence evaluated included the following:

- Literature search to evaluate toxicity data and screening values used in various ecological risk assessments
- Measurements of plant community characteristics and comparisons of plant communities in areas with high metals concentrations to those in areas with relatively low metals concentrations
- Observations of plant toxicity

- Measurements of the soil invertebrate abundance and comparisons of soil invertebrate density in areas with high and relatively low metals concentrations
- Depth-weighted adjustments of soil exposure concentrations based on observations of relative exposure of ecological receptors to soil at different depths
- Wildlife behavior

The lines of evidence with the greatest potential to accurately predict adverse ecological effects associated with exposure to contaminants are those based on actual site-specific measurements. In addition, evaluations that involve statistical comparisons of measured population characteristics between contaminated and uncontaminated areas are considered better predictors of ecological effects than more qualitative or anecdotal observations. Evaluations based on comparisons of chemical concentrations to conservative, literature-based SLs that are not site-specific are typically given less weight than field study results. The approximate relative ranking of the various lines of evidence are as follows:

Plant community characteristics ≈ Invertebrate abundance > Plant health observations ≈ Wildlife behavior observations > Depth-weighted exposure concentrations > Comparisons to screening levels.

2. PROBLEM FORMULATION

Problem formulation includes describing the conceptual site model (CSM) and the important terrestrial ecological receptors that are reasonably likely to contact landfill-related chemicals in soil. Other elements of problem formulation include identifying the contaminants of concern (COCs) in soil that warrant further evaluation in the TEE, and outlining the methods by which potential risks to terrestrial ecological receptors will be evaluated. Elements of the terrestrial ecological risk assessment problem formulation are briefly discussed below.

2.1 CONCEPTUAL SITE MODEL

The CSM describes potential chemical sources, release mechanisms, environmental transport processes, exposure routes, and receptors. According to U.S. Environmental Protection Agency (EPA) risk assessment guidance (EPA, 1989), a complete exposure pathway consists of four necessary elements: (1) a source and mechanism of chemical release to the environment, (2) an environmental retention or transport medium for a released chemical, (3) a point of potential contact with the impacted medium (referred to as the exposure point), and (4) an exposure route (e.g., incidental soil ingestion) at the exposure point. If any of these four components are not present, then a potential exposure pathway is considered incomplete and is not evaluated further. If all four components are present, a pathway is considered potentially complete. The ecological CSM is described in Section 5 of the RI/FS and is briefly summarized below.

It appears that some metals in waste material placed in the landfill have partitioned into water percolating through waste material and/or into groundwater. Waterborne metals then appear to have migrated via surface water and/or groundwater to the wetland area. Some landfill-related metals in water appear to have partitioned to wetland area soils. Terrestrial ecological receptors such as vascular plants, soil-dwelling invertebrates, and wildlife (e.g., birds and mammals) may have contact with landfill-related metals in soil. Plants may have root contact with metals in soil pore water and invertebrates may have dermal contact with metals in soil. Invertebrates and wildlife may also incidentally ingest metals in soil. Inhalation of airborne soil particles and dermal contact with soil are considered potentially complete, but insignificant exposure pathways for wildlife.

The wetland area beneath the toe of the landfill supports a relatively mature and healthy forest community. Many of the large Douglas fir (*Pseudotsuga menziesii*) and other tree species have been established for decades. Terrestrial plants present in the wetland area include vine maple (*Acer circinatum*), red alder (*Alnus rubra*), salmonberry (*Rubus spectabilis*), and several other species. Wildlife in the lowlands include mammals such as American black bear (*Ursus americanus*), coyote (*Canis latrans*), blacktail deer (*Odocoileus hemionus columbianus*), raccoons (*Procyon lotor*), and Douglas squirrels (*Tamiasciurus douglasii*). Birds present in the wetland area include Steller's jay (*Cyanocitta stelleri*), Cooper's hawk (*Accipiter cooperii*), and many other species. The wetland area and surrounding forest is not known to support threatened or endangered plant species (LYRA Biological, 2006). Although the mature forest near the landfill may represent suitable habitat for the northern spotted owl (*Strix occidentalis caurina*), few other threatened or endangered wildlife species (see

<https://wdfw.wa.gov/species-habitats/at-risk/listed>) are likely to be present in the region or occupy habitats in the wetland area.

The substrate of the wetland area is considered soil instead of sediment. Sediment is often defined as the material that is deposited on the bottom of a water body. The organisms that are typically evaluated in sediment investigations are aquatic species such as fish and benthic invertebrates. Few, if any, wetland area locations support significant populations of wholly aquatic organisms. Instead, most of the wetlands are seasonally inundated and are dry for a portion of the year. The plants and animals residing in the wetland area are mainly terrestrial organisms and not aquatic species. Because terrestrial organisms are present in the wetland area, the substrate is evaluated as soil.

2.2 CONTAMINANT OF CONCERN SELECTION

A COC is defined here as a landfill-related chemical with the potential to cause adverse effects to plants and animals in the environment near the landfill. Soil samples from the wetland area were collected from transects HA-02 [less HA-02G] through HA-07 (Figure 1). The primary chemicals associated with the landfill that have migrated to the wetland area are metals (see Section 8 of the RI/FS). Organic chemicals (e.g., benzo(a)pyrene and gasoline range organics) were evaluated in composite samples and have been detected in the portions of the wetland area nearest the landfill, but concentrations were below ecological SLs (see Section 7 of the RI/FS). These organic chemicals are not evaluated in this TEE. Landfill-related metals are defined as those present in the wetland area at concentrations above background levels. Background metals are those unrelated to the landfill, and typically come from two primary sources: natural sources (i.e., natural elements of the Earth's crust), and ambient sources that are sometimes associated with large-scale human releases (i.e., air emissions and subsequent regional deposition). Details regarding the calculation of point estimates of regional or natural background concentrations of metals in soil are presented in Section 7.1 of the RI/FS.

As mentioned above, COCs are defined in two ways: (1) metals related to the landfill and above background levels, and (2) chemicals present in soil at concentrations above risk-based SLs protective of terrestrial ecological receptors. COC selection for this TEE is shown in Table 1.

A metal is considered to be related to the landfill if the maximum concentration in soil of the wetland area was above the regional background point estimate. Presumably, the metal concentration was above the background point estimate at a sample location due to local enrichment following migration of the metal from a landfill source.

A metal determined to be elevated in lowland soil due to a release from the landfill was considered to be COC if the exposure point concentration (EPC) was above the lowest available ecological SL (Table 1). As mentioned above, ecological SLs were the Ecological Indicator Soil Concentration for Protection of Terrestrial Plants, Soil Biota, and Wildlife from Table 749-3 (WAC 173-340-900). The EPC is an estimate of the average chemical concentration in the exposure unit that a receptor may contact on a long-term basis (EPA, 1989). Populations of plants and animals do not constrain exposure activities to a single sample location. For example, wildlife (e.g., birds and mammals) can move over the landscape and are likely to

be exposed to soil at a variety of locations within an exposure unit. Similarly, plant populations or communities are distributed over areas larger than the typical sample point.

Consistent with WAC 173-340-7493(2)(a)(i), the EPC was defined as the 95% upper confidence limit (UCL) about the mean concentration in soil of the wetland area exposure unit. The exposure unit is defined as the wetland area beneath the toe of the landfill that has been investigated for landfill-related contamination. This area is likely to be smaller than the area over which local wildlife populations and local plant communities are distributed. The 95% UCL is used as the EPC instead of the average concentration in the exposure unit because of the uncertainty associated with estimating the population mean from a sample of soil. Use of the 95% UCL provides confidence that the true population mean will not be underestimated based on data from a sample. Details regarding the calculation of 95% UCLs about the mean for metals in surface soil of the wetland area exposure unit are given in Section 7.1 of the RI/FS. EPCs for metals in surface soil are also shown in Table 1.

As shown in Table 1, hexavalent chromium, selenium, and thallium were not detected in wetland area soil. Although the laboratory methods and reporting limits were consistent with conventional standards, detection limits may have been above background point estimates. The reporting limits for thallium were below the lowest ecological SL. Because there is no evidence that hexavalent chromium, selenium, and thallium are elevated above background levels, these metals are not considered COCs.

Maximum concentrations of barium, beryllium, chromium, and vanadium are below their respective background point estimates (Table 1). As a result, these metals do not appear to be elevated above natural levels due to a release from the landfill. EPCs for beryllium and chromium are below their respective lowest ecological SLs. Barium, beryllium, chromium, and vanadium are not considered COCs.

The maximum concentrations of copper, lead, zinc, arsenic, cadmium, cobalt, and nickel in wetland area soil are above their respective background point estimates (Table 1). These metals appear to be associated with a release from the landfill. The EPCs for arsenic, cadmium, cobalt, and nickel are below their respective lowest ecological SLs. As a result, arsenic, cadmium, cobalt, and nickel are not considered COCs.

In summary, the metals that appear to be related to the landfill and have EPCs greater than their lowest ecological SLs are copper, lead, and zinc. These three metals are considered COCs and are further evaluated in the TEE.

2.3 TERRESTRIAL ECOLOGICAL EVALUATION METHODS

To better evaluate if the COCs (copper, lead, and zinc) in wetland area soil may pose unacceptable risks to ecological receptors, field studies were performed to characterize the ecological communities in areas with relatively high COC concentrations called “impact” locations and areas with lower COC concentrations called “reference” areas. Consistent with WAC 173-340-7493(3)(e), hypothesis testing statistics were used to evaluate whether average ecological conditions (e.g., plant species richness and diversity; invertebrate abundance) were significantly different between impact and reference areas. If measures of ecological community characteristics in impact areas are significantly degraded relative to reference areas, it will be inferred that metals in soil have caused adverse effects to terrestrial ecological systems.

As discussed in greater detail in Section 4, three types of field studies were performed:

1. Plant Community – The diversity and abundance of plant vegetation cover was measured at both impact and reference locations.
2. Soil Invertebrate Abundance – The density of invertebrates (i.e., two types of worms) was measured in soil samples from both impact and reference locations.
3. Wildlife Observations – Camera traps were placed on game trails in the wetland area and recordings of wildlife were observed to determine if the health or behavior of wildlife may have been adversely impacted.

Plant surveys were performed at seven impact and seven reference locations (see Figure 1). Impact locations were selected as areas with relatively high zinc and/or lead concentrations. Reference areas were chosen based on samples with some of the lowest zinc and/or lead concentrations while also providing spatial diversity. An attempt was made to have impact and reference locations at roughly equal density along an approximate east/west axis along the base of the landfill. Invertebrate surveys were completed in five impact locations and five reference locations that were a subset of the 14 plant survey areas (Figure 1). Again, an attempt was made to select impact areas for both plant and invertebrate surveys that had high concentrations of COCs relative to reference areas.

As shown in Table 2, mean concentrations of all COCs were higher in the impact areas than reference areas. Using all sample results from multiple depths at ecological survey locations, mean concentrations of copper, lead, and zinc in impact areas were 2x, 4x, and 23x higher than in reference areas (Table 2). These results indicate that zinc concentrations in impact areas were typically over an order of magnitude higher than in reference areas. Similarly, maximum concentrations of copper, lead, and zinc in impact areas were 6x, 29x, and 63x higher than point estimates of natural background concentrations of these metals (Table 2). The maximum concentrations of copper, lead, and zinc in impact areas were 4x, 10x, and 63x higher than the lowest ecological SL for these metals (Table 2). Based on comparisons with ecological SLs, the potential for metals to pose unacceptable risks to ecological receptors is higher in impact areas than reference areas.

3. LITERATURE REVIEW

Literature was reviewed to determine concentrations considered protective, with the understanding that some studies may be based on environmental conditions or criteria that differ from those at the Site. An attempt was made to identify the Toxicity Reference Values (TRVs) and other information that was used by Ecology to develop the Ecological Indicator Soil Concentrations for Protection of Terrestrial Plants and Animals (WAC 173-340-900, Table 749-3). Other sources of toxicity data and/or Ecological Soil Screening Levels (Eco-SSLs) were reviewed and compared with the Table 749-3 values and approach. Resources investigated included TRVs and ecological screening values developed by Oak Ridge National Laboratory (ORNL) in the late 1990s, Eco-SSLs developed by the EPA in the mid-2000s, and other scientific journal articles or state/federal government reports with relevant toxicity information or ecological soil SLs. The literature search was not a comprehensive review of all potentially relevant reports or studies. A summary of toxicity results from the literature review are presented in Table 3.

Plant soil SLs in Table 749-3 are based on the ORNL 1997 *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Terrestrial Plants: 1997 Revision* (Efroymson et al., 1997a). Similarly, Table 749-3 soil SLs protective of soil biota are based on the ORNL 1997 *Toxicological Benchmarks for Potential Contaminants of Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision* (Efroymson et al., 1997b). In both cases, when ORNL benchmark values were below typical natural background concentrations for metals, Ecology set the SL at an estimate of the Washington natural background concentration.

For wildlife, Ecology set the soil SL at the lower of the risk-based value protective of birds or mammals. The TRVs used by Ecology were from a literature survey conducted in accordance with WAC 173-340-7493(4). Details regarding the decision criteria and actual calculations used to develop the wildlife soil SLs in Table 749-3 were not reviewed (they were not found). Based on the TRVs given in Table 749-5, the source of most values could be inferred. For zinc, the mammal and bird TRVs were based on the Lowest-Observed-Adverse-Effect-Level (LOAEL) for zinc oxide reported in the ORNL 1996 *Toxicological Benchmarks for Wildlife: 1996 Revision* (Sample et al., 1996). Similarly, the avian TRV for lead was based on the LOAEL for lead acetate in Sample et al. (1996), and the avian TRV for copper was based on the LOAEL for copper oxide in Sample et al. (1996). The source of the mammal TRVs for lead and copper in Table 748-5 is unclear. The mammalian lead TRV is similar to, but different from, the mammal No-Observed-Adverse-Effect-Levels (NOAELs) for lead acetate given in Sample et al. (1996). The mammalian copper TRVs differ for the shrew and vole, and the source of these TRVs was not found.

ORNL also developed preliminary remediation goals (PRGs) protective of several bird and mammal indicator species (Efroymson et al., 1997c). The lowest mammalian copper PRG was 370 mg/kg for the shrew, and the lowest bird PRG was 515 mg/kg for the woodcock (Table 3). For lead, the lowest mammalian PRG was 740 mg/kg for the shrew, and the lowest avian PRG was 40.5 mg/kg for the woodcock. The lowest mammalian PRG for zinc was 1,600 mg/kg for the shrew, and the lowest avian PRG for zinc was 8.5 mg/kg for the woodcock (Table 3).

EPA developed Eco-SSLs in the mid- to late-2000s for several chemicals. If sufficient high-quality data were available for a chemical, Eco-SSLs protective of plants, soil invertebrates, birds, and mammals were

developed. A relatively rigorous data evaluation process was used to develop Eco-SSLs, and these are often the preferred ecological SLs by many regulatory agencies. EPA developed Eco-SSLs for lead, zinc, and copper (see <https://www.epa.gov/chemical-research/interim-ecological-soil-screening-level-documents>).

The lead Eco-SSLs for plants (120 mg/kg) and invertebrates (1,700 mg/kg) are above the Table 749-3 values for plants (50 mg/kg) and invertebrates (500 mg/kg). However, the lowest wildlife Eco-SSL for lead (11 mg/kg for birds) is below the Table 749-3 value of 118 mg/kg. In fact, the Eco-SSL is well below natural background concentrations in soil of much of the U.S.

The zinc Eco-SSL for plants (160 mg/kg) is above the Table 749-3 values for plants (86 mg/kg, which is background). The invertebrate Eco-SSL of 120 mg/kg is below the Table 749-3 invertebrate value of 200 mg/kg. Similarly, the lowest wildlife Eco-SSL for zinc (46 mg/kg for birds) is below the Table 749-3 value of 360 mg/kg and is also below the natural background concentration estimate of 86 mg/kg.

The copper Eco-SSL for plants (70 mg/kg) is below the Table 749-3 values for plants (100 mg/kg). The invertebrate Eco-SSL of 80 mg/kg is above the Table 749-3 invertebrate value of 50 mg/kg. The lowest wildlife Eco-SSL for copper (28 mg/kg for birds) is below the Table 749-3 value of 217 mg/kg.

The bird Eco-SSLs for lead (11 mg/kg) and copper (28 mg/kg) are below their respective regional background concentrations (see Table 1). Given that many terrestrial organisms in the U.S. have evolved with natural lead and copper concentrations above the avian Eco-SSLs for these metals, it is unlikely that these SLs are reliable predictors of threshold concentrations for adverse effects in wildlife. For this reason, Sample et al. (2019) revisited the derivation of the avian Eco-SSL for lead. They report that some of the lead toxicity test data for Japanese quail (*Coturnix japonica*) used in the Eco-SSL is highly variable and unreliable. They recommend excluding these data for Japanese quail and emphasizing chicken toxicity data, which were less variable and more reliable in TRV derivation. Sample et al. (2019) also recommend use of dose-response relationships instead of NOAELs/LOAELs as a preferred method in lead TRV development. They use a 10th percentile effective dose (ED10) as a threshold dose comparable to a NOAEL and an ED20 as comparable to a LOAEL. They calculated soil SLs for several bird indicator species, including the American robin (*Turdus migratorius*), which is the bird indicator species used by Ecology in Table 749-3. The lead soil SLs for the robin based on the ED10 was 74.6 mg/kg, and the value based on the ED20 was 180.6 mg/kg.

In a study of how exposure to lead in sediment of the Coeur d'Alene River Basin in Idaho may harm waterfowl, Beyer et al. (2000) added lead-contaminated sediment to the diet of Canada geese (*Branta canadensis*) and mallards (*Anas platyrhynchos*) in the laboratory. They estimated that the NOAEL concentration of lead in ingested sediment for waterfowl was 24 mg/kg, the LOAEL was 530 mg/kg, and the concentration associated with increased mortality was 1,800 mg/kg.

It is well known that the bioavailability of metals in soil can be strongly influenced by a variety of soil characteristics such as pH, particle size, organic carbon, reduction/oxidation conditions, and others (Langmuir et al., 2004). Eco-SSLs and comparable ecological soil SLs generally do not consider important factors that influence metal bioavailability in soil. Eco-SSLs and similar SLs are often based on toxicity studies using soluble metal salts with relatively high bioavailability. Recently, Australia has developed draft

soil quality guidelines (SQGs) protective of ecological receptors that attempt to incorporate some of the known soil factors that influence bioavailability (<https://www.nepc.gov.au/sites/default/files/2022-09/schedule-b5c-guideline-soil-quality-guidelines-sep10.pdf>). Consideration of factors that influence bioavailability is important because many sites have contamination that was released years in the past. Bioavailability and toxicity of many metals decreases over time because metals (especially metal ions) bind to soil particles or form complexes due to chemical and biological processes in soil (Smolders et al., 2009).

Australia SQGs were developed using toxicity data for plants, soil processes, and soil invertebrates. Three different biological effect levels were evaluated: a no-effect level typically estimated as a threshold for adverse effects in test organisms, a low-effect level representing the lowest concentrations associated with adverse effects, and a median-effect level representing concentrations associated with adverse effects in half of the test population. The sets of toxicity data for these three effect levels were as follows: (1) no observable effect concentration (NOEC) and the effective concentration associated with adverse effects in 10 percent of the test population (EC10); (2) low observable effect concentration (LOEC) and EC30; and (3) EC50. The Australia SQGs were also developed for three settings: (1) national parks with relatively pristine ecological systems warranting a high level of species protection; (2) residential and public open space; and (3) commercial and industrial lands.

The draft Australia SQGs for zinc are a function of two primary soil conditions: pH and cation exchange capacity (CEC) in moles of electric charge per kilogram of soil (cmol_c/kg). Assuming the natural background concentration of zinc in soil is 86 mg/kg (Washington background estimate), the SQGs based on LOEC/EC30 effects (comparable to many Table 749-3 toxicity data) for aged zinc in a public open space (former landfill is not a national park) range from 156 mg/kg (pH=4, CEC=5) to 1,386 mg/kg (pH=7.5, CEC=60). The pH and CEC in soil at the Site are unknown, but the pH in soil of many forested areas in western Washington is slightly acidic. Using a pH of 6.5 and mid-range CEC of 20 cmol_c/kg, the zinc SQG protective of plants and soil biota is 676 mg/kg.

For lead, the draft Australia SQG guidance reports that less than half the variance in bioavailability/toxicity of lead in soil is typically explained by factors such as pH, organic carbon content, clay content, or CEC. Therefore, these factors were not used in the draft lead SQG derivations. Assuming a natural background concentration of lead in soil of western Washington of approximately 20 mg/kg (Ecology, 1994), the Australia SQG for aged lead based on LOEC/EC30 in a public open space is 1,120 mg/kg.

In summary, most of the ecological SLs in Table 749-3 are within an order of magnitude of Eco-SSLs and similar values developed by others. One exception is the avian Eco-SSL for lead of 11 mg/kg which is an order of magnitude below several other wildlife soil SLs for lead such as the Table 749-3 values of 118 mg/kg, the sediment LOAEL for waterfowl from Beyer et al. (2000) of 530 mg/kg, and the Sample et al. (2019) ED20-based value (approximate LOAEL) for the American robin of 180.6 mg/kg (Table 3). Also, the lead Eco-SSL protective of invertebrates (1,700 mg/kg) and the Australia SQG for lead protective of plants and soil biota (1,120 mg/kg) are higher than the ORNL invertebrate SL used in Table 749-3 of 500 mg/kg. Only a single soil sample collected (DU-01 which is located at the borrow pit and outside the Site extents) had a lead concentration above the invertebrate Eco-SSL of 1,700 mg/kg, and there are reasons to think that remaining lead concentrations are below levels that cause adverse effects to soil biota. The ORNL avian PRG for zinc of 8.5 mg/kg is significantly lower than other zinc wildlife SLs. The

Australia SQG for zinc in soil is a function of soil pH and CEC. These soil characteristics have not been measured at the Site. However, if the bioavailability of aged zinc in soil at the Site were considered using the draft Australia method, it is probable the site-specific SL protective of plants and soil biota would be several hundred mg/kg and above the comparable Table 749-3 SLs for plants and soil invertebrates.

4. VEGETATION EVALUATION

To better evaluate if metals released to soil are causing adverse effects to plants, plant community characteristics (e.g., species diversity and relative abundance) were measured in areas with and without elevated concentrations of copper, lead, and/or zinc in soil. Specifically, species-specific foliar cover was estimated at both the ground and canopy levels (Bonham, 1989). Statistics were then used to evaluate if plant community metrics in impact locations with high metals concentrations were different from those in reference locations with relatively low metals concentrations. In addition to measuring plant diversity and abundance, general observations of plant health were made at each location.

4.1 METHODS

As mentioned previously, plant surveys were performed at seven impact locations and seven reference locations (see Figure 1). Impacted locations were defined as having concentrations of lead up to 501 mg/kg and/or concentrations of zinc up to 5,420 mg/kg. Reference locations were chosen based on samples with some of the lowest zinc and lead concentrations while also providing spatial diversity. An attempt was made to have impacted and reference locations at roughly equal density along an approximate east/west axis along the base of the landfill.

At each plant survey location, a 10-foot by 10-foot cell was centered around the spot where a soil sample was previously collected, and cell boundaries were either marked with flagging or visually estimated. Ground cover was estimated as the proportion of the ground in each cell that was covered (i.e., obscured) with vascular plant leaves or stems. Ground that was covered with moss was not considered plant cover in this survey. Foliar cover in the canopy was estimated as the percent of sky that was obscured by plant leaves or branches. In most cases, the vascular plant obscuring the ground or sky could be identified to the species level, but in one instance plants were identified to the genus level (i.e., *Esquisetum* spp). The minimum area over which species-specific cover was estimated was 5 percent of the cell. Percent cover could exceed 100% if leaves of different plant species overlapped. This was more common with canopy cover because the interval with leaves and branches between the observer and the sky was often over 50 feet but with ground cover only a few feet separated the observer and the ground. The approximate height interval of the plants obscuring the sky was estimated for canopy cover.

In general, two aspects of the plant community were measured and evaluated: diversity and relative abundance. Diversity reflects the number of species in a community. Relative abundance reflects how dominant or rare a species is in terms of density/biomass/cover relative to other species. Plant communities with high evenness are assemblages where the relative abundance of different species is similar, and species are considered dominant when they have high abundance relative to other plants in the community. Metrics that reflect plant diversity and relative abundance included the following:

Species richness (S) - The total number of different species in an area. Species richness is a count of the different species and is an indicator of diversity. It does not consider abundance.

Shannon Index (H) - A diversity metric that estimates entropy and considers both species richness and relative abundance (evenness). The higher the index, the greater the diversity of the community. The index is calculated as follows:

$$H = - \left(\sum_{i=1}^k p_i \times \ln(p_i) \right)$$

Where:

k = Total number of species in community (or sample)

p_i = Proportion (e.g., percent cover) of community belonging to the i th species

Simpson Index (D) – A measure of diversity that considers both the number of species and their relative abundance. This measure estimates the probability that two randomly selected members of the community will be of the same type. The index ranges between 0 and 1, and a higher value reflects lower diversity. The index is estimated as follows:

$$D = \sum_{i=1}^k p_i^2$$

Simpson Reciprocal Index (RI) – A diversity index that is the inverse of D. As mentioned above, D has the counterintuitive quality that the value decreases with increasing diversity. This index will have a minimum value of 1 when there is only a single species in the community, and the index value will increase as community diversity increases. The index is estimated as follows:

$$RI = \frac{1}{D}$$

Hypothesis testing statistics in the EPA ProUCL 5.1 (e.g., one-way analysis of variance [ANOVA]) were used to test if mean estimates of S, H, D, and RI at impact locations were different from reference areas. Alpha, the probability of rejecting the null hypothesis when the null hypothesis is true, was set at 0.05 (5%). If the P-values were above 0.05, it is inferred that there is no significant difference between impact and reference groups in plant community characteristics and that COCs concentrations in soil are not causing significant effects to plant communities.

Although the study was designed to compare impact and reference populations and not COC exposure/response relationships (i.e., changes in plant communities over a gradient of metal concentrations in soil), regression analyses were used as means to better explore the potential relationship between metals concentrations and plant community characteristics. Using either lead or zinc as independent variables, linear regression was used to evaluate how S, H, D, and RI (dependent variables) vary as a function of metal concentration in soil. Insufficient soil data were available for copper to perform informative regression analyses. Typically, when one performs a large number of statistical tests, some test results will have P-values less than 0.05 purely by chance. When multiple comparisons

are being made, statistical corrections (e.g., Bonferroni correction) are often used to prevent the inflation of false positives. However, because these are intended to be exploratory evaluations, no corrections were made to account for multiple comparisons.

General plant health was also observed in each cell. An attempt was made to record the presence of non-native plants and evidence of plant stress due to contaminant exposure. Potential visual indicators of plant stress included wilting, chlorosis, browning, excessive mortality, and reduced growth.

4.2 RESULTS

Attachment A presents photographs of the ground and canopy at each sample location. Common names of the plant species observed, scientific names, and a four-letter acronym for each plant species is given in Table 4. Table 5 shows ground and canopy foliar cover measurements for each location, along with plant community metrics (i.e., S, H, D, and RI). Summary statistics and statistical test results are shown in Table 6. Output from QQ plots, box plots, goodness-of-fit (GOF) tests, and parametric and non-parametric one-way ANOVA tests are presented in Attachment B.

As shown in Table 5, a total of 15 vascular plant species were observed to be covering at least 5% of the ground or canopy in the fourteen 10-foot by 10-foot survey cells. None of these plants are considered invasive or non-native species. In fact, few non-native plant species were observed in the wetland outside of the survey cells.

There was no obvious visual evidence of plant stress due to the potential toxic effects of exposure to metals in soil. However, due to the time of year, some mainly annual plants showed signs of chlorosis that appeared to be the result of natural senescence. For the most part, these plants appeared to have already flowered. None of these yellowed plants were common or abundant, and none had foliar cover of over 5% of the ground or canopy.

As shown in Table 6, mean plant community diversity and relative abundance metrics based on measurements of both ground and foliar cover are similar in reference and impact areas. Parametric and nonparametric one-way ANOVA (i.e., Kruskal Wallis H test) were used to test whether mean plant community metrics were significantly different between impact and reference populations (ProUCL 5.1 ANOVA output is in Attachment B). For both ground and canopy cover, plant community data (i.e., S, H, D, and RI) characteristics generally met the assumptions of parametric ANOVA, with some potential exceptions. For example, with ground cover, GOF tests and QQ plots show that most plant community data have approximately normal distributions (see Attachment B). GOF tests and QQ plots show that many of the plant community metrics for canopy cover also appear to have a normal distribution, although some do not show a discernable distribution (Attachment B). A visual inspection of box plots suggests variance in ground cover data may be similar between impact and reference populations, although impact populations may have higher variance for some metrics. Based on inspection of box plots, the variance in canopy cover plant community data appear more similar (Attachment B). In general, plant community data appear to meet the assumptions of parametric ANOVA. However, there may be cases where data do not meet the assumptions of parametric ANOVA. Results of both parametric and nonparametric ANOVA are reported in Table 6.

As shown in Table 6, parametric and nonparametric ANOVA results indicate that there are no significant differences in mean S, H, D, or RI for ground and canopy cover between impact and reference populations. In fact, a brief inspection of the raw plant metric scores and their means and standard deviations suggests that there is considerable similarity between the two groups. Based on these results, there is no evidence to suggest that exposure to COCs in soil has caused significant changes to plant species diversity or relative abundance.

Ordinary least squares regression was used to explore potential exposure/response relationships between concentrations of lead and zinc in soil and plant community characteristics. The sample size for copper is too small to develop informative associations between soil concentrations and plant community characteristics. Table 7 presents regression statistics (e.g., intercept, slope, F-value, P-value), and Attachment C gives ProUCL output along with graphs of S, H, D, and RI as a function of lead and zinc concentrations. As shown in Table 7, plant diversity and relative abundance in the canopy was poorly associated with lead and zinc concentrations. For example, slopes of the relationships were small (also see graphs in Attachment C), and P-values were generally well above 0.05. The exception was zinc and canopy plant species richness (Table 7). In this case, the highest species richness was observed at the location with the highest concentration of zinc in soil (Attachment C). No attempt was made to investigate plant community characteristics over a gradient of zinc concentrations, and this particular observation is unlikely to reflect a general relationship. It is unlikely that high zinc concentrations somehow promote plant species richness.

In general, plant community characteristics based on ground cover (diversity and relative abundance) were also poorly associated with lead and zinc concentrations (Table 7, Attachment C). However, there were exceptions. Plant community characteristics of ground cover were positively associated with concentrations of lead in soil (Table 7, Attachment C). It appears that these apparent associations were driven by a location with relatively high concentrations of lead that happened to also have relatively high plant diversity and abundance. No lead gradient in soil was intentionally investigated, there were only a couple of locations that had exceptionally high lead levels, and one of these locations happened to have high plant diversity and abundance. There is little reason to think that high lead levels in soil promote plant diversity and abundance.

5. SOIL INVERTEBRATE EVALUATION

Consistent with WAC 173-340-7493(3)(e), a site-specific field study of terrestrial invertebrate (earthworms) abundance in impact and reference areas was performed to evaluate if COCs in soil are causing adverse effects to soil-dwelling invertebrates. Five impact areas and five reference areas were evaluated. These areas were a subset of the 14 plant survey areas (see Figure 1). Again, impact areas selected for invertebrate surveys had relatively high concentrations of COCs compared to reference areas (Table 2). Hypothesis testing statistics were used to evaluate if the mean abundance of worms in impact areas is different from that in reference areas.

5.1 METHODS

Within each of the 10-foot by 10-foot plant survey grid cell that were centered around soil sample locations, five pits were dug and the soil in these pits was surveyed for the presence of worms. A 1-foot diameter metal cylinder was used to define the boundaries of pits. Each pit was excavated to a depth of 6 inches. The contents of pits were sorted by hand for worms. Two types of worms were recorded: pot worms (family Enchytraeidae) and earthworms (family Lumbricidae or Megascolecidae). These worms were not identified to the level of species. Although there are native earthworms in western Washington (many from family Megascolecidae), invasive worms from Europe are common (many in family Lumbricidae). Both pot worms and earthworms belong to the phylum Annelida. Pot worms are white and typically smaller than earthworms. Earthworms are typically gray and have a glandular swelling in the anterior portion of the body called the clitellum. Attachment D shows photographs of the metal cylinder used to define pit boundaries along with pot worms and earthworms that were found in soil.

Hypothesis testing statistics (e.g., ANOVA) were used to test if mean earthworm and total worm abundance at impact areas were different from reference areas. The probability of rejecting the null hypothesis when the null hypothesis is true (alpha) was set at 0.05. If the P-values were above 0.05, it is inferred that there is no significant difference between impact and reference groups in worm abundance and that COC concentrations in soil are not causing significant effects to soil invertebrate communities.

Regression analyses were used to explore the potential relationship between metals concentrations in soil and worm abundance. Lead or zinc were set as independent variables, and linear regression was used to evaluate how total worm abundance varies as a function of metal concentration in soil. Insufficient copper data were available for these regression analyses. Again, no statistical corrections (e.g., Bonferroni correction) were used to account for multiple comparisons.

5.2 RESULTS

Table 8 gives the number of earthworms and pot worms found in the five replicate pits excavated at each of the impact and reference areas. Earthworms were found in over 70 percent of sample pits, and numbers per pit ranged from 0 to 10. Pot worms were found in less than 30 percent of pits, and numbers ranged from 0 to 8.

The mean and standard deviation of earthworms and total worms was similar between reference and impact groups (Table 9). Because pot worms were infrequently detected, ANOVA statistics were calculated for earthworm and total worm abundance. An inspection of GOF tests and QQ plots suggests that earthworm and total worm abundance data do not fit a normal distribution (see Attachment E). A visual inspection of box plots suggests variance in earthworm and total worm abundance may be higher in the reference population relative to the impact populations (Attachment E). Worm abundance data do not appear to meet the assumptions of parametric ANOVA, and nonparametric ANOVA test results appear to be most appropriate. However, both nonparametric and parametric one-way ANOVA results are reported in Table 9.

As shown in Table 9, nonparametric (and parametric) ANOVA results indicate that there are no significant differences in mean earthworm and total worm abundance between impact and reference groups. Instead, earthworm and total worm abundance are very similar between the two groups. These results indicate no evidence that exposure to COCs in soil has caused significant changes to worm abundance.

It should be noted that no worms were detected in soil at location 05E, which was a reference area. The soil type at this location was noticeably different than that found at the other locations. Soil at location 05E was mainly sand (see Appendix A of the RI/FS). Although speculative, it is possible that worms may avoid sandy soil, especially if more preferable substrates are nearby. The mean abundance of earthworms and total worms in the impact group is 3.40 and 4.60, respectively (Table 9). Mean abundance of earthworms and total worms in the reference group is 2.84 and 3.28, respectively (Table 9). Worm abundance in the impact group is consistently higher than in the reference group. When results from location 05E are removed, mean worm abundance of the reference group is more similar to that of the impact group. Mean earthworm and total worm abundance of the reference group after removal of location 05E data are 3.55 and 4.10, respectively. It appears that worm abundance in impact and reference areas are very similar in locations with comparable soil types.

Regression was used to explore potential exposure/response relationships between concentrations of lead and zinc in soil and total worm abundances. Table 7 presents regression statistics (e.g., intercept, slope, F-value, P-value), and Attachment C gives ProUCL output along with graphs of worm abundance as a function of lead and zinc concentrations. As shown in Table 7, total worm abundance was poorly associated with lead and zinc concentrations. Again, there is no evidence that elevated concentrations of lead or zinc in soil have caused adverse effects to soil invertebrates.

6. DEPTH-WEIGHTED RECEPTOR ADJUSTMENT

Ecological receptors are likely to have different exposures to soil at different depths depending on their natural history characteristics. For example, most wildlife that forage on the ground surface are likely to have highest exposure to surface soil (i.e., 0 to 6 inches below ground surface [bgs]). Wildlife that typically live and forage below ground (i.e., moles, pocket gophers) are likely to have highest exposures to subsurface soil (over 6 inches bgs). It should be noted that no evidence of burrowing wildlife was noted in the wetlands, likely because most soil is saturated and muddy, and unlikely to structurally support burrows. Many of the wetland plants have shallow root systems. As discussed in the WOE Work Plan (GSI, 2022), the density of small plant roots was used as an indicator of ecological exposure intensity with depth.

Although not explicitly quantified, it was clear during soil excavations to enumerate worms that almost all of the small plant roots were found in the 0 to 6 inches bgs soil interval. Similarly, almost all worms found in soil were associated with small plant roots. Although several attempts were made to photograph small plant roots, relative root density is poorly illustrated in photos. Attachment F presents photographs of excavated roots at five different locations: near 02C, 02B, 03B, 02A, and one location not near a soil sample. The proportion of all roots in the excavation that were within the 0 to 6 inches bgs soil interval were 0.9, 0.95, 1, 0.95, and 0.95, respectively. However, relative plant root density was best determined through both sight and feel, and visual patterns of relative root density with depth are not obvious in the photographs.

Depth-weighted soil exposure concentrations were estimated using Ecology's Depth Weighted Receptor Adjustment Equation (Ecology, 2017):

$$C_{ea} = (C_{c(1)} \times Pr_{(1)}) + (C_{c(2)} \times Pr_{(2)})$$

Where:

C_{ea} = Exposure adjusted contaminant concentration

$C_{c(1)}$ = Soil contaminant concentration at sample depth 1 (0 to 6 inches bgs)

$C_{c(2)}$ = Soil contaminant concentration at sample depth 2 (6 to 12 inches bgs)

$Pr_{(1)}$ = Proportion of receptor exposure at sample depth 1

$Pr_{(2)}$ = Proportion of receptor exposure at sample depth 2

There were limited copper data, so this evaluation focused on lead and zinc. As shown in Table 10, lead and zinc concentrations in surface soil (0 to 6 inches bgs) were available for all locations. At a subset of these locations, lead and zinc sample results were also available for subsurface locations: 6 to 12 inches bgs and 12 to 24 inches bgs. However, as noted above, very few small plant roots were found below 6 inches bgs, and data from the 12 to 24 inches bgs interval were not used to estimate depth-weighted exposure concentrations. $Pr_{(1)}$ (proportion of receptor exposure for the 0 to 6 inches bgs depth interval)

was set at 0.95, and $Pr_{(2)}$ was set at 0.05. If no subsurface soil samples were available for a location, only the available surface soil results were used. For locations with duplicate sample results, only concentrations in the primary sample were used.

Depth-weighted exposure concentrations are presented in Table 10. These data were used to estimate a depth-weighted EPC for ecological receptors. The EPC is an estimate of the long-term average concentration an ecological receptor, or population of receptors, may experience at the Site. Because there is uncertainty associated with estimating the population mean from a sample, the 95% UCL on the mean was used as the EPC (EPA, 1989). ProUCL was used to estimate 95 UCLs based on depth-weighted lead and zinc concentrations. ProUCL output is given in Attachment G, and the depth-weighted 95 UCLs about the means are as follows:

- Lead EPC = 225 mg/kg
- Zinc EPC = 1,799 mg/kg

Hazard quotients (HQs) are estimated as the ratio of the depth-weighted EPC over an ecological SL. HQs for lead and zinc are given below for plants, soil biota, and wildlife. The HQs are based on the Table 749-3 ecological SLs along with some of the alternative SLs discussed in Section 2.

Lead HQs based on the Table 749-3 SLs for plants (50 mg/kg), soil biota (500 mg/kg), and wildlife (118 mg/kg) are as follows: Plant HQ = 4.5, Soil biota HQ = 0.5, and Wildlife HQ = 1.9. If we use the EPA Eco-SSLs for plants (120 mg/kg) and invertebrates (1,700 mg/kg), along with the Sample et al. (2019) SL for the American robin for wildlife, the HQs for lead are as follows: Plant HQ = 1.9, Soil biota HQ = 0.1, and Wildlife HQ = 1.3. Based on these HQs, lead in soil is not expected to cause adverse effects to soil-dwelling invertebrates. The draft Australia lead SQG protective of plants and soil biota based on LOEC/EC30 in a public open space is 1,120 mg/kg and well above the lead EPC.

Using Table 749-3 zinc SLs for plants (86 mg/kg based on background), soil biota (200 mg/kg) and wildlife (360 mg/kg), HQs are as follows: Plant HQ = 20.9, Soil biota HQ = 9, and Wildlife HQ = 5. If we use the EPA Eco-SSL for plants (160 mg/kg), the Plant HQ = 11.2. HQs for plants and soil biota are likely to be lower if bioavailability of zinc in soil were to be considered consistent with the draft Australia SQG approach.

In summary, with the exception of the lead HQ for soil biota, HQs based on depth-adjusted EPCs are above the acceptable risk level of 1. Ecological SLs for metals can often overestimate ecological toxicity. For example, roughly one third of the plant, invertebrate or wildlife EPA Eco-SSLs for metals are below typical natural concentrations in soil of some portion of the U.S. (<https://www.epa.gov/chemical-research/interim-ecological-soil-screening-level-documents>). It is unlikely that ubiquitous natural metals concentrations in soil are causing unacceptable adverse effects to ecological receptors. Instead, metal bioavailability strongly influences ecological toxicity, and many ecological SLs are based on toxicity studies using fresh metal salts with high bioavailability. These relatively high bioavailability metals often differ from the forms of metals found at older historical metals release sites. It seems likely based on results of the Site-specific evaluation that the above SLs overestimate lead and zinc risks to ecological receptors.

7. WILDLIFE BEHAVIOR EVALUATION

A series of four remote motion sensor game cameras were stationed at various locations within the wetland area to allow for the monitoring of wildlife over a period of approximately 4 weeks. Two cameras were set up to view animals on established game trails, and two were oriented towards trees supporting bait-baskets filled with suet. Bait-baskets with suet were placed approximately 15 feet from the camera. Cameras were set up to record one-minute videos when motion is detected. Videos from the cameras were analyzed for behaviors or characteristics associated with excess contaminant uptake in wildlife, including (but not limited to):

- Muscular incoordination
- Debility
- Slowness
- Jerkiness
- Falling
- Hyperactivity
- Fluffed feathers
- Drooped eyelids
- Seizure

Table 11 presents information regarding the date and time a video was recorded along with the animals present in the video. A total of 22 videos were recorded. Of these, 13 videos captured birds or mammals, and 9 showed no apparent wildlife. Animals clearly visible in videos included Steller's jay, raccoons, black-tailed deer, coyote, black bear, Cooper's hawk, and Douglas squirrels. None of the animals observed in videos appeared to be sick or injured, nor did they display behavior suggesting that they were ill or unhealthy. To the contrary, all wildlife appeared healthy and vital. For example, the coyote appears to have a thick coat, perhaps in preparation for winter, and the squirrels and raccoons moved swiftly and smoothly over the landscape. Several videos show wildlife foraging in a natural manner, and many of the feeding behaviors appear to be complex (e.g., raccoon washing food).

8. WEIGHT OF EVIDENCE EVALUATION

Based on a WOE ecological evaluation using results of multiple independent investigations, there is a low probability that elevated concentrations of COCs in soil at the Site are causing unacceptable adverse effects to terrestrial ecological receptors. The most relevant and reliable evidence to evaluate potential effects of metals exposure on ecological receptors is direct measurement of ecological conditions in the field. Plant diversity and relative abundance along with the abundance of earthworms and pot worms (worms were used as indicators of soil-dwelling invertebrates) were measured in impact areas with relatively high concentrations of metals in soil, and reference areas with relatively low metals concentrations. No evidence of adverse effects of metal exposure on plants or soil invertebrates was found. Instead, the plant and invertebrate communities in impact and reference areas were very similar, consistent with expectations if there were no significant adverse effects due to exposure to metals in soil.

There were no obvious visual signs that conditions at the Site caused adverse effects to plants or wildlife. With the exception of seasonal changes in plant conditions (i.e., natural senescence of annual plants), there were no obvious indications of poor plant health due to metals toxicity. Wildlife were observed in the wetlands near the toe of the landfill, along with signs of wildlife such as deer and bear prints in muddy soil. Several birds and a frog in the genus *Rana* (not captured and could not be identified to species) were observed in the wetlands. There was no obvious evidence that wildlife were more abundant outside of metal-impacted areas of the wetland.

Several individuals from seven different bird and mammal species were captured on videos from wildlife cameras. None of the birds or mammals observed in videos appeared to be unhealthy. To the contrary, all wildlife appeared to be vigorous and were behaving in a natural manner. Again, there is no evidence that wildlife were adversely impacted by metals in soil.

The least reliable line of evidence available to evaluate ecological effects is comparisons of metals concentrations with conservative ecological SLs. Based on screening-level ecological risks using a depth-weighted EPC, lead in soil is not expected to cause adverse effects to soil-dwelling invertebrates. Also, based on comparisons with an alternative SL, lead would not exceed the acceptable risk level for wildlife if the HQ is expressed with one significant digit. Screening-level risks that lead may pose to plants is low ($HQ < 2$). Plant, soil biota, and wildlife HQs for zinc in soil are at or above 5. As discussed previously, many ecological SLs overestimate risks because they are based on toxicity studies using forms of metals with relatively high bioavailability.

There is no evidence that COCs in soil are causing adverse impacts to plant or invertebrate communities in the wetland area. Plant diversity and abundance along with invertebrate abundance are similar in areas with relatively high concentrations of landfill-related chemicals (e.g., copper, lead, zinc, and perhaps petroleum hydrocarbons) compared to areas with low concentrations of these chemicals. Therefore, the highest concentrations of COCs in soil of the wetland area may represent site-specific “no-effect” concentrations that are protective of local ecological receptors. For example, two of the three highest concentrations of zinc in soil were from impact station HA-02E. As shown in Table 5, plant diversity and abundance measures at this location were typical of most other survey sites and were not especially low. Similarly, worm abundance at HA-02E was relatively high. The two survey locations with the highest

concentrations of lead were 05A and 06D. Again, plant diversity and abundance at 06D is relatively high, and typical at 05A. Invertebrate density is relatively high at both 05A and 06D. Although there are fewer results for copper, the highest concentration was at 02C. Although no invertebrates were sampled at this location, measures of plant diversity and abundance were similar to many other locations. The highest concentrations of copper, lead, and zinc in wetland area soils that appear to be protective of local biota are 208 mg/kg, 501 mg/kg, and 5,420 mg/kg, respectively (Table 2).

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FIGURE

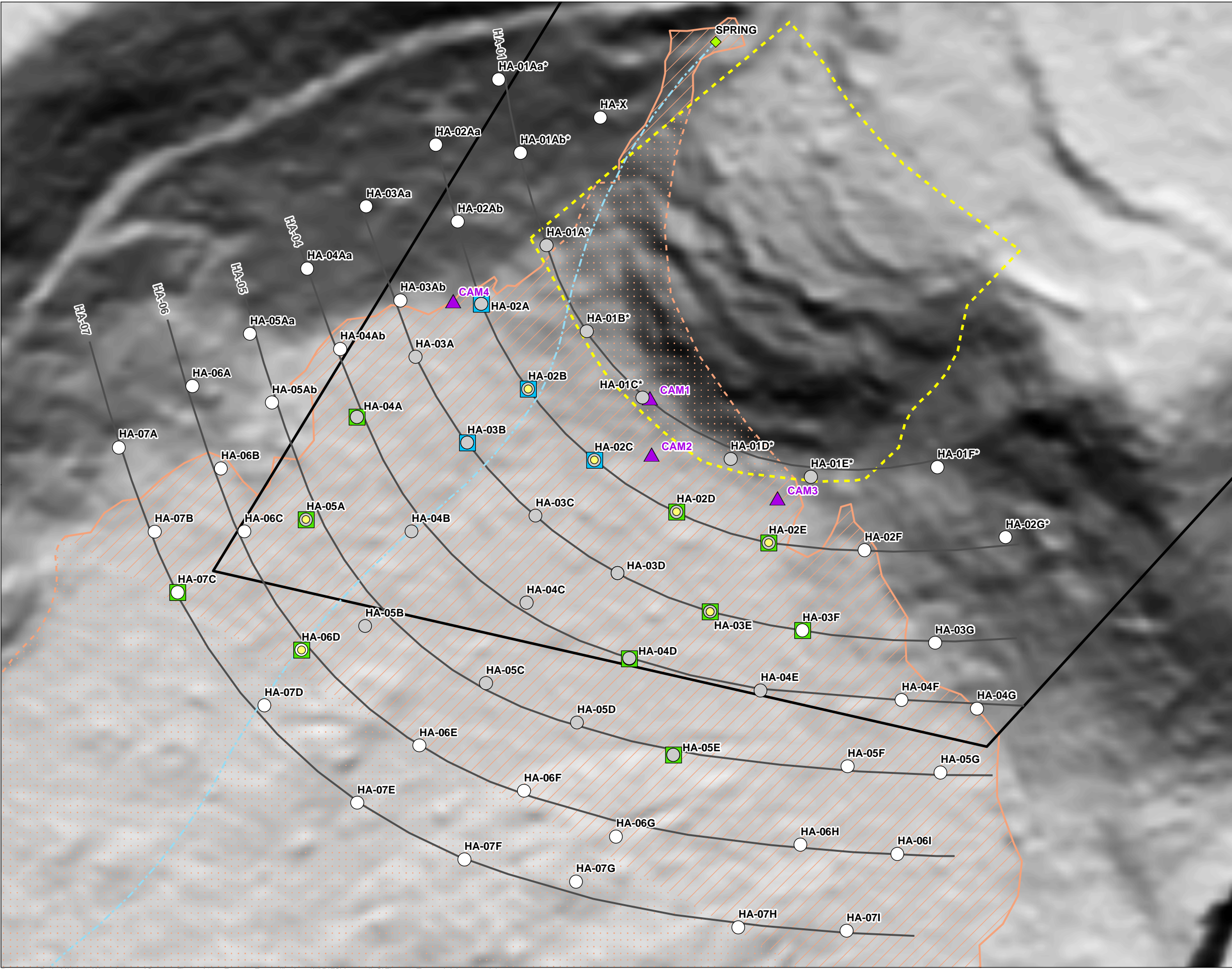


FIGURE 1
**Terrestrial Ecological
Evaluation Locations**

Remedial Investigation/
Feasibility Study: Appendix G
Former Eatonville Landfill
Eatonville, WA

LEGEND

Wetland Area
Inferred Wetland Area

Terrestrial Evaluation Locations

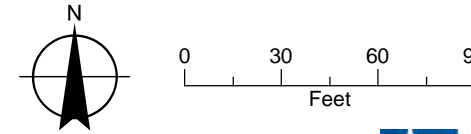
Plant and Invertebrate
Additional Plant and Root Density

All Other Features

Camera Location
Spring
Impacted Location¹
Soil Boring Sample Location
Summer 2022 Step-Outs
Soil Sample Transect
Flow Path
Estimated Extent of the Landfill
Weyerhaeuser Property

NOTES
1. All locations without this symbol are considered "Reference (non-impacted)" locations.

Site features are approximate.
*Part of the landfill.



Date: October 26, 2023
Data Sources: USGS, ESRI, DNR (2011),
Pierce Co.



TABLES

Table 1. Background Metals Concentrations in Soil

Metal	Units	Number of Wetland Area Samples ^a	Number of Detections	Statistical Distribution	Max Location	Max Concentration Depth Interval (ft)	Max Concentration in Wetland Area (mg/kg)	Natural Background (mg/kg)	Wetland Area Data 95% UCL (mg/kg)	Lowest Ecological SL (mg/kg)
Arsenic	mg/kg	25	21	Normal	HA-02E	0-0.5	12.5	7 ^b	4.6	10
Barium	mg/kg	25	25	Normal	HA-02D	0-0.5	116	780.4 ^c	80	102
Beryllium	mg/kg	25	4	Normal	HA-02C	0-0.5	0.85	2 ^b	0.3	10
Cadmium	mg/kg	25	18	Normal	HA-02D	0-0.5	5.03	1 ^b	1.7	4
Total Chromium	mg/kg	25	25	Normal	HA-03A	0-0.5	26.01	42 ^b	16.5	42
Hexavalent Chromium	mg/kg	25	25	—	—	—	ND	—	ND	—
Cobalt	mg/kg	25	21	Normal	HA-02E	0-0.5	82.3	29.19 ^c	12.3	20
Copper	mg/kg	25	25	Normal	HA-02C	0-0.5	208	36 ^b	68.6	50
Lead	mg/kg	80	80	Gamma	HA-06D	0-0.5	501	17 ^b	111	50
Nickel	mg/kg	25	20	Normal	HA-02C	0-0.5	51.4	38 ^b	18.6	30
Vanadium	mg/kg	25	25	Normal	HA-03A	0-0.5	38.8	243.9 ^c	34.1	2
Selenium	mg/kg	25	0	—	—	—	ND	0.611 ^c	ND	1
Thallium	mg/kg	25	0	—	—	—	ND	0.374 ^c	ND	1
Zinc	mg/kg	90	90	Normal	HA-02D	0.5-1.0	5,420	86 ^b	889.3	86

Notes:

Retained as a wetland metal COC

Screening factor that eliminates consideration as a COC

^a All discrete samples from the wetland area that includes transects HA-02 through HA-07.^b Washington State Department of Ecology 90th percentile Statewide background value^c USGS 2013 top 5 cm in mixed forest setting 90% Upper Tolerance Limit (UTL)/90% Coverage

— = not applicable

mg/kg = milligrams per kilogram

ND - Non Detect

SL = screening level

UCL = upper confidence limit

UTL = upper tolerance limit

Table 2. Concentrations of COCs at Plant and Invertebrate Survey Locations

Station	Group	Sample Depth (feet bgs)	Copper (mg/kg)	Lead (mg/kg)	Zinc (mg/kg)
HA-02A	Reference	0.0-0.5	29.5	38.5	76
HA-02A	Reference	0.5-1.0	—	57.5	90
HA-02A	Reference	1.0-2.0	—	—	48
HA-02B	Impact	0.0-0.5	44	86.6	486
HA-02B	Impact	0.5-1.0	—	48.6	537
HA-02B	Impact	1.0-2.0	—	—	286
HA-02C	Impact	0.0-0.5	208	172	1,940
HA-02C	Impact	0.5-1.0	—	158	2,520
HA-02C	Impact	1.0-2.0	—	—	142
<i>HA-02D</i>	Impact	0.0-0.5	61.1	163	3,420
<i>HA-02D</i>	Impact	0.5-1.0	—	60.1	5,420
<i>HA-02D</i>	Impact	1.0-2.0	—	—	613
<i>HA-02E</i>	Impact	0.0-0.5	182	80.4	3,920
<i>HA-02E</i>	Impact	0.5-1.0	—	15.2	4,290
<i>HA-02E</i>	Impact	1.0-2.0	—	—	418
HA-03B	Reference	0.0-0.5	21.2	88.9	107
HA-03B	Reference	0.5-1.0	—	35.2	77
HA-03B	Reference	1.0-2.0	—	—	20
<i>HA-03E</i>	Impact	0.0-0.5	33.7	62.3	3,600
<i>HA-03E</i>	Impact	0.5-1.0	—	16.7	1,560
<i>HA-03E</i>	Impact	1.0-2.0	—	—	1,190
<i>HA-03F</i>	Reference	0.0-0.5	—	55.5	40
<i>HA-04A</i>	Reference	0.0-0.5	—	94	200
<i>HA-04D</i>	Reference	0.0-0.5	—	109	185
<i>HA-05A</i>	Impact	0.0-0.5	—	373	59
<i>HA-05E</i>	Reference	0.0-0.5	—	87.7	10
<i>HA-06D</i>	Impact	0.0-0.5	—	501	410
<i>HA-07C</i>	Reference	0.0-0.5	—	112	33
Mean All Impact Samples			106	145	1,812
Mean All Reference Samples			25	75	80
Impact/Reference, All Samples			4	2	23
Mean <0.5' Impact Samples			106	205	1,976
Mean <0.5' Reference Samples			25	84	93
Impact/Reference, <0.5' Samples			4	2	21
Maximum Concentration			208	501	5,420
Background			36	17	86
Maximum/Background			6	29	63
Lowest Ecological SL			50	50	86
Maximum/Ecological SL			4	10	63

Notes:

Invertebrate survey areas in *italics* (02D, 02E, 03E, 03F, 04A, 04D, 05A, 05E, 06D, 07C)

— = not applicable

bgs = below ground surface

COC = contaminant of concern

mg/kg = milligrams per kilogram

SL = screening level

Table 3. Toxicity Data

Source	Copper SLs (mg/kg)			Lead SLs (mg/kg)			Zinc SLs (mg/kg)		
	Plants	Soil Biota	Wildlife	Plants	Soil Biota	Wildlife	Plants	Soil Biota	Wildlife
WAC 173-340-900, Table 749-3 ^{1,2,3}	100	50	217	50	500	118	86	200	360
EPA Eco-SSLs ⁴	70	80	28	120	1,700	11	160	120	46
ORNL PRGs ⁵			370			40.5			8.5
Beyer et al., 2000 ⁶	—	—	—	—	—	530	—	—	—
Sample et al., 2019 (ED10) ⁷				—	—	75.6	—	—	—
Sample et al., 2019 (ED20) ⁸				—	—	180.6	—	—	—
NEPC, 2011				—	—	1,120	676	676	156 - 1,386

Notes:

— = not applicable

Eco-SSL = Ecological Soil Screening Level

ED = Effective dose

EPA = U.S. Environmental Protection Agency

LOAEL = Lowest Observed Adverse Effect Level

NOAEL = No Observed Adverse Effect Level

ORNL = Oak Ridge National Laboratory

PRG = Preliminary Remediation Goal

SL = screening level

¹ Plant soil screening levels in Table 749-3 are based on the ORNL 1997 *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Terrestrial Plants: 1997 Revision* (Efroymsen et al., 1997a)

² Biota soil screening levels in Table 749-3 are based on the ORNL 1997 *Toxicological Benchmarks for Potential Contaminants of Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision* (Efroymsen et al., 1997b)

³ Wildlife soil screening levels

⁴ Eco-SSLs. Copper: Avian=28 mg/kg, Mammalian=49 mg/kg. Lead: Avian=11 mg/kg, Mammalian=56 mg/kg. Zinc: Avian=46 mg/kg, Mammalian=79 mg/kg.

⁵ Copper: Lowest Avian=515 mg/kg for woodcock, Lowest Mammalian=370 mg/kg for shrew. Lead: Lowest Avian=40.5 mg/kg for woodcock, Lowest Mammalian=740 mg/kg for shrew. Zinc: Lowest Avian=8.5 mg/kg for woodcock, Lowest Mammalian=1600 mg/kg for shrew.

⁶ Lowest-Observed-Adverse-Effect-Level for waterfowl (Beyer et al., 2000)

⁷ 10th percentile effective dose (ED10), comparable to the NOAEL, for the American robin (*Turdus migratorius*). This study sought to update the Eco-SSL for lead, which is lower than background level in most areas of the U.S., using more applicable species and methodologies.

⁸ 20th percentile effective dose (ED20), comparable to the LOAEL, for the American robin (*Turdus migratorius*). This study sought to update the Eco-SSL for lead, which is lower than background level in most areas of the U.S., using more applicable species and methodologies.

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Table 4. Names of Plants Observed

Common Name	Scientific Name	Acronym
Bigleaf maple	<i>Acer macrophyllum</i>	ACMA
Devil’s club	<i>Oplopanax horridus</i>	OPHO
False lilly of the valley	<i>Maianthemum dilatatum</i>	MADI
Horsetail	<i>Equisetum spp</i>	EQSP
Piggyback plant	<i>Tolmiea menziesii</i>	TOME
Red alder	<i>Alnus rubra</i>	ALRU
Red elderberry	<i>Sambucus racemosa</i>	SARA
Redwood sorrel	<i>Oxalis oregana</i>	OXOR
Salmonberry	<i>Rubus spectabilis</i>	RUSP
Skunk cabbage	<i>Lysichiton americanus</i>	LYAM
Stinging nettle	<i>Urtica dioica</i>	URDI
Vine maple	<i>Acer circinatum</i>	ACCI
Western bracken fern	<i>Pteridium aquilinum</i>	PTAQ
Western hemlock	<i>Tsuga heterophylla</i>	TSHE
Western sword fern	<i>Polystichum munitum</i>	POMU

Table 5. Plant Ground Cover, Canopy Cover, and Community Metrics

Station	I/R	Date	G/C	Species ¹	Foliar Cover	Total Cover	Richness (S)	Shannon (H)	Simpson (D)	Simpson (RI)
04A	R	9/7/2022	G	ACCI	0.2	0.4	3	2.08	0.38	2.67
04A	R	9/7/2022	G	LYAM	0.1					
04A	R	9/7/2022	G	TOME	0.1					
04A	R	9/7/2022	C	ACCI	1	1.05	2	0.38	0.91	1.10
04A	R	9/7/2022	C	RUSP	0.05					
05A	I	9/7/2022	G	TOME	0.1	0.4	6	3.47	0.19	5.33
05A	I	9/7/2022	G	OPHO	0.1					
05A	I	9/7/2022	G	RUSP	0.05					
05A	I	9/7/2022	G	LYAM	0.05					
05A	I	9/7/2022	G	POMU	0.05					
05A	I	9/7/2022	G	PTAQ	0.05					
05A	I	9/7/2022	C	ALRU	1	1.5	3	1.72	0.50	1.99
05A	I	9/7/2022	C	OPHO	0.3					
05A	I	9/7/2022	C	RUSP	0.2					
06D	I	9/7/2022	G	LYAM	0.05	0.2	4	2.77	0.25	4.00
06D	I	9/7/2022	G	POMU	0.05					
06D	I	9/7/2022	G	PTAQ	0.05					
06D	I	9/7/2022	G	RUSP	0.05					
06D	I	9/7/2022	C	ACCI	1	1	1	0.00	1.00	1.00
07C	R	9/8/2022	G	TOME	0.4	0.5	3	1.28	0.66	1.52
07C	R	9/8/2022	G	ACCI	0.05					
07C	R	9/8/2022	G	LYAM	0.05					
07C	R	9/8/2022	C	ACCI	0.7	0.8	2	0.75	0.78	1.28
07C	R	9/8/2022	C	RUSP	0.1					
02D	I	9/8/2022	G	TSHE	0.2	0.4	4	2.43	0.34	2.91
02D	I	9/8/2022	G	PTAQ	0.1					
02D	I	9/8/2022	G	LYAM	0.05					
02D	I	9/8/2022	G	EQSP	0.05					
02D	I	9/8/2022	C	TSHE	0.9	1.5	3	1.71	0.48	2.10
02D	I	9/8/2022	C	ALRU	0.5					
02D	I	9/8/2022	C	ACCI	0.1					
02E	I	9/8/2022	G	EQSP	0.4	0.6	4	1.97	0.49	2.06
02E	I	9/8/2022	G	LYAM	0.1					
02E	I	9/8/2022	G	RUSP	0.05					
02E	I	9/8/2022	G	URDI	0.05					
02E	I	9/8/2022	C	ALRU	0.9	1.3	4	1.69	0.54	1.87
02E	I	9/8/2022	C	ACMA	0.3					
02E	I	9/8/2022	C	SARA	0.05					
02E	I	9/8/2022	C	RUSP	0.05					
03E	I	9/8/2022	G	MADI	0.1	0.1	1	0.00	1.00	1.00
03E	I	9/8/2022	C	TSHE	1	1.8	3	1.96	0.41	2.42
03E	I	9/8/2022	C	ALRU	0.5					
03E	I	9/8/2022	C	ACCI	0.3					
04D	R	9/8/2022	G	LYAM	0.3	0.4	2	1.12	0.63	1.60
04D	R	9/8/2022	G	MADI	0.1					
04D	R	9/8/2022	C	TSHE	0.9	1.7	2	1.38	0.50	1.99

Table 5. Plant Ground Cover, Canopy Cover, and Community Metrics

Station	I/R	Date	G/C	Species ¹	Foliar Cover	Total Cover	Richness (S)	Shannon (H)	Simpson (D)	Simpson (RI)
04D	R	9/8/2022	C	ALRU	0.8					
05E	R	9/8/2022	G	PTAQ	0.3	0.6	3	2.02	0.39	2.57
05E	R	9/8/2022	G	OXOR	0.2					
05E	R	9/8/2022	G	RUSP	0.1					
05E	R	9/8/2022	C	ALRU	0.5	0.8	3	1.80	0.47	2.13
05E	R	9/8/2022	C	ACMA	0.2					
05E	R	9/8/2022	C	ACCI	0.1					
03F	R	9/8/2022	G	ACCI	0.1	0.1	1	0.00	1.00	1.00
03F	R	9/8/2022	C	ACCI	1	2	2	1.39	0.50	2.00
03F	R	9/8/2022	C	ALRU	1					
02C	I	9/8/2022	G	PTAQ	0.1	0.2	3	2.08	0.38	2.67
02C	I	9/8/2022	G	TOME	0.05					
02C	I	9/8/2022	G	EQSP	0.05					
02C	I	9/8/2022	C	ALRU	0.6	0.7	3	1.02	0.74	1.34
02C	I	9/8/2022	C	ACCI	0.05					
02C	I	9/8/2022	C	TSHE	0.05					
02B	I	9/8/2022	G	EQSP	0.8	0.85	2	0.45	0.89	1.12
02B	I	9/8/2022	G	URDI	0.05					
02B	I	9/8/2022	C	ALRU	0.7	0.8	2	0.75	0.78	1.28
02B	I	9/8/2022	C	RUSP	0.1					
03B	R	9/8/2022	G	ACCI	0.2	0.3	2	1.27	0.56	1.80
03B	R	9/8/2022	G	RUSP	0.1					
03B	R	9/8/2022	C	ACCI	0.9	1.8	2	1.39	0.50	2.00
03B	R	9/8/2022	C	ALRU	0.9					
02A	R	9/8/2022	G	LYAM	0.1	0.25	4	2.66	0.28	3.57
02A	R	9/8/2022	G	TOME	0.05					
02A	R	9/8/2022	G	POMU	0.05					
02A	R	9/8/2022	G	RUSP	0.05					
02A	R	9/8/2022	C	TSHE	1	1.6	3	1.80	0.47	2.13
02A	R	9/8/2022	C	ALRU	0.4					
02A	R	9/8/2022	C	ACCI	0.2					

Notes:

¹ See Table 4 for the definitions of these acronyms.

C = Canopy Cover

G= Ground Cover

I = Impacted Area

R = Reference Area

Table 6. Plant Community Indices: Mean, Standard Deviation, Parametric and Nonparametric ANOVA

	Mean	SD	One-way ANOVA		Kruskal Wallis Test	
			F	P-value	H Stat	P-value
Ground Community Richness (S)						
Impact	3.43	1.62	1.44	0.25	1.32	0.25
Reference	2.57	0.98				
Canopy Community Richness (S)						
Impact	2.71	0.95	1.13	0.31	1.32	0.25
Reference	2.29	0.49				
Ground Community Shannon Index (H)						
Impact	1.88	1.24	0.46	0.51	0.69	0.41
Reference	1.49	0.86				
Canopy Community Shannon Index (H)						
Impact	1.26	0.71	0.00	0.99	0.02	0.90
Reference	1.27	0.53				
Ground Community Simpson Index (D)						
Impact	0.51	0.32	0.11	0.74	0.69	0.41
Reference	0.56	0.24				
Canopy Community Simpson Index (D)						
Impact	0.64	0.21	0.19	0.67	0.41	0.52
Reference	0.59	0.18				
Ground Community Simpson Reciprocal Index (RI)						
Impact	2.73	1.55	0.86	0.37	0.69	0.41
Reference	2.10	0.88				
Canopy Community Simpson Reciprocal Index (RI)						
Impact	1.72	0.51	0.13	0.73	0.41	0.52
Reference	1.81	0.43				

Notes:
ANOVA = analysis of variance
SD = Standard Deviation

Table 7. Regression of Plant Community Metrics and Worm Abundance on Lead and Zinc Concentrations in Soil

Independent Variable	Dependent Variable	Number (n)	Intercept	Slope	F-value	P-value
Canopy Plant Community						
Lead	S	14	2.79	-2.00E-03	1.68	0.22
Lead	H	14	1.56	-1.99E-03	2.85	0.12
Lead	D	14	0.52	6.61E-04	3.19	0.10
Lead	RI	14	1.96	-1.38E-03	2.27	0.16
Zinc	S	14	2.17	3.17E-04	7.77	0.02 *
Zinc	H	14	1.12	1.47E-04	1.90	0.19
Zinc	D	14	0.65	-3.37E-05	0.92	0.36
Zinc	RI	14	1.67	8.81E-05	1.10	0.32
Ground Plant Community						
Lead	S	14	2.11	6.14E-03	6.57	0.02 *
Lead	H	14	1.00	4.78E-03	6.77	0.02 *
Lead	D	14	0.69	-1.12E-03	4.94	0.05 *
Lead	RI	14	1.43	6.83E-03	12.68	0.004 *
Zinc	S	14	3.00	-1.87E-06	0.00	0.99
Zinc	H	14	1.75	-6.13E-05	0.09	0.76
Zinc	D	14	0.51	2.11E-05	0.17	0.69
Zinc	RI	14	2.57	-1.47E-04	0.38	0.55
Worm Abundance						
Lead	Total #	50	3.88	3.72E-04	0.01	0.91
Zinc	Total #	50	3.55	3.32E-04	1.26	0.27

Notes:
* P-value less than 0.05
D = Simpson Index
H = Shannon Index
RI = Reciprocal Simpson Index
S = Species Richness

Table 8. Earthworm and Pot Worm Abundance

Station	Replicate	Impacted or Reference Cell (I/R)	Date	Earthworm	Pot worm	Total Worms
04A	1	R	9/7/2022	3	0	3
04A	2	R	9/7/2022	6	0	6
04A	3	R	9/7/2022	7	0	7
04A	4	R	9/7/2022	6	0	6
04A	5	R	9/7/2022	6	0	6
05A	1	I	9/7/2022	3	0	3
05A	2	I	9/7/2022	2	0	2
05A	3	I	9/7/2022	4	0	4
05A	4	I	9/7/2022	9	0	9
05A	5	I	9/7/2022	9	0	9
06D	1	I	9/7/2022	6	0	6
06D	2	I	9/7/2022	6	0	6
06D	3	I	9/7/2022	2	0	2
06D	4	I	9/7/2022	2	0	2
06D	5	I	9/7/2022	3	0	3
07C	1	R	9/8/2022	7	0	7
07C	2	R	9/8/2022	0	0	0
07C	3	R	9/8/2022	5	0	5
07C	4	R	9/8/2022	6	0	6
07C	5	R	9/8/2022	7	0	7
02D	1	I	9/8/2022	2	0	2
02D	2	I	9/8/2022	2	0	2
02D	3	I	9/8/2022	0	0	0
02D	4	I	9/8/2022	0	0	0
02D	5	I	9/8/2022	0	0	0
02E	1	I	9/8/2022	1	7	8
02E	2	I	9/8/2022	2	3	5
02E	3	I	9/8/2022	3	8	11
02E	4	I	9/8/2022	2	3	5
02E	5	I	9/8/2022	2	3	5
03E	1	I	9/8/2022	10	2	12
03E	2	I	9/8/2022	6	4	10
03E	3	I	9/8/2022	7	0	7
03E	4	I	9/8/2022	2	0	2
03E	5	I	9/8/2022	0	0	0
04D	1	R	9/8/2022	1	1	2
04D	2	R	9/8/2022	1	1	2
04D	3	R	9/8/2022	3	4	7
04D	4	R	9/8/2022	0	2	2
04D	5	R	9/8/2022	0	0	0
05E	1	R	9/8/2022	0	0	0
05E	2	R	9/8/2022	0	0	0
05E	3	R	9/8/2022	0	0	0
05E	4	R	9/8/2022	0	0	0
05E	5	R	9/8/2022	0	0	0
03F	1	R	9/8/2022	4	1	5
03F	2	R	9/8/2022	1	0	1
03F	3	R	9/8/2022	0	1	1
03F	4	R	9/8/2022	8	1	9
03F	5	R	9/8/2022	0	0	0

Notes:

I = Impacted Area

R = Reference Area

Table 9. Worm Abundance: Mean, Standard Deviation, Nonparametric and Parametric ANOVA

	Mean	SD	One-way ANOVA		Kruskal Wallis Test	
			F	P-value	H Stat	P-value
Earthworm Abundance						
Impact	3.40	2.96	0.87	0.35	0.44	0.51
Reference	2.84	3.00				
Total Worm Abundance						
Impact	4.60	3.63	1.57	0.21	1.93	0.17
Reference	3.28	3.06				

Notes:
ANOVA = analysis of variance
SD = Standard Deviation

Table 10. Depth-Adjusted Lead and Zinc Concentrations in Soil and Exposure Point Concentrations

Location	Lead (mg/kg)	Zinc (mg/kg)
DU-01	6,000	132
DU-02	197	436
HA-01-Comp	129	3,615
HA-01A	158	403
HA-01B	167	1,834
HA-01C	274	5,688
HA-01D	309	13,346
HA-01E	17	109
HA-01F	27	35
HA-01Aa	13	33
HA-01Ab	21	38
HA-X	679	104
HA-02-Comp	59	2,547
HA-02A	39	76
HA-02B	85	489
HA-02C	171	1,969
HA-02D	158	3,520
HA-02E	77	3,939
HA-02F	26	40
HA-02G	8	34
HA-02Ab	10	32
HA-02Aa	6	32
HA-03-Comp	61	409
HA-03A	248	377
HA-03B	86	105
HA-03C	264	865
HA-03D	136	2,348
HA-03E	60	3,498
HA-03F	56	40
HA-03G	12	32
HA-03Aa	80	30
HA-03Ab	53	11
HA-04-Comp	244	567
HA-04A	94	200
HA-04B	199	26
HA-04C	169	204
HA-04D	109	185
HA-04E	52	1,400
HA-04F	10	19
HA-04G	10	25
HA-04Aa	8	38
HA-04Ab	31	30
HA-05-Comp	113	87
HA-05A	373	59
HA-05B	120	44
HA-05C	179	79
HA-05D	55	723
HA-05E	88	10
HA-05F	32	733
HA-05G	16	66
HA-05Aa	163	26
HA-05Ab	102	16
HA-06A	176	36
HA-06B	194	20
HA-06C	514	61
HA-06D	501	410
HA-06E	39	291
HA-06F	33	20
HA-06G	50	19
HA-06H	17	25
HA-06I	48	1,990
HA-07A	67	39
HA-07B	143	46
HA-07C	112	33
HA-07D	223	192
HA-07E	197	548
HA-07F	48	17
HA-07G	9	19
HA-07H	57	25
HA-07I	40	1,910
UCL 95	224.6	1,799

Notes:
mg/kg = milligrams per kilogram
UCL = Upper Confidence Limit

Table 11. Wildlife Camera Observations

Camera	Video	Date	Time	Comment
WC1	Camera is oriented towards a game trail and an alder tree supporting 2 suet-filled bait baskets.			
WC1	3	9/10/2022	12:12 PM	No apparent wildlife. Wind-blown vegetation may have triggered camera.
WC1	4	9/10/2022	2:43 PM	No apparent wildlife. Wind-blown vegetation may have triggered camera.
WC1	5	9/10/2022	3:47 PM	No apparent wildlife.
WC1	6	9/18/2022	12:03 PM	Steller's jay (<i>Cyanocitta stelleri</i>) feeding on suet in a bait basket. This jay also visited the ground.
WC1	7	9/23/2022	6:43 AM	Three raccoons (<i>Procyon lotor</i>) moving on the ground beneath the alder tree with the bait. The uppermost bait basket appears to be half full of suet.
WC1	8	9/27/2022	8:46 PM	Blacktail deer (<i>Odocoileus hemionus</i>) doe. One of the bait baskets is gone from the tree.
WC2	Camera is oriented towards a game trail.			
WC2	3	9/27/2022	8:41 PM	Blacktail deer doe appears to be on a game trail. It could be the same animal observed 5 minutes later on WC1 (see above).
WC2	4	10/2/2022	8:19 AM	Adult coyote (<i>Canis latrans</i>) on game trail. It sounds as if the coyote breaks branches on the ground beneath the camera.
WC3	Camera is oriented towards a game trail surrounded by ferns and Equisetum.			
WC3	2	9/13/2022	11:10 AM	It is unclear what triggered the camera. A hummingbird or large insect flies through the field of view at the 7-second mark.
WC3	3	10/2/2022	2:33 PM	No apparent wildlife. Wind-blown vegetation may have triggered camera.
WC3	4	10/3/2022	9:01 PM	Black bear (<i>Ursus americanus</i>) appears to be foraging near a game trail, and much of body is obscured by vegetation.
WC3	5	10/3/2022	2:09 PM	No apparent wildlife. Camera may have been triggered by falling leaves or wind-blown vegetation.
WC4	Camera is facing a tree with a suet-filled bait basket near a small creek.			
WC4	1	9/9/2022	10:12 PM	No apparent wildlife. However, debris can be seen falling and crunching can be heard at the 16-second mark. An animal may be present in the tree that is supporting the camera.
WC4	2	9/10/2022	10:29 AM	No apparent wildlife. It appears to be windy with considerable falling debris. After wind subsides there appear to be many flying insects.
WC4	3	9/10/2022	12:36 PM	It appears that a Cooper's hawk (<i>Accipiter cooperii</i>) is perched on a branch. However, the image is blurry and the bird could be a sharp-shinned hawk (<i>Accipiter striatus</i>). A Douglas squirrel (<i>Tamiasciurus douglasii</i>) can be heard calling.
WC4	4	9/10/2022	12:47 PM	No apparent wildlife.
WC4	5	9/11/2022	10:55 AM	Two Douglas squirrels are moving over the tree with the bait basket.
WC4	6	9/18/2022	3:14 PM	Steller's jay appears to be foraging on the ground. Bait basket is no longer present on tree.
WC4	7	9/18/2022	4:39 PM	Steller's jay appears to be foraging in the same location as in previous video. The bird can be seen eating something white. It is possible that the jay is eating suet from the bait basket that is no longer on the tree.
WC4	8	9/21/2022	4:00 PM	Two raccoons, one in tree and another in creek. The raccoon in the creek appears to wash and then eat something. At the end of the video something can be heard in the tree that supports the camera.
WC4	9	9/21/2022	4:21 PM	Raccoon in tree and another beneath a log on the right. A third raccoon appears from the left at the 30-second mark. The raccoon on the right appears to be dragging something out of view at the 42-second mark.
WC4	10	10/1/2022	7:32 AM	Three Douglas squirrels moving over a tree.

ATTACHMENT A

PHOTOGRAPHS OF GROUND AND CANOPY PLANT COVER

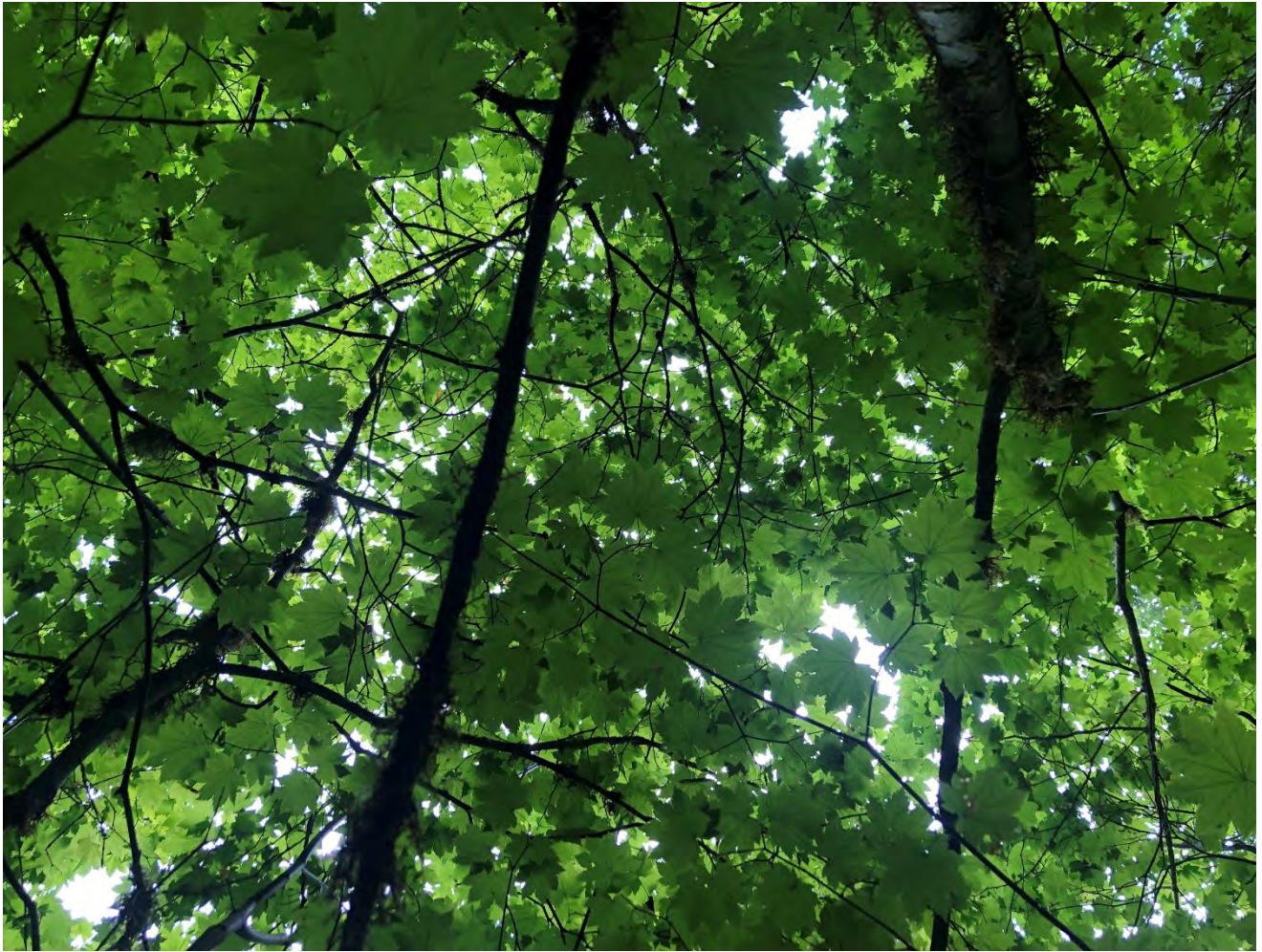


Photo 1: Canopy Cover at 04A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 2: Ground Cover at 04A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 3: Ground Cover at 04A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 4: Canopy Cover at 05A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 5: Ground Cover at 05A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 6: Ground Cover at 05A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 7: Canopy Cover at 06D



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 8: Ground Cover at 06D



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 9: Ground Cover at 06D



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 10: Canopy Cover at 02A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 11: Ground Cover at 02A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 12: Ground Cover at 02A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 13: Ground Cover at 02B



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 14: Ground Cover at 02B



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 15: Canopy Cover at 02C



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 16: Ground Cover at 02C



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 17: Ground Cover at 02C



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 18: Canopy Cover at 02D



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 19: Ground Cover at 02D



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 20: Ground Cover at 02D



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 21: Canopy Cover at 02E



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Photo 22: Ground Cover at 02E



SITE PHOTOGRAPHS
September 8, 2022

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Photo 23: Ground Cover at 02E



SITE PHOTOGRAPHS
September 8, 2022

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Photo 24: Canopy Cover at 03B



SITE PHOTOGRAPHS
September 8, 2022

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Photo 25: Ground Cover at 03B



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 26: Ground Cover at 03B



SITE PHOTOGRAPHS
September 8, 2022

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Photo 27: Ground Cover at 03E



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September 8, 2022

Former Eatonville Landfill

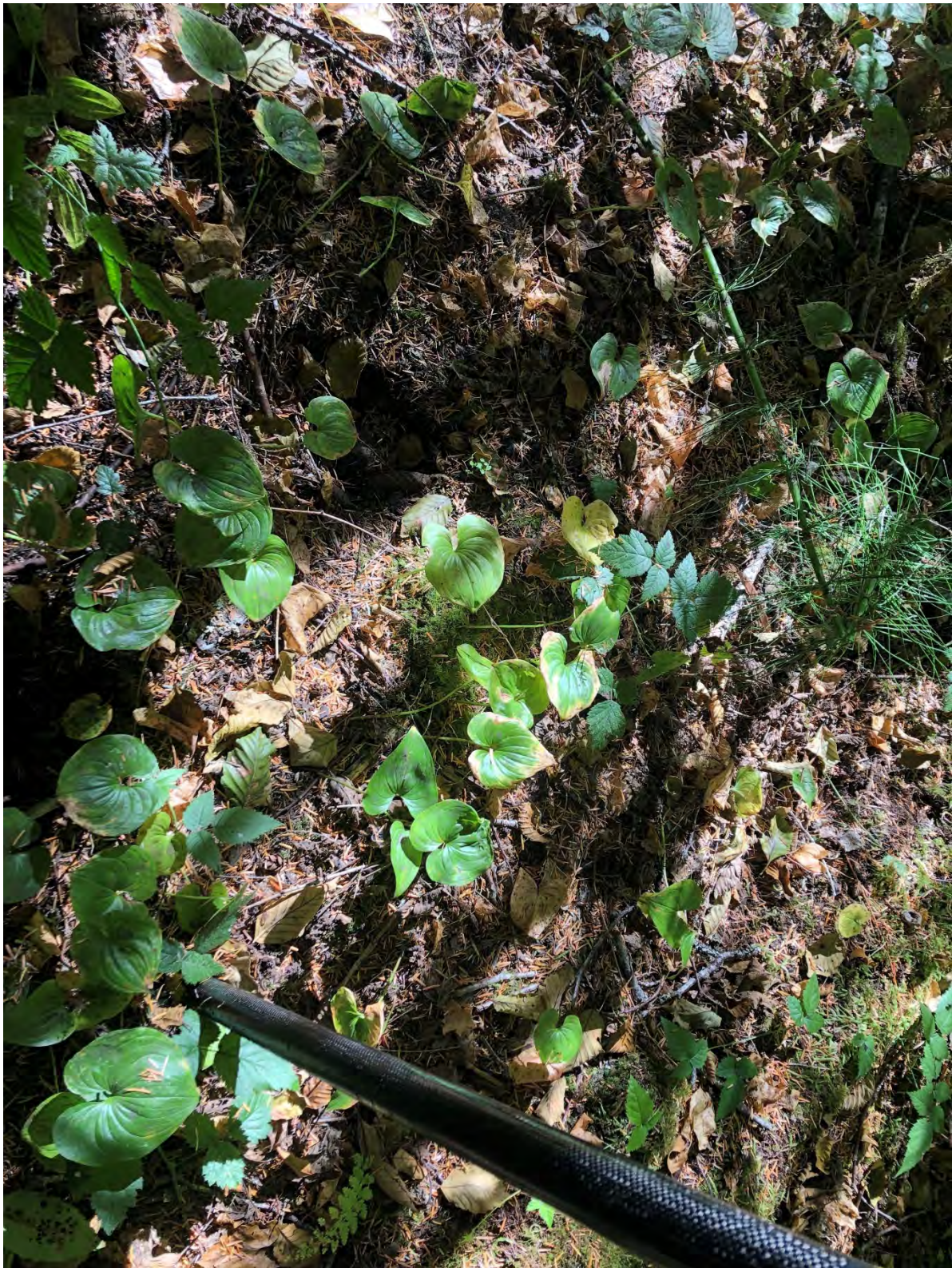


Photo 28: Ground Cover at 03E



SITE PHOTOGRAPHS
September 8, 2022

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Photo 29: Canopy Cover at 03F



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Photo 30: Ground Cover at 03F



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Photo 31: Ground Cover at 03F



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Photo 32: Canopy Cover at 04D



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Photo 33: Ground Cover at 04D



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Photo 34: Ground Cover at 04D



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Photo 35: Canopy Cover at 05E



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Photo 36: Ground Cover at 05E



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Photo 37: Ground Cover at 05E



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Photo 38: Canopy Cover at 07C



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Photo 39: Ground Cover at 07C



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September 8, 2022

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Photo 40: Ground Cover at 07C



SITE PHOTOGRAPHS
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ATTACHMENT B

PLANT COMMUNITY STATISTICS – PROUCL OUTPUT

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Canopy Cover Goodness-of-fit (GOF) Tests												
2													
3				Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects									
4	User Selected Options												
5	Date/Time of Computation			ProUCL 5.19/29/2022 3:26:28 PM									
6	From File			Canopy cover.xls									
7	Full Precision			OFF									
8	Confidence Coefficient			0.95									
9													
10													
11	Richness (S) (I)												
12													
13	Raw Statistics												
14	Number of Valid Observations				7								
15	Number of Distinct Observations				4								
16	Minimum				1								
17	Maximum				4								
18	Mean of Raw Data				2.714								
19	Standard Deviation of Raw Data				0.951								
20	Khat				6.948								
21	Theta hat				0.391								
22	Kstar				4.065								
23	Theta star				0.668								
24	Mean of Log Transformed Data				0.925								
25	Standard Deviation of Log Transformed Data				0.455								
26													
27	Normal GOF Test Results												
28													
29	Correlation Coefficient R				0.92								
30	Shapiro Wilk Test Statistic				0.87								
31	Shapiro Wilk Critical (0.05) Value				0.803								
32	Approximate Shapiro Wilk P Value				0.12								
33	Lilliefors Test Statistic				0.332								
34	Lilliefors Critical (0.05) Value				0.304								
35	Data appear Approximate Normal at (0.05) Significance Level												
36													
37	Gamma GOF Test Results												
38													
39	Correlation Coefficient R				0.88								
40	A-D Test Statistic				0.778								
41	A-D Critical (0.05) Value				0.709								
42	K-S Test Statistic				0.368								
43	K-S Critical(0.05) Value				0.313								
44	Data not Gamma Distributed at (0.05) Significance Level												
45													
46	Lognormal GOF Test Results												
47													
48	Correlation Coefficient R				0.872								
49	Shapiro Wilk Test Statistic				0.784								
50	Shapiro Wilk Critical (0.05) Value				0.803								
51	Approximate Shapiro Wilk P Value				0.0161								
52	Lilliefors Test Statistic				0.363								

	A	B	C	D	E	F	G	H	I	J	K	L	M
53	Lilliefors Critical (0.05) Value					0.304							
54	Data not Lognormal at (0.05) Significance Level												
55													
56	Richness (S) (r)												
57													
58	Raw Statistics												
59	Number of Valid Observations					7							
60	Number of Distinct Observations					2							
61	Minimum					2							
62	Maximum					3							
63	Mean of Raw Data					2.286							
64	Standard Deviation of Raw Data					0.488							
65	Khat					28.44							
66	Theta hat					0.0804							
67	Kstar					16.35							
68	Theta star					0.14							
69	Mean of Log Transformed Data					0.809							
70	Standard Deviation of Log Transformed Data					0.198							
71													
72	Normal GOF Test Results												
73													
74	Correlation Coefficient R					0.785							
75	Shapiro Wilk Test Statistic					0.601							
76	Shapiro Wilk Critical (0.05) Value					0.803							
77	Approximate Shapiro Wilk P Value					4.2492E-4							
78	Lilliefors Test Statistic					0.435							
79	Lilliefors Critical (0.05) Value					0.304							
80	Data not Normal at (0.05) Significance Level												
81													
82	Gamma GOF Test Results												
83													
84	Correlation Coefficient R					0.812							
85	A-D Test Statistic					1.569							
86	A-D Critical (0.05) Value					0.707							
87	K-S Test Statistic					0.451							
88	K-S Critical(0.05) Value					0.311							
89	Data not Gamma Distributed at (0.05) Significance Level												
90													
91	Lognormal GOF Test Results												
92													
93	Correlation Coefficient R					0.785							
94	Shapiro Wilk Test Statistic					0.601							
95	Shapiro Wilk Critical (0.05) Value					0.803							
96	Approximate Shapiro Wilk P Value					4.2492E-4							
97	Lilliefors Test Statistic					0.435							
98	Lilliefors Critical (0.05) Value					0.304							
99	Data not Lognormal at (0.05) Significance Level												
100													
101	Non-parametric GOF Test Results												
102													
103	Data do not follow a discernible distribution at (0.05) Level of Significance												
104													

	A	B	C	D	E	F	G	H	I	J	K	L	M
105	Shannon (H) (i)												
106													
107	Raw Statistics												
108	Number of Valid Observations					7							
109	Number of Distinct Observations					7							
110	Minimum					0							
111	Maximum					1.962							
112	Mean of Raw Data					1.264							
113	Standard Deviation of Raw Data					0.706							
114	Data contains values <= 0												
115	Data not gamma or lognormal												
116													
117	Normal GOF Test Results												
118													
119	Correlation Coefficient R					0.934							
120	Shapiro Wilk Test Statistic					0.87							
121	Shapiro Wilk Critical (0.05) Value					0.803							
122	Approximate Shapiro Wilk P Value					0.199							
123	Lilliefors Test Statistic					0.297							
124	Lilliefors Critical (0.05) Value					0.304							
125	Data appear Normal at (0.05) Significance Level												
126													
127	Shannon (H) (r)												
128													
129	Raw Statistics												
130	Number of Valid Observations					7							
131	Number of Distinct Observations					5							
132	Minimum					0.383							
133	Maximum					1.801							
134	Mean of Raw Data					1.27							
135	Standard Deviation of Raw Data					0.525							
136	Khat					4.737							
137	Theta hat					0.268							
138	Kstar					2.802							
139	Theta star					0.453							
140	Mean of Log Transformed Data					0.13							
141	Standard Deviation of Log Transformed Data					0.562							
142													
143	Normal GOF Test Results												
144													
145	Correlation Coefficient R					0.937							
146	Shapiro Wilk Test Statistic					0.871							
147	Shapiro Wilk Critical (0.05) Value					0.803							
148	Approximate Shapiro Wilk P Value					0.225							
149	Lilliefors Test Statistic					0.299							
150	Lilliefors Critical (0.05) Value					0.304							
151	Data appear Normal at (0.05) Significance Level												
152													
153	Gamma GOF Test Results												
154													
155	Correlation Coefficient R					0.872							
156	A-D Test Statistic					0.663							

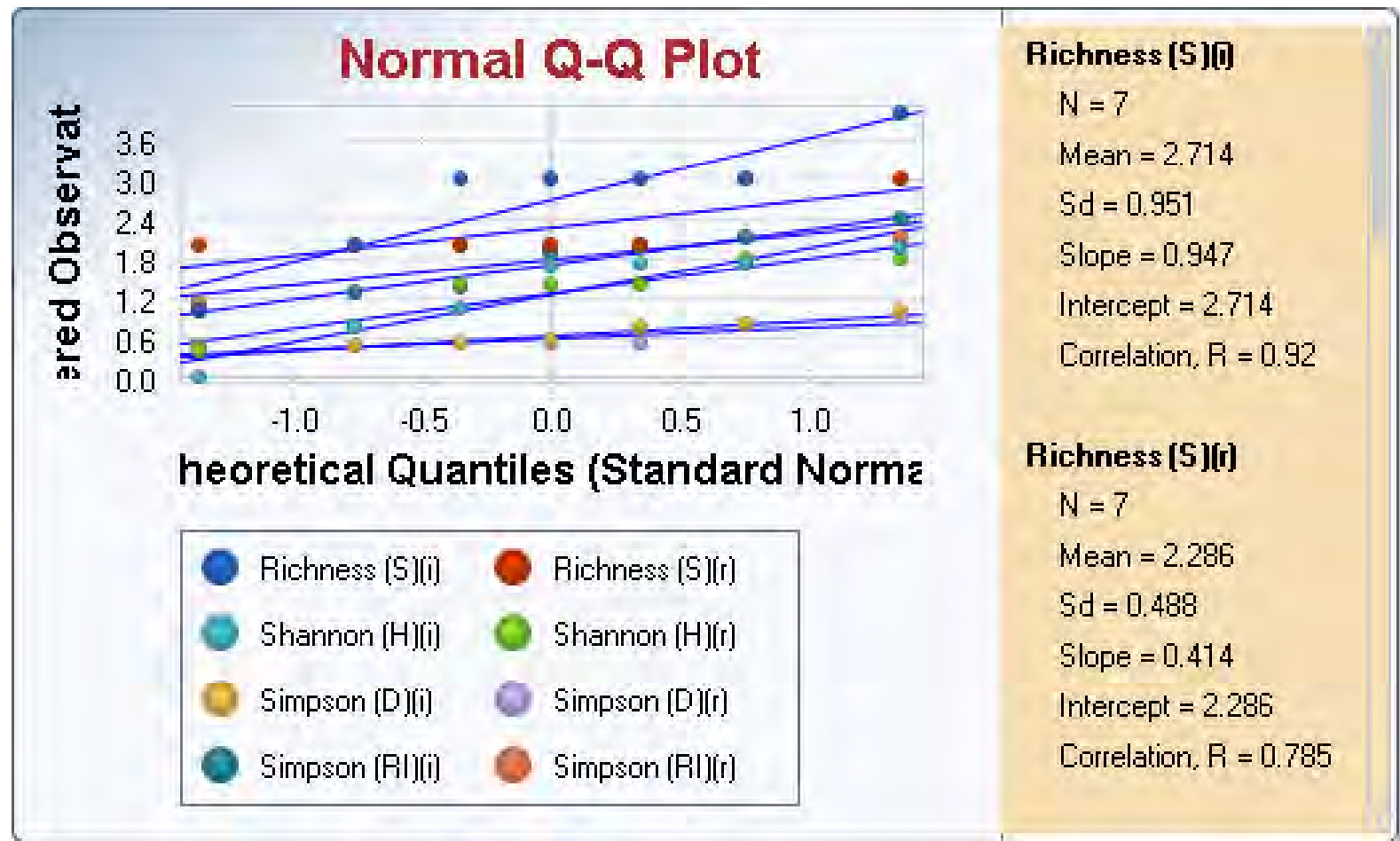
	A	B	C	D	E	F	G	H	I	J	K	L	M
157	A-D Critical (0.05) Value					0.71							
158	K-S Test Statistic					0.347							
159	K-S Critical(0.05) Value					0.313							
160	Data follow Appr. Gamma Distribution at (0.05) Significance Level												
161													
162	Lognormal GOF Test Results												
163													
164	Correlation Coefficient R					0.891							
165	Shapiro Wilk Test Statistic					0.798							
166	Shapiro Wilk Critical (0.05) Value					0.803							
167	Approximate Shapiro Wilk P Value					0.0351							
168	Lilliefors Test Statistic					0.349							
169	Lilliefors Critical (0.05) Value					0.304							
170	Data not Lognormal at (0.05) Significance Level												
171													
172	Simpson (D) (i)												
173													
174	Raw Statistics												
175	Number of Valid Observations					7							
176	Number of Distinct Observations					7							
177	Minimum					0.414							
178	Maximum					1							
179	Mean of Raw Data					0.636							
180	Standard Deviation of Raw Data					0.212							
181	Khat					11.29							
182	Theta hat					0.0563							
183	Kstar					6.548							
184	Theta star					0.0971							
185	Mean of Log Transformed Data					-0.497							
186	Standard Deviation of Log Transformed Data					0.32							
187													
188	Normal GOF Test Results												
189													
190	Correlation Coefficient R					0.953							
191	Shapiro Wilk Test Statistic					0.902							
192	Shapiro Wilk Critical (0.05) Value					0.803							
193	Approximate Shapiro Wilk P Value					0.394							
194	Lilliefors Test Statistic					0.254							
195	Lilliefors Critical (0.05) Value					0.304							
196	Data appear Normal at (0.05) Significance Level												
197													
198	Gamma GOF Test Results												
199													
200	Correlation Coefficient R					0.975							
201	A-D Test Statistic					0.369							
202	A-D Critical (0.05) Value					0.708							
203	K-S Test Statistic					0.249							
204	K-S Critical(0.05) Value					0.312							
205	Data appear Gamma Distributed at (0.05) Significance Level												
206													
207	Lognormal GOF Test Results												
208													

	A	B	C	D	E	F	G	H	I	J	K	L	M
209	Correlation Coefficient R					0.971							
210	Shapiro Wilk Test Statistic					0.932							
211	Shapiro Wilk Critical (0.05) Value					0.803							
212	Approximate Shapiro Wilk P Value					0.672							
213	Lilliefors Test Statistic					0.226							
214	Lilliefors Critical (0.05) Value					0.304							
215	Data appear Lognormal at (0.05) Significance Level												
216													
217	Simpson (D) (r)												
218													
219	Raw Statistics												
220	Number of Valid Observations					7							
221	Number of Distinct Observations					5							
222	Minimum					0.469							
223	Maximum					0.909							
224	Mean of Raw Data					0.59							
225	Standard Deviation of Raw Data					0.179							
226	Khat					14.78							
227	Theta hat					0.0399							
228	Kstar					8.54							
229	Theta star					0.0691							
230	Mean of Log Transformed Data					-0.562							
231	Standard Deviation of Log Transformed Data					0.272							
232													
233	Normal GOF Test Results												
234													
235	Correlation Coefficient R					0.846							
236	Shapiro Wilk Test Statistic					0.712							
237	Shapiro Wilk Critical (0.05) Value					0.803							
238	Approximate Shapiro Wilk P Value					0.00529							
239	Lilliefors Test Statistic					0.403							
240	Lilliefors Critical (0.05) Value					0.304							
241	Data not Normal at (0.05) Significance Level												
242													
243	Gamma GOF Test Results												
244													
245	Correlation Coefficient R					0.889							
246	A-D Test Statistic					1.085							
247	A-D Critical (0.05) Value					0.708							
248	K-S Test Statistic					0.412							
249	K-S Critical(0.05) Value					0.312							
250	Data not Gamma Distributed at (0.05) Significance Level												
251													
252	Lognormal GOF Test Results												
253													
254	Correlation Coefficient R					0.857							
255	Shapiro Wilk Test Statistic					0.726							
256	Shapiro Wilk Critical (0.05) Value					0.803							
257	Approximate Shapiro Wilk P Value					0.00825							
258	Lilliefors Test Statistic					0.395							
259	Lilliefors Critical (0.05) Value					0.304							
260	Data not Lognormal at (0.05) Significance Level												

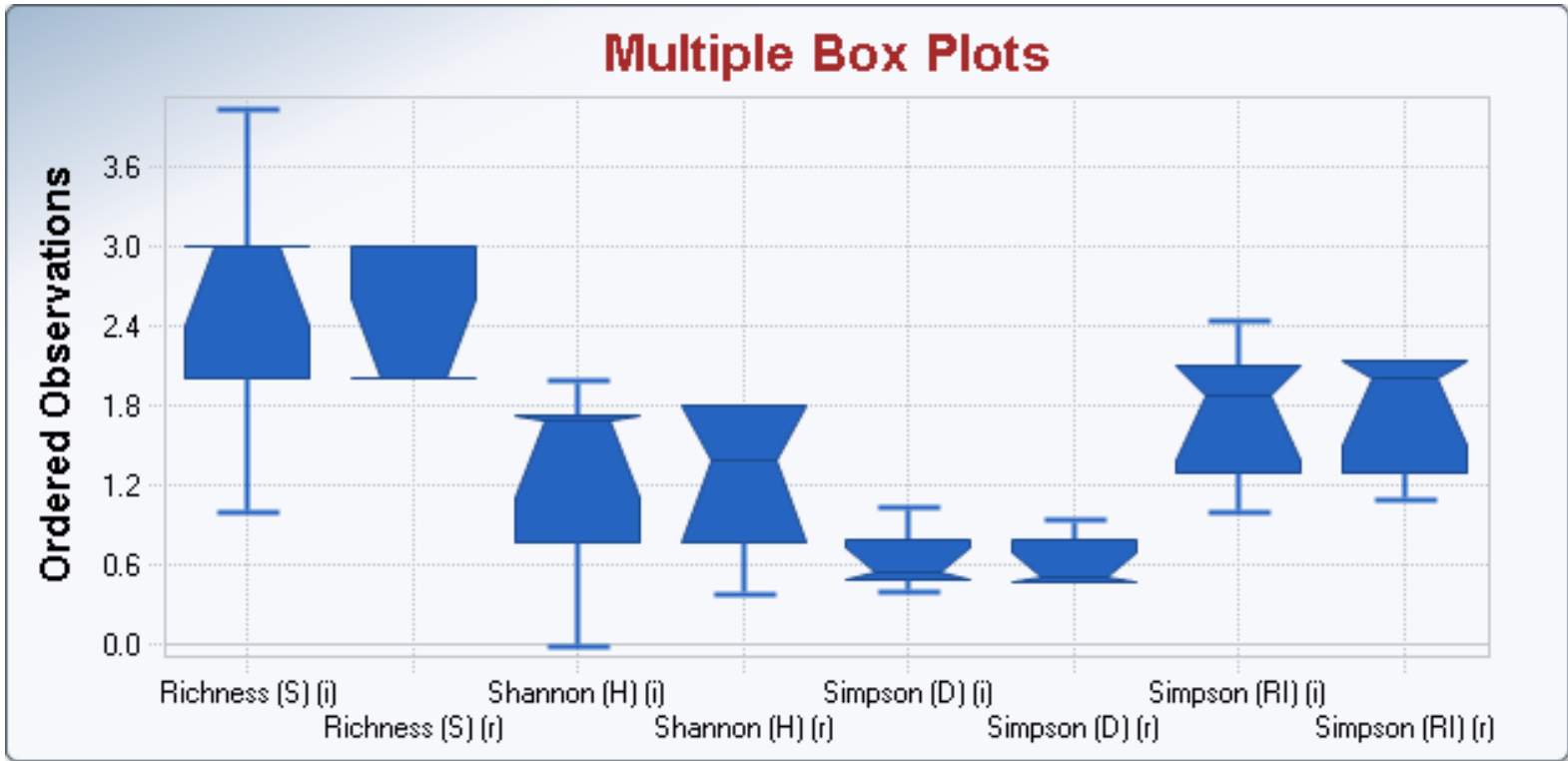
	A	B	C	D	E	F	G	H	I	J	K	L	M
261													
262	Non-parametric GOF Test Results												
263													
264	Data do not follow a discernible distribution at (0.05) Level of Significance												
265													
266	Simpson (RI) (i)												
267													
268	Raw Statistics												
269	Number of Valid Observations					7							
270	Number of Distinct Observations					7							
271	Minimum					1							
272	Maximum					2.418							
273	Mean of Raw Data					1.715							
274	Standard Deviation of Raw Data					0.514							
275	Khat					12.1							
276	Theta hat					0.142							
277	Kstar					7.011							
278	Theta star					0.245							
279	Mean of Log Transformed Data					0.497							
280	Standard Deviation of Log Transformed Data					0.32							
281													
282	Normal GOF Test Results												
283													
284	Correlation Coefficient R					0.979							
285	Shapiro Wilk Test Statistic					0.946							
286	Shapiro Wilk Critical (0.05) Value					0.803							
287	Approximate Shapiro Wilk P Value					0.81							
288	Lilliefors Test Statistic					0.194							
289	Lilliefors Critical (0.05) Value					0.304							
290	Data appear Normal at (0.05) Significance Level												
291													
292	Gamma GOF Test Results												
293													
294	Correlation Coefficient R					0.968							
295	A-D Test Statistic					0.33							
296	A-D Critical (0.05) Value					0.708							
297	K-S Test Statistic					0.226							
298	K-S Critical(0.05) Value					0.312							
299	Data appear Gamma Distributed at (0.05) Significance Level												
300													
301	Lognormal GOF Test Results												
302													
303	Correlation Coefficient R					0.971							
304	Shapiro Wilk Test Statistic					0.932							
305	Shapiro Wilk Critical (0.05) Value					0.803							
306	Approximate Shapiro Wilk P Value					0.672							
307	Lilliefors Test Statistic					0.226							
308	Lilliefors Critical (0.05) Value					0.304							
309	Data appear Lognormal at (0.05) Significance Level												
310													
311	Simpson (RI) (r)												
312													

	A	B	C	D	E	F	G	H	I	J	K	L	M
313	Raw Statistics												
314	Number of Valid Observations					7							
315	Number of Distinct Observations					5							
316	Minimum					1.1							
317	Maximum					2.133							
318	Mean of Raw Data					1.806							
319	Standard Deviation of Raw Data					0.428							
320	Khat					17.4							
321	Theta hat					0.104							
322	Kstar					10.04							
323	Theta star					0.18							
324	Mean of Log Transformed Data					0.562							
325	Standard Deviation of Log Transformed Data					0.272							
326													
327	Normal GOF Test Results												
328													
329	Correlation Coefficient R					0.868							
330	Shapiro Wilk Test Statistic					0.743							
331	Shapiro Wilk Critical (0.05) Value					0.803							
332	Approximate Shapiro Wilk P Value					0.0132							
333	Lilliefors Test Statistic					0.384							
334	Lilliefors Critical (0.05) Value					0.304							
335	Data not Normal at (0.05) Significance Level												
336													
337	Gamma GOF Test Results												
338													
339	Correlation Coefficient R					0.825							
340	A-D Test Statistic					1.046							
341	A-D Critical (0.05) Value					0.707							
342	K-S Test Statistic					0.405							
343	K-S Critical(0.05) Value					0.312							
344	Data not Gamma Distributed at (0.05) Significance Level												
345													
346	Lognormal GOF Test Results												
347													
348	Correlation Coefficient R					0.857							
349	Shapiro Wilk Test Statistic					0.726							
350	Shapiro Wilk Critical (0.05) Value					0.803							
351	Approximate Shapiro Wilk P Value					0.00825							
352	Lilliefors Test Statistic					0.395							
353	Lilliefors Critical (0.05) Value					0.304							
354	Data not Lognormal at (0.05) Significance Level												
355													
356	Non-parametric GOF Test Results												
357													
358	Data do not follow a discernible distribution at (0.05) Level of Significance												

Canopy Cover QQ Plots



Canopy Cover Box Plots



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Canopy Cover Summary Statistics												
2													
3				General Statistics on Uncensored Full Data									
4	Date/Time of Computation			ProUCL 5.19/29/2022 1:52:06 PM									
5	User Selected Options												
6	From File			Canopy cover.xls									
7	Full Precision			OFF									
8													
9	From File: Canopy cover.xls												
10													
11	General Statistics for Uncensored Data Sets												
12													
13	Variable		NumObs	# Missing	Minimum	Maximum	Mean	Geo-Mean	SD	SEM	MAD/0.675	Skewness	CV
14	TotalCover (i)		7	0	0.7	1.8	1.229	1.167	0.407	0.154	0.445	-0.0394	0.331
15	TotalCover (r)		7	0	0.8	2	1.393	1.309	0.499	0.188	0.593	-0.241	0.358
16	Richness (S) (i)		7	0	1	4	2.714	2.521	0.951	0.36	0	-0.863	0.35
17	Richness (S) (r)		7	0	2	3	2.286	2.246	0.488	0.184	0	1.23	0.213
18	Shannon (H) (i)		7	0	0	1.962	1.264	0	0.706	0.267	0.407	-1.042	0.558
19	Shannon (H) (r)		7	0	0.383	1.801	1.27	1.139	0.525	0.199	0.614	-0.86	0.414
20	Simpson (D) (i)		7	0	0.414	1	0.636	0.608	0.212	0.08	0.181	0.835	0.333
21	Simpson (D) (r)		7	0	0.469	0.909	0.59	0.57	0.179	0.0676	0.0463	1.381	0.303
22	Simpson (RI) (i)		7	0	1	2.418	1.715	1.644	0.514	0.194	0.778	-0.116	0.3
23	Simpson (RI) (r)		7	0	1.1	2.133	1.806	1.754	0.428	0.162	0.198	-1.205	0.237
24													
25	Percentiles for Uncensored Data Sets												
26													
27	Variable		NumObs	# Missing	10%ile	20%ile	25%ile(Q1)	50%ile(Q2)	75%ile(Q3)	80%ile	90%ile	95%ile	99%ile
28	TotalCover (i)		7	0	0.76	0.84	0.9	1.3	1.5	1.5	1.62	1.71	1.782
29	TotalCover (r)		7	0	0.8	0.85	0.925	1.6	1.75	1.78	1.88	1.94	1.988
30	Richness (S) (i)		7	0	1.6	2.2	2.5	3	3	3	3.4	3.7	3.94
31	Richness (S) (r)		7	0	2	2	2	2	2.5	2.8	3	3	3
32	Shannon (H) (i)		7	0	0.452	0.806	0.886	1.687	1.714	1.719	1.818	1.89	1.948
33	Shannon (H) (r)		7	0	0.605	0.879	1.068	1.386	1.593	1.718	1.801	1.801	1.801
34	Simpson (D) (i)		7	0	0.451	0.481	0.489	0.536	0.763	0.774	0.869	0.934	0.987
35	Simpson (D) (r)		7	0	0.469	0.475	0.484	0.5	0.641	0.725	0.832	0.871	0.902
36	Simpson (RI) (i)		7	0	1.168	1.292	1.311	1.867	2.047	2.08	2.229	2.323	2.399
37	Simpson (RI) (r)		7	0	1.208	1.423	1.637	2	2.067	2.107	2.133	2.133	2.133

	A	B	C	D	E	F	G	H	I	J	K	L
53	Group			Obs	Mean	SD	Variance					
54	r			7	0.59	0.179	0.032					
55	i			7	0.636	0.212	0.0448					
56	Grand Statistics (All data)			14	0.613	0.19	0.036					
57												
58	Classical One-Way Analysis of Variance Table											
59	Source	SS	DOF	MS	V.R.(F Stat)	P-Value						
60	Between Groups	0.00746	1	0.00746	0.194	0.667						
61	Within Groups	0.461	12	0.0384								
62	Total	0.468	13									
63												
64	Pooled Standard Deviation			0.196								
65	R-Sq			0.0159								
66												
67	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
68	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
69	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
70												
71												
72	Simpson (RI)											
73												
74	Group	Obs	Mean	SD	Variance							
75	r	7	1.806	0.428	0.183							
76	i	7	1.715	0.514	0.264							
77	Grand Statistics (All data)		14	1.76	0.457	0.209						
78												
79	Classical One-Way Analysis of Variance Table											
80	Source	SS	DOF	MS	V.R.(F Stat)	P-Value						
81	Between Groups	0.0291	1	0.0291	0.13	0.725						
82	Within Groups	2.683	12	0.224								
83	Total	2.712	13									
84												
85	Pooled Standard Deviation			0.473								
86	R-Sq			0.0107								
87												
88	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
89	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
90	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
91												

	A	B	C	D	E	F	G	H	I	J	K	L
1	Canopy Cover Nonparametric ANOVA											
2												
3				Nonparametric Oneway ANOVA (Kruskal-Wallis Test)								
4	Date/Time of Computation			ProUCL 5.19/29/2022 1:53:45 PM								
5	From File			Canopy cover.xls								
6	Full Precision			OFF								
7												
8												
9	Richness (S)											
10												
11	Group	Obs	Median	Ave Rank	Z							
12	i	7	3	8.786	1.15							
13	r	7	2	6.214	-1.15							
14	Overall	14	2.5	7.5								
15												
16	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)								
17	1.322	1	0.25									
18	1.563	1	0.211	(Adjusted for Ties)								
19												
20	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
21	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
22	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
23												
24												
25	Shannon (H)											
26												
27	Group	Obs	Median	Ave Rank	Z							
28	i	7	1.687	7.643	0.128							
29	r	7	1.386	7.357	-0.128							
30	Overall	14	1.386	7.5								
31												
32	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)								
33	0.0163	1	0.898									
34	0.0164	1	0.898	(Adjusted for Ties)								
35												
36	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
37	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
38	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
39												
40												
41	Simpson (D)											
42												
43	Group	Obs	Median	Ave Rank	Z							
44	i	7	0.536	8.214	0.639							
45	r	7	0.5	6.786	-0.639							
46	Overall	14	0.502	7.5								
47												
48	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)								
49	0.408	1	0.523									
50	0.411	1	0.522	(Adjusted for Ties)								
51												
52	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											

	A	B	C	D	E	F	G	H	I	J	K	L	
53	mean/median characteristics of the various groups at 0.05 or other selected level of significance												
54	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.												
55													
56													
57	Simpson (RI)												
58													
59	Group	Obs	Median	Ave Rank	Z								
60	i	7	1.867	6.786	-0.639								
61	r	7	2	8.214	0.639								
62	Overall	14	1.992	7.5									
63													
64	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)									
65	0.408	1	0.523										
66	0.411	1	0.522	(Adjusted for Ties)									
67													
68	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in												
69	mean/median characteristics of the various groups at 0.05 or other selected level of significance												
70	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.												
71													

	A	B	C	D	E	F	G	H	I	J	K	L
1	Ground Cover Goodness-of-fit (GOF) Tests											
2												
3				Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects								
4	User Selected Options											
5	Date/Time of Computation			ProUCL 5.19/29/2022 3:31:14 PM								
6	From File			Ground cover.xls								
7	Full Precision			OFF								
8	Confidence Coefficient			0.95								
9												
10												
11	Richness (S) (I)											
12												
13	Raw Statistics											
14	Number of Valid Observations					7						
15	Number of Distinct Observations					5						
16	Minimum					1						
17	Maximum					6						
18	Mean of Raw Data					3.429						
19	Standard Deviation of Raw Data					1.618						
20	Khat					4.125						
21	Theta hat					0.831						
22	Kstar					2.452						
23	Theta star					1.398						
24	Mean of Log Transformed Data					1.106						
25	Standard Deviation of Log Transformed Data					0.592						
26												
27	Normal GOF Test Results											
28												
29	Correlation Coefficient R					0.969						
30	Shapiro Wilk Test Statistic					0.95						
31	Shapiro Wilk Critical (0.05) Value					0.803						
32	Approximate Shapiro Wilk P Value					0.649						
33	Lilliefors Test Statistic					0.219						
34	Lilliefors Critical (0.05) Value					0.304						
35	Data appear Normal at (0.05) Significance Level											
36												
37	Gamma GOF Test Results											
38												
39	Correlation Coefficient R					0.946						
40	A-D Test Statistic					0.4						
41	A-D Critical (0.05) Value					0.71						
42	K-S Test Statistic					0.257						
43	K-S Critical(0.05) Value					0.313						
44	Data appear Gamma Distributed at (0.05) Significance Level											
45												
46	Lognormal GOF Test Results											
47												
48	Correlation Coefficient R					0.937						
49	Shapiro Wilk Test Statistic					0.89						
50	Shapiro Wilk Critical (0.05) Value					0.803						
51	Approximate Shapiro Wilk P Value					0.226						
52	Lilliefors Test Statistic					0.254						

	A	B	C	D	E	F	G	H	I	J	K	L
53	Lilliefors Critical (0.05) Value					0.304						
54	Data appear Lognormal at (0.05) Significance Level											
55												
56	Richness (S) (r)											
57												
58	Raw Statistics											
59	Number of Valid Observations					7						
60	Number of Distinct Observations					4						
61	Minimum					1						
62	Maximum					4						
63	Mean of Raw Data					2.571						
64	Standard Deviation of Raw Data					0.976						
65	Khat					6.61						
66	Theta hat					0.389						
67	Kstar					3.872						
68	Theta star					0.664						
69	Mean of Log Transformed Data					0.867						
70	Standard Deviation of Log Transformed Data					0.455						
71												
72	Normal GOF Test Results											
73												
74	Correlation Coefficient R					0.962						
75	Shapiro Wilk Test Statistic					0.936						
76	Shapiro Wilk Critical (0.05) Value					0.803						
77	Approximate Shapiro Wilk P Value					0.537						
78	Lilliefors Test Statistic					0.241						
79	Lilliefors Critical (0.05) Value					0.304						
80	Data appear Normal at (0.05) Significance Level											
81												
82	Gamma GOF Test Results											
83												
84	Correlation Coefficient R					0.939						
85	A-D Test Statistic					0.455						
86	A-D Critical (0.05) Value					0.709						
87	K-S Test Statistic					0.275						
88	K-S Critical(0.05) Value					0.313						
89	Data appear Gamma Distributed at (0.05) Significance Level											
90												
91	Lognormal GOF Test Results											
92												
93	Correlation Coefficient R					0.928						
94	Shapiro Wilk Test Statistic					0.877						
95	Shapiro Wilk Critical (0.05) Value					0.803						
96	Approximate Shapiro Wilk P Value					0.165						
97	Lilliefors Test Statistic					0.266						
98	Lilliefors Critical (0.05) Value					0.304						
99	Data appear Lognormal at (0.05) Significance Level											
100												
101	Shannon (H) (i)											
102												
103	Raw Statistics											
104	Number of Valid Observations					7						

	A	B	C	D	E	F	G	H	I	J	K	L
105	Number of Distinct Observations					7						
106	Minimum					0						
107	Maximum					3.466						
108	Mean of Raw Data					1.88						
109	Standard Deviation of Raw Data					1.241						
110	Data contains values <= 0											
111	Data not gamma or lognormal											
112												
113	Normal GOF Test Results											
114												
115	Correlation Coefficient R					0.967						
116	Shapiro Wilk Test Statistic					0.928						
117	Shapiro Wilk Critical (0.05) Value					0.803						
118	Approximate Shapiro Wilk P Value					0.612						
119	Lilliefors Test Statistic					0.242						
120	Lilliefors Critical (0.05) Value					0.304						
121	Data appear Normal at (0.05) Significance Level											
122												
123	Shannon (H) (r)											
124												
125	Raw Statistics											
126	Number of Valid Observations					7						
127	Number of Distinct Observations					7						
128	Minimum					0						
129	Maximum					2.664						
130	Mean of Raw Data					1.492						
131	Standard Deviation of Raw Data					0.862						
132	Data contains values <= 0											
133	Data not gamma or lognormal											
134												
135	Normal GOF Test Results											
136												
137	Correlation Coefficient R					0.968						
138	Shapiro Wilk Test Statistic					0.948						
139	Shapiro Wilk Critical (0.05) Value					0.803						
140	Approximate Shapiro Wilk P Value					0.634						
141	Lilliefors Test Statistic					0.192						
142	Lilliefors Critical (0.05) Value					0.304						
143	Data appear Normal at (0.05) Significance Level											
144												
145	Simpson (D) (i)											
146												
147	Raw Statistics											
148	Number of Valid Observations					7						
149	Number of Distinct Observations					7						
150	Minimum					0.188						
151	Maximum					1						
152	Mean of Raw Data					0.505						
153	Standard Deviation of Raw Data					0.317						
154	Khat					3.178						
155	Theta hat					0.159						
156	Kstar					1.911						

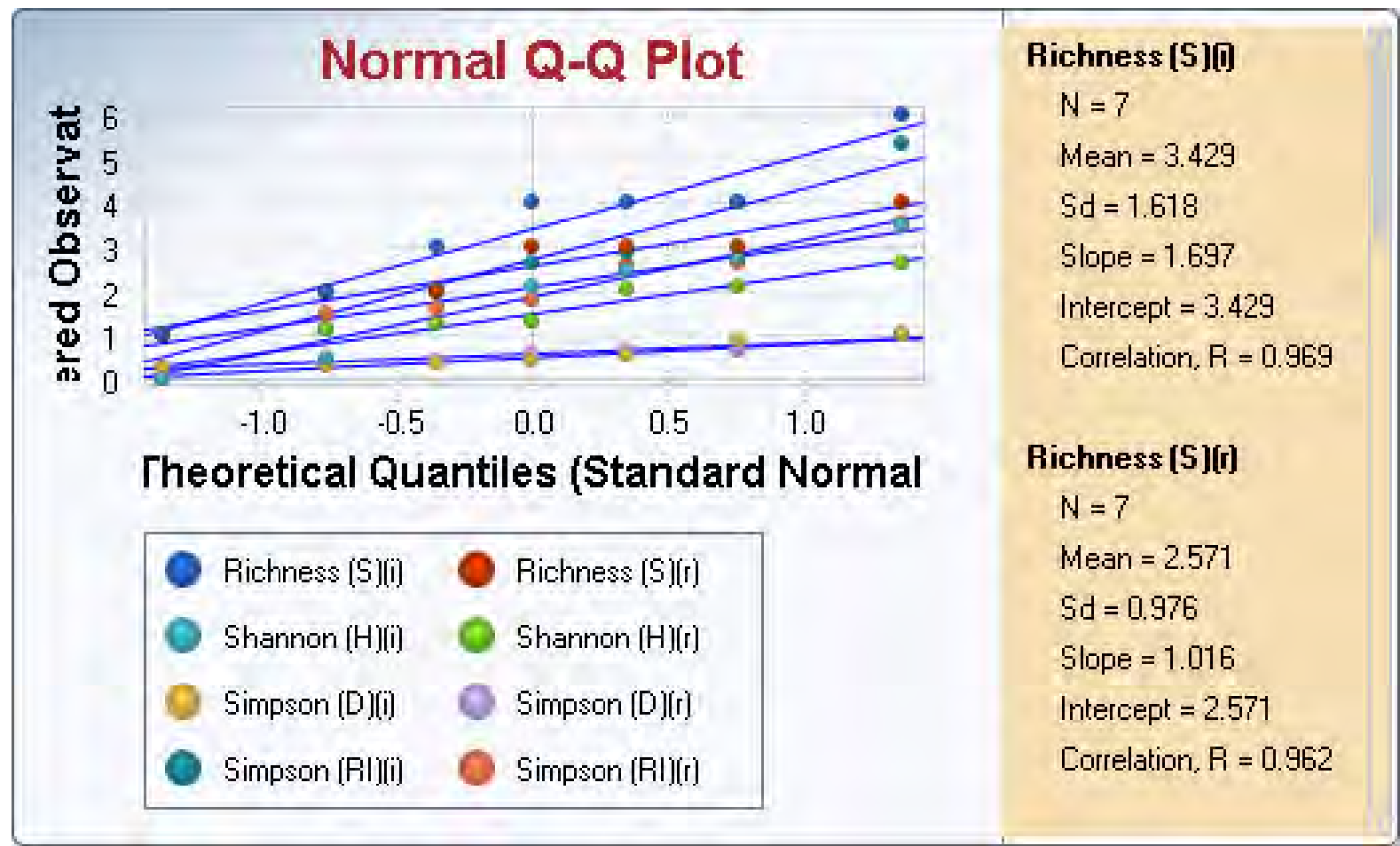
	A	B	C	D	E	F	G	H	I	J	K	L
157	Theta star					0.264						
158	Mean of Log Transformed Data					-0.85						
159	Standard Deviation of Log Transformed Data					0.62						
160												
161	Normal GOF Test Results											
162												
163	Correlation Coefficient R					0.936						
164	Shapiro Wilk Test Statistic					0.862						
165	Shapiro Wilk Critical (0.05) Value					0.803						
166	Approximate Shapiro Wilk P Value					0.216						
167	Lilliefors Test Statistic					0.237						
168	Lilliefors Critical (0.05) Value					0.304						
169	Data appear Normal at (0.05) Significance Level											
170												
171	Gamma GOF Test Results											
172												
173	Correlation Coefficient R					0.966						
174	A-D Test Statistic					0.339						
175	A-D Critical (0.05) Value					0.712						
176	K-S Test Statistic					0.194						
177	K-S Critical(0.05) Value					0.314						
178	Data appear Gamma Distributed at (0.05) Significance Level											
179												
180	Lognormal GOF Test Results											
181												
182	Correlation Coefficient R					0.98						
183	Shapiro Wilk Test Statistic					0.945						
184	Shapiro Wilk Critical (0.05) Value					0.803						
185	Approximate Shapiro Wilk P Value					0.825						
186	Lilliefors Test Statistic					0.167						
187	Lilliefors Critical (0.05) Value					0.304						
188	Data appear Lognormal at (0.05) Significance Level											
189												
190	Simpson (D) (r)											
191												
192	Raw Statistics											
193	Number of Valid Observations					7						
194	Number of Distinct Observations					7						
195	Minimum					0.28						
196	Maximum					1						
197	Mean of Raw Data					0.555						
198	Standard Deviation of Raw Data					0.241						
199	Khat					6.537						
200	Theta hat					0.0849						
201	Kstar					3.831						
202	Theta star					0.145						
203	Mean of Log Transformed Data					-0.667						
204	Standard Deviation of Log Transformed Data					0.427						
205												
206	Normal GOF Test Results											
207												
208	Correlation Coefficient R					0.958						

	A	B	C	D	E	F	G	H	I	J	K	L
209	Shapiro Wilk Test Statistic					0.924						
210	Shapiro Wilk Critical (0.05) Value					0.803						
211	Approximate Shapiro Wilk P Value					0.472						
212	Lilliefors Test Statistic					0.189						
213	Lilliefors Critical (0.05) Value					0.304						
214	Data appear Normal at (0.05) Significance Level											
215												
216	Gamma GOF Test Results											
217												
218	Correlation Coefficient R					0.983						
219	A-D Test Statistic					0.241						
220	A-D Critical (0.05) Value					0.709						
221	K-S Test Statistic					0.194						
222	K-S Critical(0.05) Value					0.313						
223	Data appear Gamma Distributed at (0.05) Significance Level											
224												
225	Lognormal GOF Test Results											
226												
227	Correlation Coefficient R					0.985						
228	Shapiro Wilk Test Statistic					0.97						
229	Shapiro Wilk Critical (0.05) Value					0.803						
230	Approximate Shapiro Wilk P Value					0.9						
231	Lilliefors Test Statistic					0.17						
232	Lilliefors Critical (0.05) Value					0.304						
233	Data appear Lognormal at (0.05) Significance Level											
234												
235	Simpson (RI) (i)											
236												
237	Raw Statistics											
238	Number of Valid Observations					7						
239	Number of Distinct Observations					7						
240	Minimum					1						
241	Maximum					5.333						
242	Mean of Raw Data					2.727						
243	Standard Deviation of Raw Data					1.552						
244	Khat					3.412						
245	Theta hat					0.799						
246	Kstar					2.045						
247	Theta star					1.334						
248	Mean of Log Transformed Data					0.85						
249	Standard Deviation of Log Transformed Data					0.62						
250												
251	Normal GOF Test Results											
252												
253	Correlation Coefficient R					0.976						
254	Shapiro Wilk Test Statistic					0.943						
255	Shapiro Wilk Critical (0.05) Value					0.803						
256	Approximate Shapiro Wilk P Value					0.758						
257	Lilliefors Test Statistic					0.168						
258	Lilliefors Critical (0.05) Value					0.304						
259	Data appear Normal at (0.05) Significance Level											
260												

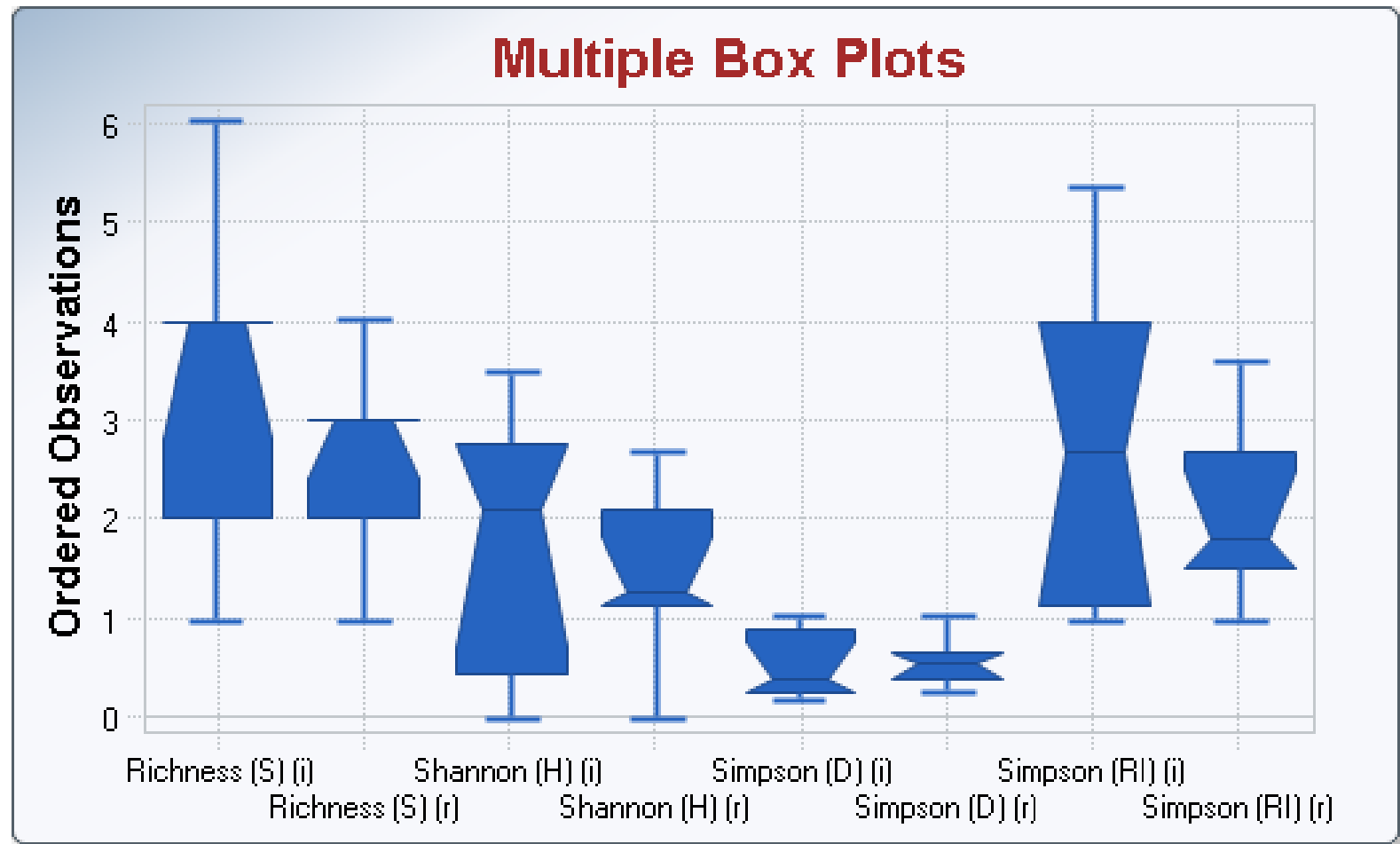
	A	B	C	D	E	F	G	H	I	J	K	L
261	Gamma GOF Test Results											
262												
263	Correlation Coefficient R					0.991						
264	A-D Test Statistic					0.225						
265	A-D Critical (0.05) Value					0.711						
266	K-S Test Statistic					0.177						
267	K-S Critical(0.05) Value					0.313						
268	Data appear Gamma Distributed at (0.05) Significance Level											
269												
270	Lognormal GOF Test Results											
271												
272	Correlation Coefficient R					0.98						
273	Shapiro Wilk Test Statistic					0.945						
274	Shapiro Wilk Critical (0.05) Value					0.803						
275	Approximate Shapiro Wilk P Value					0.825						
276	Lilliefors Test Statistic					0.167						
277	Lilliefors Critical (0.05) Value					0.304						
278	Data appear Lognormal at (0.05) Significance Level											
279												
280	Simpson (RI) (r)											
281												
282	Raw Statistics											
283	Number of Valid Observations					7						
284	Number of Distinct Observations					7						
285	Minimum					1						
286	Maximum					3.571						
287	Mean of Raw Data					2.104						
288	Standard Deviation of Raw Data					0.876						
289	Khat					6.72						
290	Theta hat					0.313						
291	Kstar					3.935						
292	Theta star					0.535						
293	Mean of Log Transformed Data					0.667						
294	Standard Deviation of Log Transformed Data					0.427						
295												
296	Normal GOF Test Results											
297												
298	Correlation Coefficient R					0.973						
299	Shapiro Wilk Test Statistic					0.948						
300	Shapiro Wilk Critical (0.05) Value					0.803						
301	Approximate Shapiro Wilk P Value					0.722						
302	Lilliefors Test Statistic					0.207						
303	Lilliefors Critical (0.05) Value					0.304						
304	Data appear Normal at (0.05) Significance Level											
305												
306	Gamma GOF Test Results											
307												
308	Correlation Coefficient R					0.986						
309	A-D Test Statistic					0.236						
310	A-D Critical (0.05) Value					0.709						
311	K-S Test Statistic					0.176						
312	K-S Critical(0.05) Value					0.313						

	A	B	C	D	E	F	G	H	I	J	K	L
313	Data appear Gamma Distributed at (0.05) Significance Level											
314												
315	Lognormal GOF Test Results											
316												
317	Correlation Coefficient R				0.985							
318	Shapiro Wilk Test Statistic				0.97							
319	Shapiro Wilk Critical (0.05) Value				0.803							
320	Approximate Shapiro Wilk P Value				0.9							
321	Lilliefors Test Statistic				0.17							
322	Lilliefors Critical (0.05) Value				0.304							
323	Data appear Lognormal at (0.05) Significance Level											

Ground Cover QQ Plots



Ground Cover Box Plots



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Ground Cover Summary Statistics												
2													
3				General Statistics on Uncensored Full Data									
4	Date/Time of Computation			ProUCL 5.19/29/2022 1:35:18 PM									
5	User Selected Options												
6	From File			Ground cover.xls									
7	Full Precision			OFF									
8													
9	From File: Ground cover.xls												
10													
11	General Statistics for Uncensored Data Sets												
12													
13	Variable		NumObs	# Missing	Minimum	Maximum	Mean	Geo-Mean	SD	SEM	MAD/0.675	Skewness	CV
14	TotalCover (i)		7	0	0.1	0.85	0.393	0.318	0.262	0.0991	0.297	0.842	0.667
15	TotalCover (r)		7	0	0.1	0.6	0.364	0.322	0.165	0.0624	0.148	-0.235	0.453
16	Richness (S) (i)		7	0	1	6	3.429	3.022	1.618	0.612	1.483	0.0135	0.472
17	Richness (S) (r)		7	0	1	4	2.571	2.38	0.976	0.369	1.483	-0.277	0.38
18	Shannon (H) (i)		7	0	0	3.466	1.88	0	1.241	0.469	1.028	-0.574	0.66
19	Shannon (H) (r)		7	0	0	2.664	1.492	0	0.862	0.326	1.104	-0.519	0.578
20	Simpson (D) (i)		7	0	0.188	1	0.505	0.428	0.317	0.12	0.185	0.91	0.628
21	Simpson (D) (r)		7	0	0.28	1	0.555	0.513	0.241	0.0912	0.247	0.971	0.435
22	Simpson (RI) (i)		7	0	1	5.333	2.727	2.339	1.552	0.587	1.977	0.637	0.569
23	Simpson (RI) (r)		7	0	1	3.571	2.104	1.949	0.876	0.331	1.144	0.605	0.416
24													
25	Percentiles for Uncensored Data Sets												
26													
27	Variable		NumObs	# Missing	10%ile	20%ile	25%ile(Q1)	50%ile(Q2)	75%ile(Q3)	80%ile	90%ile	95%ile	99%ile
28	TotalCover (i)		7	0	0.16	0.2	0.2	0.4	0.5	0.56	0.7	0.775	0.835
29	TotalCover (r)		7	0	0.19	0.26	0.275	0.4	0.45	0.48	0.54	0.57	0.594
30	Richness (S) (i)		7	0	1.6	2.2	2.5	4	4	4	4.8	5.4	5.88
31	Richness (S) (r)		7	0	1.6	2	2	3	3	3	3.4	3.7	3.94
32	Shannon (H) (i)		7	0	0.268	0.751	1.207	2.079	2.599	2.703	3.05	3.258	3.424
33	Shannon (H) (r)		7	0	0.675	1.154	1.199	1.278	2.051	2.068	2.313	2.489	2.629
34	Simpson (D) (i)		7	0	0.225	0.269	0.297	0.375	0.688	0.809	0.934	0.967	0.993
35	Simpson (D) (r)		7	0	0.337	0.378	0.382	0.556	0.643	0.653	0.796	0.898	0.98
36	Simpson (RI) (i)		7	0	1.075	1.311	1.591	2.667	3.455	3.782	4.533	4.933	5.253
37	Simpson (RI) (r)		7	0	1.309	1.532	1.558	1.8	2.619	2.648	3.029	3.3	3.517

	A	B	C	D	E	F	G	H	I	J	K	L
53	Group			Obs	Mean	SD	Variance					
54	r			7	0.555	0.241	0.0583					
55	i			7	0.505	0.317	0.1					
56	Grand Statistics (All data)			14	0.53	0.272	0.0739					
57												
58	Classical One-Way Analysis of Variance Table											
59	Source	SS	DOF	MS	V.R.(F Stat)	P-Value						
60	Between Groups	0.00889	1	0.00889	0.112	0.743						
61	Within Groups	0.951	12	0.0793								
62	Total	0.96	13									
63												
64	Pooled Standard Deviation			0.282								
65	R-Sq			0.00926								
66												
67	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
68	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
69	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
70												
71												
72	Simpson (RI)											
73												
74	Group	Obs	Mean	SD	Variance							
75	r	7	2.104	0.876	0.767							
76	i	7	2.727	1.552	2.408							
77	Grand Statistics (All data)		14	2.415	1.253	1.57						
78												
79	Classical One-Way Analysis of Variance Table											
80	Source	SS	DOF	MS	V.R.(F Stat)	P-Value						
81	Between Groups	1.362	1	1.362	0.858	0.373						
82	Within Groups	19.05	12	1.587								
83	Total	20.41	13									
84												
85	Pooled Standard Deviation			1.26								
86	R-Sq			0.0667								
87												
88	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
89	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
90	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
91												

	A	B	C	D	E	F	G	H	I	J	K	L
1	Ground Cover Nonparametric ANOVA											
2												
3				Nonparametric Oneway ANOVA (Kruskal-Wallis Test)								
4	Date/Time of Computation			ProUCL 5.19/29/2022 1:39:40 PM								
5	From File			Ground cover.xls								
6	Full Precision			OFF								
7												
8												
9	Richness (S)											
10												
11	Group	Obs	Median	Ave Rank	Z							
12	i	7	4	8.786	1.15							
13	r	7	3	6.214	-1.15							
14	Overall	14	3	7.5								
15												
16	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)								
17	1.322	1	0.25									
18	1.399	1	0.237	(Adjusted for Ties)								
19												
20	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
21	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
22	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
23												
24												
25	Shannon (H)											
26												
27	Group	Obs	Median	Ave Rank	Z							
28	i	7	2.079	8.429	0.831							
29	r	7	1.278	6.571	-0.831							
30	Overall	14	1.994	7.5								
31												
32	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)								
33	0.69	1	0.406									
34	0.693	1	0.405	(Adjusted for Ties)								
35												
36	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
37	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
38	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
39												
40												
41	Simpson (D)											
42												
43	Group	Obs	Median	Ave Rank	Z							
44	i	7	0.375	6.571	-0.831							
45	r	7	0.556	8.429	0.831							
46	Overall	14	0.438	7.5								
47												
48	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)								
49	0.69	1	0.406									
50	0.693	1	0.405	(Adjusted for Ties)								
51												
52	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											

	A	B	C	D	E	F	G	H	I	J	K	L	
53	mean/median characteristics of the various groups at 0.05 or other selected level of significance												
54	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.												
55													
56													
57	Simpson (RI)												
58													
59	Group	Obs	Median	Ave Rank	Z								
60	i	7	2.667	8.429	0.831								
61	r	7	1.8	6.571	-0.831								
62	Overall	14	2.314	7.5									
63													
64	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)									
65	0.69	1	0.406										
66	0.693	1	0.405	(Adjusted for Ties)									
67													
68	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in												
69	mean/median characteristics of the various groups at 0.05 or other selected level of significance												
70	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.												
71													

ATTACHMENT C

REGRESSION OF PLANT AND INVERTEBRATE METRICS ON SOIL CHEMISTRY – PROUCL OUTPUT

Canopy Cover Regression

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:31:00 AM								
4	From File			Canopy regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Richness (S							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Pb							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	2.793	0.3	9.306	7.7465E-7							
25	Pb	-0.00203	0.00156	-1.298	0.219							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.923	1	0.923	1.684	0.2188				
30	Error			6.577	12	0.548						
31	Total			7.5	13							
32												
33	R Square				0.123							
34	Adjusted R Square				0.05							
35	Sqrt(MSE) = Scale				0.74							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	3	2.715	0.285	0.385							
40	2	2	2.68	-0.68	-0.919							
41	3	3	2.667	0.333	0.45							
42	4	4	2.63	1.37	1.851							
43	5	2	2.617	-0.617	-0.834							
44	6	3	2.615	0.385	0.52							
45	7	2	2.613	-0.613	-0.828							
46	8	2	2.602	-0.602	-0.814							
47	9	2	2.572	-0.572	-0.773							
48	10	2	2.566	-0.566	-0.764							
49	11	3	2.463	0.537	0.726							
50	12	3	2.444	0.556	0.75							
51	13	3	2.037	0.963	1.3							
52	14	1	1.778	-0.778	-1.051							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:31:16 AM								
4	From File			Canopy regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Shannon (H							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Pb							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	1.555	0.227	6.857	1.7552E-5							
25	Pb	-0.00199	0.00118	-1.687	0.117							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.891	1	0.891	2.847	0.1173				
30	Error			3.756	12	0.313						
31	Total			4.647	13							
32												
33	R Square				0.192							
34	Adjusted R Square				0.124							
35	Sqrt(MSE) = Scale				0.559							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	1.801	1.478	0.322	0.576							
40	2	1.386	1.445	-0.0582	-0.104							
41	3	1.962	1.431	0.531	0.949							
42	4	1.687	1.395	0.292	0.522							
43	5	0.754	1.383	-0.629	-1.125							
44	6	1.801	1.38	0.42	0.751							
45	7	1.386	1.378	0.00823	0.0147							
46	8	0.383	1.368	-0.985	-1.761							
47	9	1.383	1.338	0.0448	0.08							
48	10	0.754	1.332	-0.579	-1.034							
49	11	1.706	1.231	0.476	0.851							
50	12	1.018	1.213	-0.194	-0.348							
51	13	1.722	0.813	0.909	1.625							
52	14	0	0.558	-0.558	-0.997							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:31:31 AM								
4	From File			Canopy regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Simpson (D							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Pb							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	0.518	0.0712	7.273	9.8383E-6							
25	Pb	6.6099E-4	3.7009E-4	1.786	0.0994							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.0983	1	0.0983	3.19	0.0994				
30	Error			0.37	12	0.0308						
31	Total			0.468	13							
32												
33	R Square				0.21							
34	Adjusted R Square				0.144							
35	Sqrt(MSE) = Scale				0.176							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	0.469	0.543	-0.0742	-0.423							
40	2	0.5	0.554	-0.0542	-0.309							
41	3	0.414	0.559	-0.145	-0.827							
42	4	0.536	0.571	-0.0351	-0.2							
43	5	0.781	0.575	0.207	1.176							
44	6	0.469	0.575	-0.107	-0.608							
45	7	0.5	0.576	-0.0763	-0.434							
46	8	0.909	0.58	0.33	1.878							
47	9	0.502	0.59	-0.0878	-0.5							
48	10	0.781	0.592	0.19	1.081							
49	11	0.476	0.625	-0.15	-0.853							
50	12	0.745	0.631	0.114	0.648							
51	13	0.502	0.764	-0.262	-1.492							
52	14	1	0.849	0.151	0.862							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:31:52 AM								
4	From File			Canopy regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Simpson (R							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Pb							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	1.96	0.177	11.09	1.1596E-7							
25	Pb	-0.00138	9.1935E-4	-1.505	0.158							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.431	1	0.431	2.265	0.1582				
30	Error			2.282	12	0.19						
31	Total			2.712	13							
32												
33	R Square				0.159							
34	Adjusted R Square				0.0887							
35	Sqrt(MSE) = Scale				0.436							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	2.133	1.907	0.226	0.519							
40	2	2	1.883	0.117	0.268							
41	3	2.418	1.874	0.544	1.248							
42	4	1.867	1.849	0.0185	0.0425							
43	5	1.28	1.84	-0.56	-1.285							
44	6	2.133	1.839	0.295	0.676							
45	7	2	1.837	0.163	0.374							
46	8	1.1	1.83	-0.73	-1.675							
47	9	1.993	1.809	0.184	0.422							
48	10	1.28	1.805	-0.525	-1.204							
49	11	2.103	1.735	0.368	0.844							
50	12	1.342	1.722	-0.38	-0.871							
51	13	1.991	1.444	0.547	1.255							
52	14	1	1.267	-0.267	-0.612							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:32:14 AM								
4	From File			Canopy regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Richness (S							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Zn							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	2.172	0.202	10.73	1.6633E-7							
25	Zn	3.1714E-4	1.1380E-4	2.787	0.0164							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			2.947	1	2.947	7.767	0.0164				
30	Error			4.553	12	0.379						
31	Total			7.5	13							
32												
33	R Square				0.393							
34	Adjusted R Square				0.342							
35	Sqrt(MSE) = Scale				0.616							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	3	2.175	0.825	1.339							
40	2	2	2.182	-0.182	-0.296							
41	3	2	2.185	-0.185	-0.3							
42	4	3	2.191	0.809	1.314							
43	5	3	2.196	0.804	1.306							
44	6	2	2.206	-0.206	-0.334							
45	7	2	2.231	-0.231	-0.374							
46	8	2	2.235	-0.235	-0.382							
47	9	1	2.302	-1.302	-2.114							
48	10	2	2.326	-0.326	-0.529							
49	11	3	2.787	0.213	0.346							
50	12	3	3.256	-0.256	-0.416							
51	13	3	3.314	-0.314	-0.509							
52	14	4	3.415	0.585	0.95							

1	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:32:32 AM								
4	From File			Canopy regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Shannon (H							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Zn							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	1.115	0.19	5.869	7.6133E-5							
25	Zn	1.4725E-4	1.0681E-4	1.379	0.193							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.635	1	0.635	1.901	0.1932				
30	Error			4.011	12	0.334						
31	Total			4.647	13							
32												
33	R Square				0.137							
34	Adjusted R Square				0.0648							
35	Sqrt(MSE) = Scale				0.578							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	1.801	1.116	0.684	1.183							
40	2	0.754	1.12	-0.366	-0.633							
41	3	1.386	1.121	0.265	0.459							
42	4	1.722	1.124	0.598	1.034							
43	5	1.801	1.126	0.674	1.167							
44	6	1.386	1.131	0.256	0.442							
45	7	1.383	1.142	0.241	0.416							
46	8	0.383	1.144	-0.761	-1.317							
47	9	0	1.175	-1.175	-2.033							
48	10	0.754	1.186	-0.433	-0.749							
49	11	1.018	1.401	-0.382	-0.661							
50	12	1.706	1.619	0.0879	0.152							
51	13	1.962	1.645	0.317	0.548							
52	14	1.687	1.692	-0.00498	-0.00861							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:32:52 AM								
4	From File			Canopy regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Simpson (D							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Zn							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	0.648	0.0625	10.36	2.4411E-7							
25	Zn	-3.371E-5	3.5164E-5	-0.959	0.357							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.0333	1	0.0333	0.919	0.3567				
30	Error			0.435	12	0.0362						
31	Total			0.468	13							
32												
33	R Square				0.0711							
34	Adjusted R Square				0							
35	Sqrt(MSE) = Scale				0.19							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	0.469	0.648	-0.179	-0.94							
40	2	0.781	0.647	0.134	0.706							
41	3	0.5	0.647	-0.147	-0.77							
42	4	0.502	0.646	-0.144	-0.755							
43	5	0.469	0.645	-0.177	-0.928							
44	6	0.5	0.644	-0.144	-0.758							
45	7	0.502	0.642	-0.14	-0.735							
46	8	0.909	0.641	0.268	1.409							
47	9	1	0.634	0.366	1.922							
48	10	0.781	0.632	0.15	0.786							
49	11	0.745	0.583	0.162	0.853							
50	12	0.476	0.533	-0.0571	-0.3							
51	13	0.414	0.527	-0.113	-0.594							
52	14	0.536	0.516	0.0197	0.104							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:33:07 AM								
4	From File			Canopy regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Simpson (R							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Zn							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	1.669	0.15	11.16	1.0789E-7							
25	Zn	8.8130E-5	8.4065E-5	1.048	0.315							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.228	1	0.228	1.099	0.3151				
30	Error			2.485	12	0.207						
31	Total			2.712	13							
32												
33	R Square				0.0839							
34	Adjusted R Square				0.00756							
35	Sqrt(MSE) = Scale				0.455							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	2.133	1.67	0.464	1.019							
40	2	1.28	1.672	-0.392	-0.861							
41	3	2	1.672	0.328	0.72							
42	4	1.991	1.674	0.317	0.697							
43	5	2.133	1.676	0.458	1.006							
44	6	2	1.678	0.322	0.707							
45	7	1.993	1.685	0.308	0.677							
46	8	1.1	1.687	-0.587	-1.29							
47	9	1	1.705	-0.705	-1.549							
48	10	1.28	1.712	-0.432	-0.949							
49	11	1.342	1.84	-0.497	-1.093							
50	12	2.103	1.97	0.132	0.291							
51	13	2.418	1.986	0.432	0.949							
52	14	1.867	2.014	-0.147	-0.323							

Classical Regression



OLS	
n	14
Slope	-0.0020
Intercept	2.7928
R-sq	0.1231
R	-0.3508
Scale Estimate	0.7403
P-value (Reg)	0.2188
P-value (Slope)	0.2188
Mann-Kendall	
S	-13.0000
SD of S	16.6433
Standardized S	-0.7210
Approximate p-value	0.2355
Confidence Coefficient	0.9500

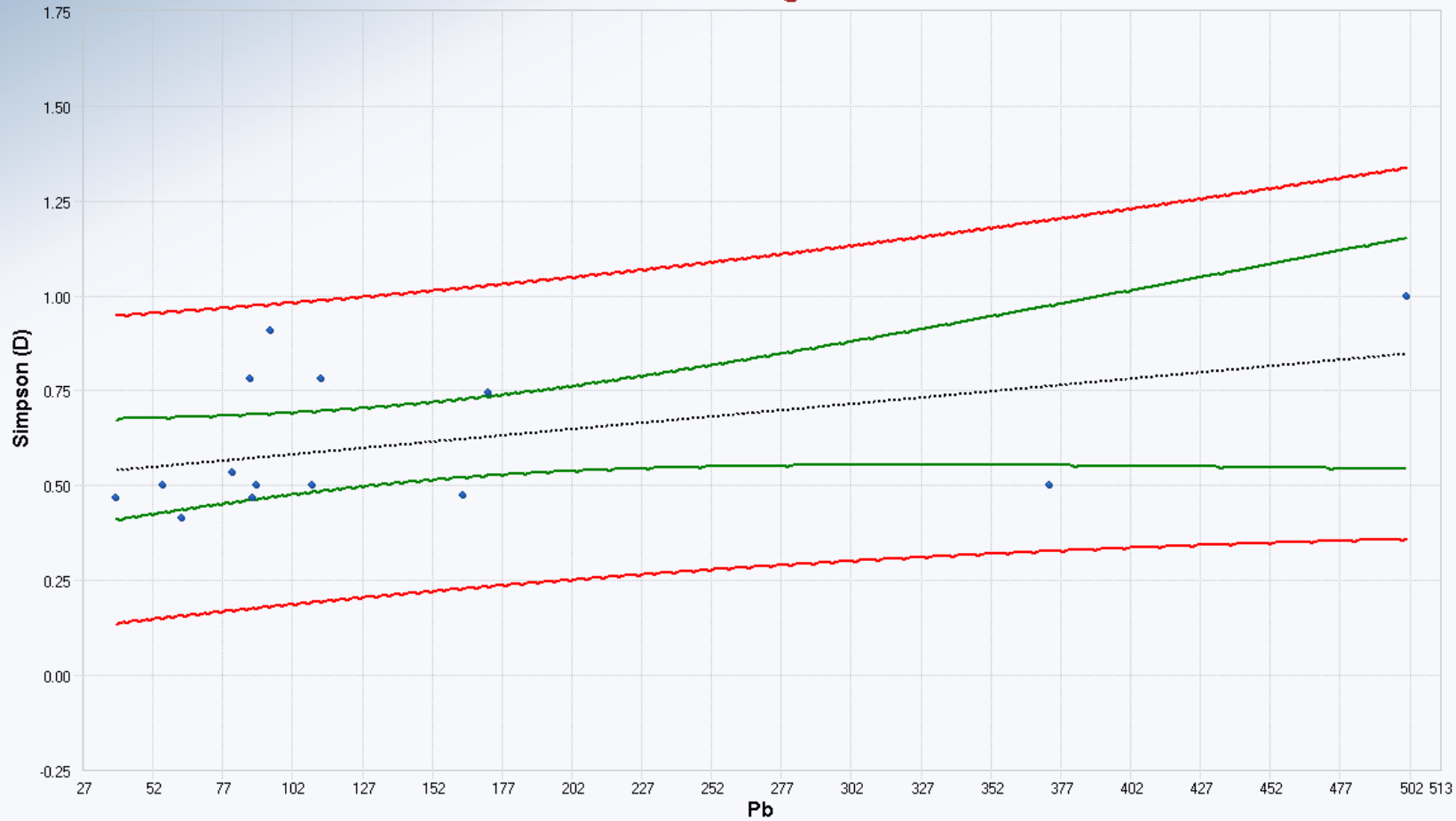
Red = Prediction Interval
Green = Confidence Interval

Classical Regression



OLS		
n	14	
Slope	-0.0020	
Intercept	1.5550	
R-sq	0.1918	
R	-0.4379	
Scale Estimate	0.5594	
P-value (Reg)	0.1173	
P-value (Slope)	0.1173	
Mann-Kendall		
S	-30.0000	
SD of S	18.1842	
Standardized S	-1.5948	
Approximate p-value	0.0554	
Confidence Coefficient	0.9500	
Red = Prediction Interval		
Green = Confidence Interval		

Classical Regression



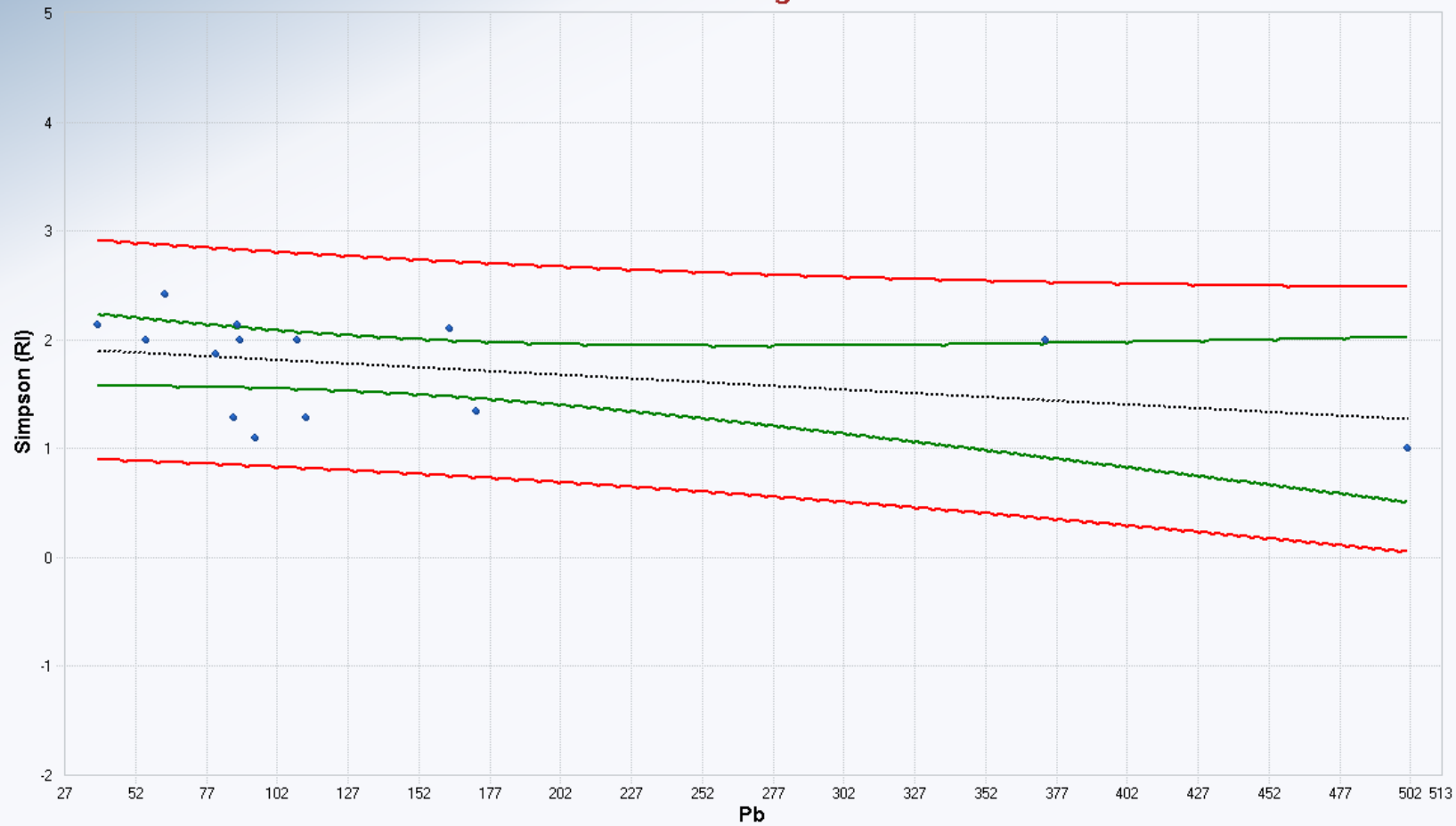
OLS	
n	14
Slope	0.0007
Intercept	0.5175
R-sq	0.2100
R	0.4583
Scale Estimate	0.1755
P-value (Reg)	0.0994
P-value (Slope)	0.0994

Mann-Kendall	
S	36.0000
SD of S	18.1842
Standardized S	1.9247
Approximate p-value	0.0271

Confidence Coefficient 0.9500

Red = Prediction Interval
Green = Confidence Interval

Classical Regression



OLS	
n	14
Slope	-0.0014
Intercept	1.9601
R-sq	0.1588
R	-0.3985
Scale Estimate	0.4360
P-value (Reg)	0.1582
P-value (Slope)	0.1582
Mann-Kendall	
S	-36.0000
SD of S	18.1842
Standardized S	-1.9247
Approximate p-value	0.0271
Confidence Coefficient	0.9500
Red = Prediction Interval Green = Confidence Interval	

Classical Regression



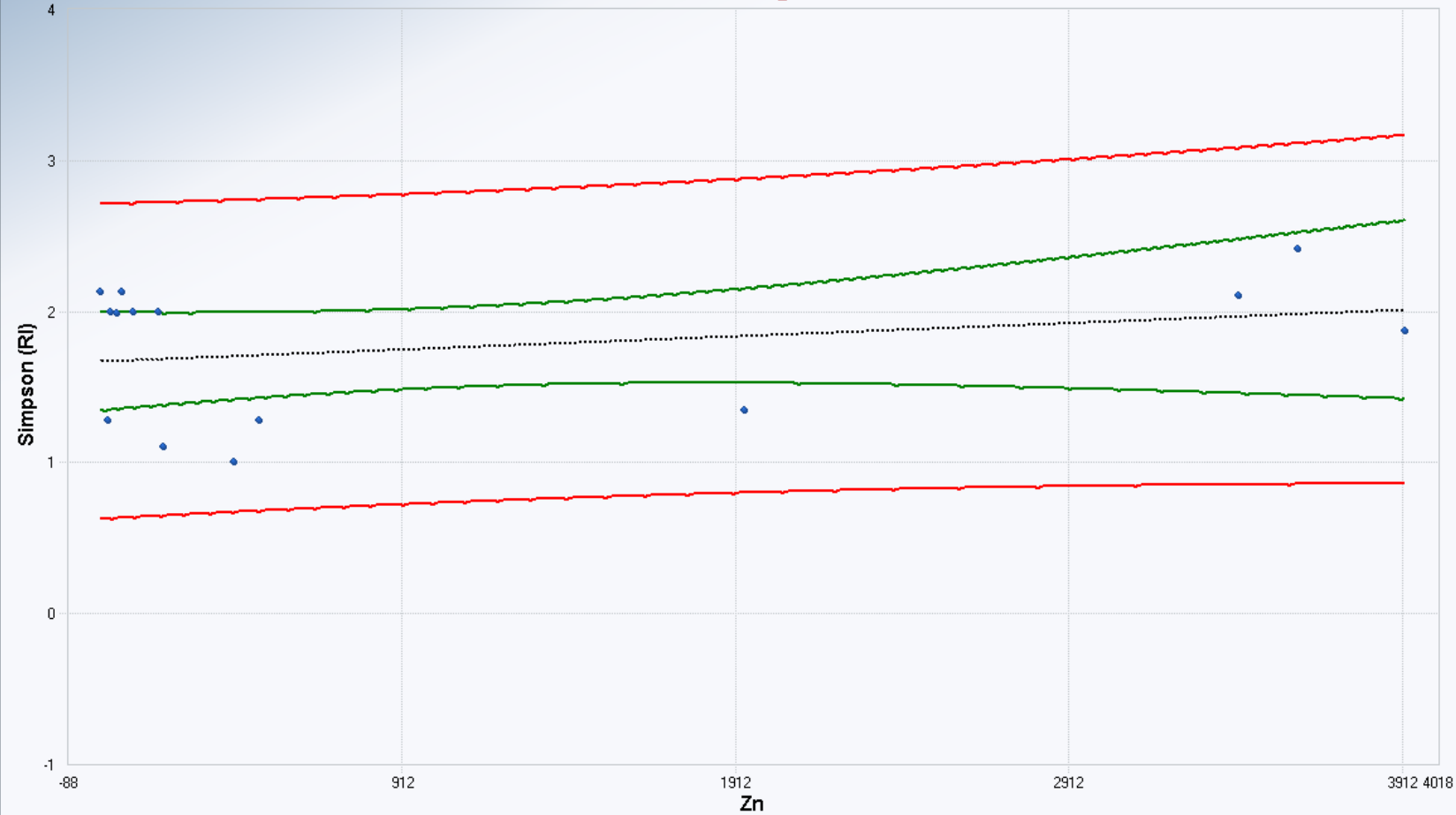
OLS	
n	14
Slope	0.0001
Intercept	1.1149
R-sq	0.1367
R	0.3698
Scale Estimate	0.5782
P-value (Reg)	0.1932
P-value (Slope)	0.1932
Mann-Kendall	
S	-4.0000
SD of S	18.1842
Standardized S	-0.1650
Approximate p-value	0.4345
Confidence Coefficient	0.9500
Red = Prediction Interval	
Green = Confidence Interval	

Classical Regression



OLS	
n	14
Slope	0.0000
Intercept	0.6479
R-sq	0.0711
R	-0.2667
Scale Estimate	0.1903
P-value (Reg)	0.3567
P-value (Slope)	0.3567
Mann-Kendall	
S	6.0000
SD of S	18.1842
Standardized S	0.2750
Approximate p-value	0.3917
Confidence Coefficient	0.9500
Red = Prediction Interval	
Green = Confidence Interval	

Classical Regression



OLS	
n	14
Slope	0.0001
Intercept	1.6689
R-sq	0.0839
R	0.2897
Scale Estimate	0.4550
P-value (Reg)	0.3151
P-value (Slope)	0.3151
Mann-Kendall	
S	-6.0000
SD of S	18.1842
Standardized S	-0.2750
Approximate p-value	0.3917
Confidence Coefficient	0.9500
Red = Prediction Interval	
Green = Confidence Interval	

Ground Cover Regression

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 1:20:57 PM								
4	From File			Ground regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Richness (S							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Pb							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	2.112	0.461	4.582	6.2979E-4							
25	Pb	0.00614	0.0024	2.562	0.0249							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			8.488	1	8.488	6.566	0.0249				
30	Error			15.51	12	1.293						
31	Total			24	13							
32												
33	R Square				0.354							
34	Adjusted R Square				0.3							
35	Sqrt(MSE) = Scale				1.137							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	4	2.349	1.651	1.453							
40	2	1	2.453	-1.453	-1.278							
41	3	1	2.495	-1.495	-1.315							
42	4	4	2.606	1.394	1.226							
43	5	2	2.644	-0.644	-0.566							
44	6	3	2.651	0.349	0.307							
45	7	2	2.658	-0.658	-0.579							
46	8	3	2.689	0.311	0.273							
47	9	2	2.782	-0.782	-0.687							
48	10	3	2.8	0.2	0.176							
49	11	4	3.113	0.887	0.78							
50	12	3	3.169	-0.169	-0.148							
51	13	6	4.403	1.597	1.404							
52	14	4	5.189	-1.189	-1.046							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 1:23:28 PM								
4	From File			Ground regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Shannon (H							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Pb							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	0.995	0.353	2.82	0.0155							
25	Pb	0.00478	0.00184	2.602	0.0231							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			5.131	1	5.131	6.77	0.0231				
30	Error			9.095	12	0.758						
31	Total			14.23	13							
32												
33	R Square				0.361							
34	Adjusted R Square				0.307							
35	Sqrt(MSE) = Scale				0.871							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	2.664	1.179	1.485	1.706							
40	2	0	1.26	-1.26	-1.448							
41	3	0	1.293	-1.293	-1.485							
42	4	1.966	1.379	0.587	0.674							
43	5	0.447	1.409	-0.961	-1.104							
44	6	2.023	1.414	0.609	0.699							
45	7	1.273	1.42	-0.147	-0.169							
46	8	2.079	1.444	0.635	0.73							
47	9	1.125	1.516	-0.391	-0.449							
48	10	1.278	1.53	-0.252	-0.29							
49	11	2.426	1.774	0.652	0.749							
50	12	2.079	1.817	0.263	0.302							
51	13	3.466	2.777	0.689	0.792							
52	14	2.773	3.388	-0.615	-0.707							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 1:23:42 PM								
4	From File			Ground regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Simpson (D							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Pb							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	0.691	0.0965	7.158	1.1508E-5							
25	Pb	-0.00112	5.0203E-4	-2.222	0.0463							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.28	1	0.28	4.936	0.0463				
30	Error			0.68	12	0.0567						
31	Total			0.96	13							
32												
33	R Square				0.291							
34	Adjusted R Square				0.232							
35	Sqrt(MSE) = Scale				0.238							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	0.28	0.648	-0.368	-1.546							
40	2	1	0.629	0.371	1.558							
41	3	1	0.621	0.379	1.59							
42	4	0.486	0.601	-0.115	-0.484							
43	5	0.889	0.594	0.295	1.238							
44	6	0.389	0.593	-0.204	-0.858							
45	7	0.556	0.592	-0.0363	-0.152							
46	8	0.375	0.586	-0.211	-0.887							
47	9	0.625	0.569	0.0556	0.234							
48	10	0.66	0.566	0.094	0.395							
49	11	0.344	0.509	-0.165	-0.695							
50	12	0.375	0.499	-0.124	-0.521							
51	13	0.188	0.275	-0.0874	-0.367							
52	14	0.25	0.132	0.118	0.495							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 1:23:57 PM								
4	From File			Ground regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Simpson (R							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Pb							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	1.428	0.369	3.875	0.00221							
25	Pb	0.00683	0.00192	3.561	0.00391							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			10.49	1	10.49	12.68	0.0039				
30	Error			9.923	12	0.827						
31	Total			20.41	13							
32												
33	R Square				0.514							
34	Adjusted R Square				0.473							
35	Sqrt(MSE) = Scale				0.909							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	3.571	1.691	1.88	2.068							
40	2	1	1.807	-0.807	-0.888							
41	3	1	1.854	-0.854	-0.939							
42	4	2.057	1.977	0.0799	0.0878							
43	5	1.125	2.02	-0.895	-0.984							
44	6	2.571	2.027	0.544	0.599							
45	7	1.8	2.035	-0.235	-0.259							
46	8	2.667	2.07	0.597	0.656							
47	9	1.6	2.173	-0.573	-0.63							
48	10	1.515	2.193	-0.678	-0.745							
49	11	2.909	2.541	0.368	0.404							
50	12	2.667	2.603	0.0639	0.0703							
51	13	5.333	3.975	1.358	1.494							
52	14	4	4.849	-0.849	-0.934							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 1:24:24 PM								
4	From File			Ground regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Richness (S							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Zn							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	3.002	0.465	6.46	3.1137E-5							
25	Zn	-1.874E-6	2.6126E-4	-0.00717	0.994							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			1.0287E-4	1	1.0287E-4	5.1434E-5	0.9944				
30	Error			24	12	2						
31	Total			24	13							
32												
33	R Square				4.2861E-6							
34	Adjusted R Square				0							
35	Sqrt(MSE) = Scale				1.414							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	3	3.002	-0.00192	-0.00136							
40	2	3	3.002	-0.00188	-0.00133							
41	3	1	3.002	-2.002	-1.416							
42	4	6	3.002	2.998	2.12							
43	5	4	3.002	0.998	0.706							
44	6	2	3.002	-1.002	-0.708							
45	7	2	3.002	-1.002	-0.708							
46	8	3	3.002	-0.00156	-0.00111							
47	9	4	3.001	0.999	0.706							
48	10	2	3.001	-1.001	-0.708							
49	11	3	2.998	0.0017	0.0012							
50	12	4	2.996	1.004	0.71							
51	13	1	2.995	-1.995	-1.411							
52	14	4	2.995	1.005	0.711							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 1:24:41 PM								
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5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Shannon (H							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Zn							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	1.749	0.356	4.908	3.6092E-4							
25	Zn	-6.132E-5	2.0037E-4	-0.306	0.765							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.11	1	0.11	0.0937	0.7648				
30	Error			14.12	12	1.176						
31	Total			14.23	13							
32												
33	R Square				0.00775							
34	Adjusted R Square				0							
35	Sqrt(MSE) = Scale				1.085							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	2.023	1.749	0.274	0.253							
40	2	1.278	1.747	-0.469	-0.433							
41	3	0	1.747	-1.747	-1.61							
42	4	3.466	1.746	1.72	1.586							
43	5	2.664	1.745	0.92	0.848							
44	6	1.273	1.743	-0.47	-0.433							
45	7	1.125	1.738	-0.613	-0.565							
46	8	2.079	1.737	0.343	0.316							
47	9	2.773	1.724	1.049	0.967							
48	10	0.447	1.719	-1.272	-1.173							
49	11	2.079	1.63	0.449	0.414							
50	12	2.426	1.539	0.887	0.817							
51	13	0	1.528	-1.528	-1.409							
52	14	1.966	1.509	0.457	0.422							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 1:24:58 PM								
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5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Simpson (D							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Zn							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	0.508	0.0923	5.502	1.3589E-4							
25	Zn	2.1091E-5	5.1904E-5	0.406	0.692							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.013	1	0.013	0.165	0.6916				
30	Error			0.947	12	0.0789						
31	Total			0.96	13							
32												
33	R Square				0.0136							
34	Adjusted R Square				0							
35	Sqrt(MSE) = Scale				0.281							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	0.389	0.508	-0.119	-0.424							
40	2	0.66	0.509	0.151	0.539							
41	3	1	0.509	0.491	1.749							
42	4	0.188	0.509	-0.322	-1.145							
43	5	0.28	0.509	-0.229	-0.817							
44	6	0.556	0.51	0.0454	0.162							
45	7	0.625	0.512	0.113	0.403							
46	8	0.375	0.512	-0.137	-0.488							
47	9	0.25	0.517	-0.267	-0.949							
48	10	0.889	0.518	0.371	1.321							
49	11	0.375	0.549	-0.174	-0.619							
50	12	0.344	0.58	-0.236	-0.841							
51	13	1	0.584	0.416	1.481							
52	14	0.486	0.591	-0.104	-0.372							

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 1:25:15 PM								
4	From File			Ground regr.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Simpson (R							
17	Number Reported (Y values)				14							
18	Independent Variable (x-data)				Zn							
19	Number Reported (x-values)				14							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	2.567	0.422	6.084	5.4644E-5							
25	Zn	-1.465E-4	2.3720E-4	-0.618	0.548							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.629	1	0.629	0.381	0.5484				
30	Error			19.78	12	1.649						
31	Total			20.41	13							
32												
33	R Square				0.0308							
34	Adjusted R Square				0							
35	Sqrt(MSE) = Scale				1.284							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	2.571	2.565	0.00595	0.00464							
40	2	1.515	2.562	-1.047	-0.815							
41	3	1	2.561	-1.561	-1.216							
42	4	5.333	2.558	2.775	2.161							
43	5	3.571	2.556	1.016	0.791							
44	6	1.8	2.551	-0.751	-0.585							
45	7	1.6	2.54	-0.94	-0.732							
46	8	2.667	2.538	0.129	0.1							
47	9	4	2.507	1.493	1.163							
48	10	1.125	2.496	-1.371	-1.068							
49	11	2.667	2.283	0.384	0.299							
50	12	2.909	2.066	0.843	0.657							
51	13	1	2.04	-1.04	-0.81							
52	14	2.057	1.993	0.0644	0.0502							

Classical Regression



OLS	
n	14
Slope	0.0061
Intercept	2.1120
R-sq	0.3536
R	0.5947
Scale Estimate	1.1370
P-value (Reg)	0.0249
P-value (Slope)	0.0249

Mann-Kendall	
S	33.0000
SD of S	17.6541
Standardized S	1.8126
Approximate p-value	0.0349

Confidence Coefficient	0.9500
------------------------	--------

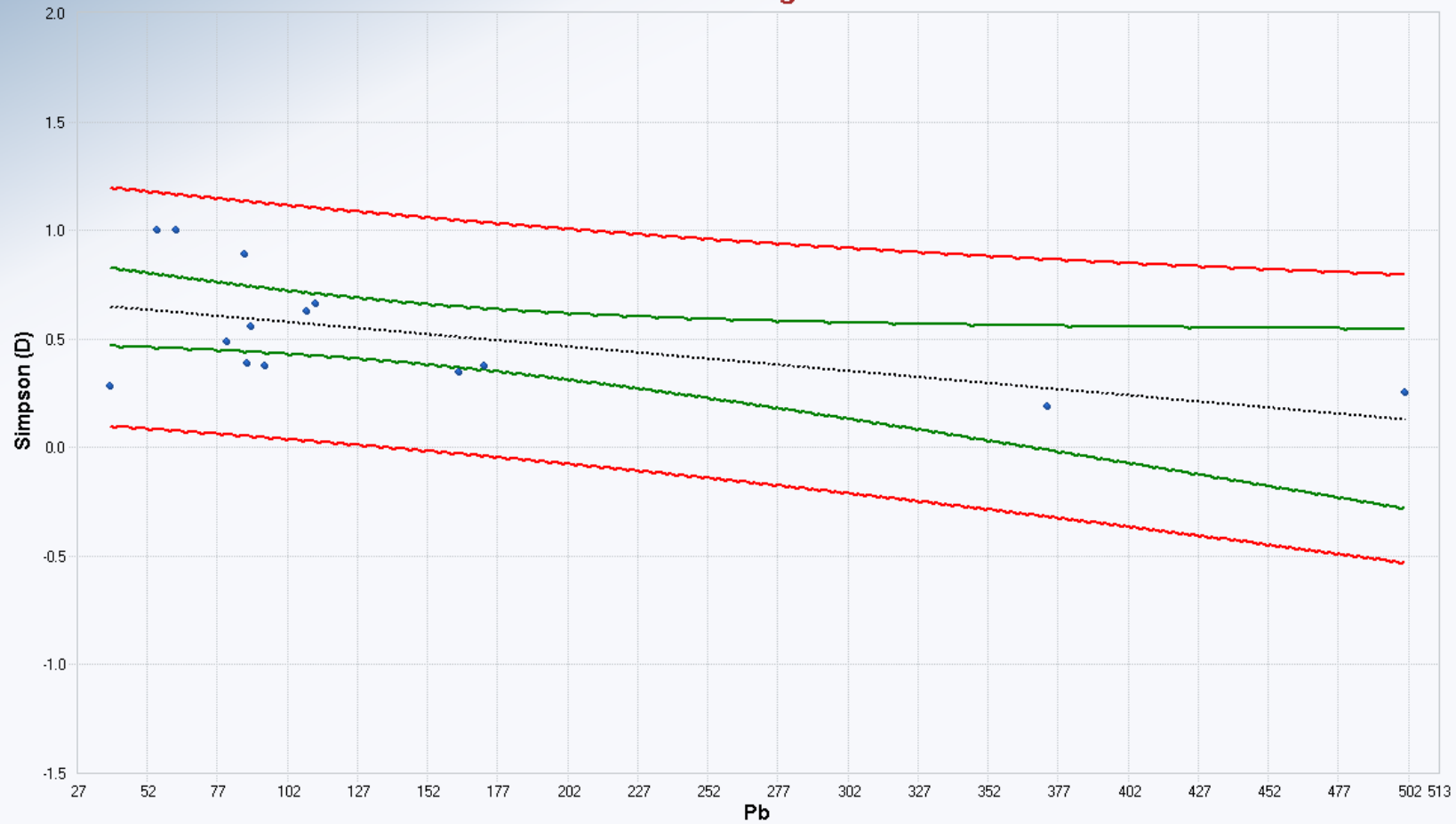
Red = Prediction Interval
Green = Confidence Interval

Classical Regression



OLS	
n	14
Slope	0.0048
Intercept	0.9953
R-sq	0.3607
R	0.6006
Scale Estimate	0.8706
P-value (Reg)	0.0231
P-value (Slope)	0.0231
Mann-Kendall	
S	43.0000
SD of S	18.2117
Standardized S	2.3062
Approximate p-value	0.0105
Confidence Coefficient	0.9500
Red = Prediction Interval	
Green = Confidence Interval	

Classical Regression



OLS	
n	14
Slope	-0.0011
Intercept	0.6910
R-sq	0.2915
R	-0.5399
Scale Estimate	0.2381
P-value (Reg)	0.0463
P-value (Slope)	0.0463
Mann-Kendall	
S	-39.0000
SD of S	18.2117
Standardized S	-2.0866
Approximate p-value	0.0185
Confidence Coefficient	0.9500
Red = Prediction Interval	
Green = Confidence Interval	

Classical Regression



OLS	
n	14
Slope	0.0068
Intercept	1.4283
R-sq	0.5138
R	0.7168
Scale Estimate	0.9094
P-value (Reg)	0.0039
P-value (Slope)	0.0039

Mann-Kendall	
S	39.0000
SD of S	18.2117
Standardized S	2.0866
Approximate p-value	0.0185

Confidence Coefficient 0.9500

Red = Prediction Interval
Green = Confidence Interval

Classical Regression



OLS	
n	14
Slope	0.0000
Intercept	3.0019
R-sq	0.0000
R	-0.0021
Scale Estimate	1.4142
P-value (Reg)	0.9944
P-value (Slope)	0.9944
Mann-Kendall	
S	3.0000
SD of S	17.6541
Standardized S	0.1133
Approximate p-value	0.4549
Confidence Coefficient	0.9500
Red = Prediction Interval	
Green = Confidence Interval	

Classical Regression



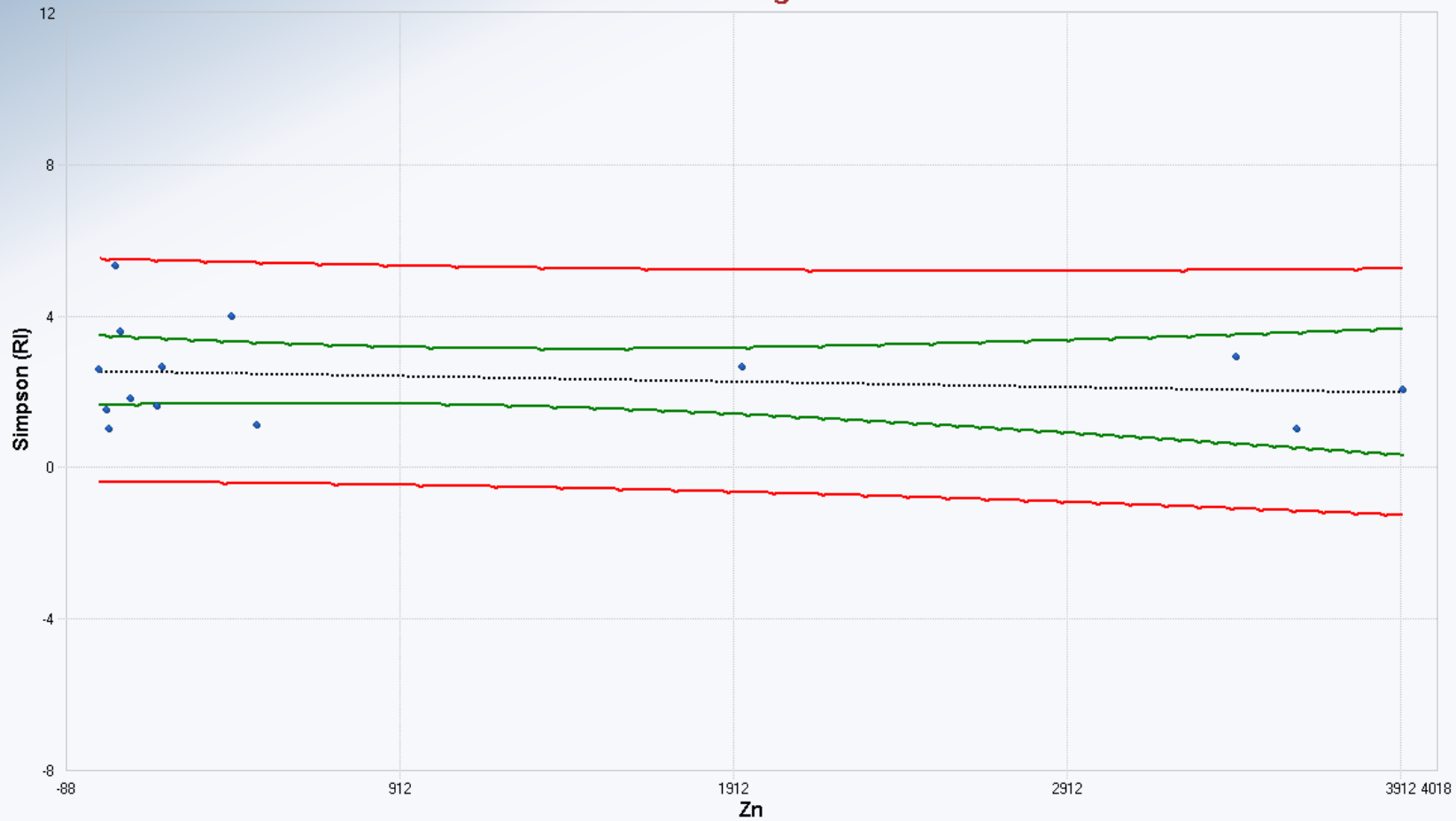
OLS	
n	14
Slope	-0.0001
Intercept	1.7491
R-sq	0.0077
R	-0.0880
Scale Estimate	1.0846
P-value (Reg)	0.7648
P-value (Slope)	0.7648
Mann-Kendall	
S	-7.0000
SD of S	18.2117
Standardized S	-0.3295
Approximate p-value	0.3709
Confidence Coefficient	0.9500
Red = Prediction Interval	
Green = Confidence Interval	

Classical Regression



OLS	
n	14
Slope	0.0000
Intercept	0.5079
R-sq	0.0136
R	0.1165
Scale Estimate	0.2810
P-value (Reg)	0.6916
P-value (Slope)	0.6916
Mann-Kendall	
S	3.0000
SD of S	18.2117
Standardized S	0.1098
Approximate p-value	0.4563
Confidence Coefficient	0.9500
Red = Prediction Interval	
Green = Confidence Interval	

Classical Regression



OLS	
n	14
Slope	-0.0001
Intercept	2.5670
R-sq	0.0308
R	-0.1755
Scale Estimate	1.2840
P-value (Reg)	0.5484
P-value (Slope)	0.5484
Mann-Kendall	
S	-3.0000
SD of S	18.2117
Standardized S	-0.1098
Approximate p-value	0.4563
Confidence Coefficient	0.9500
Red = Prediction Interval	
Green = Confidence Interval	

Invertebrate Abundance Regression

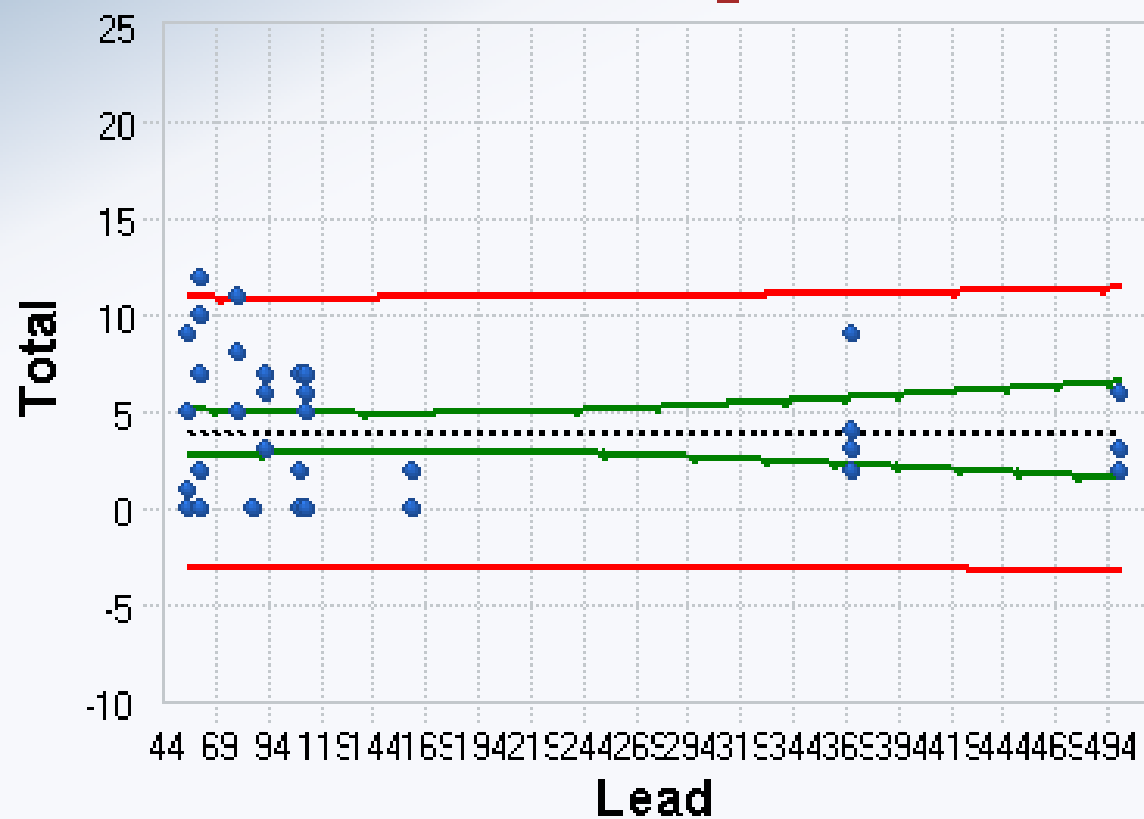
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2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:51:42 AM								
4	From File			Inverts.xls								
5	Full Precision			OFF								
6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Total							
17	Number Reported (Y values)				50							
18	Independent Variable (x-data)				Lead							
19	Number Reported (x-values)				50							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	3.879	0.738	5.256	3.3477E-6							
25	Lead	3.7205E-4	0.0034	0.109	0.913							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			0.14	1	0.14	0.012	0.9133				
30	Error			562.7	48	11.72						
31	Total			562.8	49							
32												
33	R Square				2.4939E-4							
34	Adjusted R Square				0							
35	Sqrt(MSE) = Scale				3.424							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	0	3.9	-3.9	-1.139							
40	2	1	3.9	-2.9	-0.847							
41	3	1	3.9	-2.9	-0.847							
42	4	5	3.9	1.1	0.321							
43	5	9	3.9	5.1	1.49							
44	6	0	3.902	-3.902	-1.14							
45	7	2	3.902	-1.902	-0.556							
46	8	7	3.902	3.098	0.905							
47	9	10	3.902	6.098	1.781							
48	10	12	3.902	8.098	2.365							
49	11	5	3.909	1.091	0.319							
50	12	5	3.909	1.091	0.319							
51	13	5	3.909	1.091	0.319							
52	14	8	3.909	4.091	1.195							

	A	B	C	D	E	F	G	H	I	J	K	L
53	15	11	3.909	7.091	2.071							
54	16	0	3.912	-3.912	-1.142							
55	17	0	3.912	-3.912	-1.142							
56	18	0	3.912	-3.912	-1.142							
57	19	0	3.912	-3.912	-1.142							
58	20	0	3.912	-3.912	-1.142							
59	21	3	3.914	-0.914	-0.267							
60	22	6	3.914	2.086	0.609							
61	23	6	3.914	2.086	0.609							
62	24	6	3.914	2.086	0.609							
63	25	7	3.914	3.086	0.901							
64	26	0	3.92	-3.92	-1.145							
65	27	2	3.92	-1.92	-0.561							
66	28	2	3.92	-1.92	-0.561							
67	29	2	3.92	-1.92	-0.561							
68	30	7	3.92	3.08	0.9							
69	31	0	3.921	-3.921	-1.145							
70	32	5	3.921	1.079	0.315							
71	33	6	3.921	2.079	0.607							
72	34	7	3.921	3.079	0.899							
73	35	7	3.921	3.079	0.899							
74	36	0	3.94	-3.94	-1.151							
75	37	0	3.94	-3.94	-1.151							
76	38	0	3.94	-3.94	-1.151							
77	39	2	3.94	-1.94	-0.567							
78	40	2	3.94	-1.94	-0.567							
79	41	2	4.018	-2.018	-0.589							
80	42	3	4.018	-1.018	-0.297							
81	43	4	4.018	-0.0178	-0.00521							
82	44	9	4.018	4.982	1.455							
83	45	9	4.018	4.982	1.455							
84	46	2	4.065	-2.065	-0.603							
85	47	2	4.065	-2.065	-0.603							
86	48	3	4.065	-1.065	-0.311							
87	49	6	4.065	1.935	0.565							
88	50	6	4.065	1.935	0.565							
89												

	A	B	C	D	E	F	G	H	I	J	K	L
1				Ordinary Least Squares Linear Regression Output Sheet								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.110/9/2022 11:52:03 AM								
4	From File			Inverts.xls								
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6												
7	Display Limits			False								
8	Display Regresion Diagnostics			False								
9	Display Regression Tables			True								
10	Title For Y vs X Plots			Classical Regression								
11	Confidence Level for Regression Line			0.95								
12	Display Confidence Band			True								
13	Display Prediction Band			True								
14												
15												
16	Dependendant Variable (Y-Data)				Total							
17	Number Reported (Y values)				50							
18	Independent Variable (x-data)				Zinc							
19	Number Reported (x-values)				50							
20												
21												
22	Regression Estimates and Inference Table											
23	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	3.546	0.593	5.979	2.7016E-7							
25	Zinc	3.3200E-4	2.9552E-4	1.123	0.267							
26												
27	OLS ANOVA Table											
28	Source of Variation			SS	DOF	MS	F-Value	P-Value				
29	Regression			14.42	1	14.42	1.262	0.2668				
30	Error			548.4	48	11.43						
31	Total			562.8	49							
32												
33	R Square				0.0256							
34	Adjusted R Square				0.00532							
35	Sqrt(MSE) = Scale				3.38							
36												
37	Regression Table											
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	0	3.549	-3.549	-1.05							
40	2	0	3.549	-3.549	-1.05							
41	3	0	3.549	-3.549	-1.05							
42	4	0	3.549	-3.549	-1.05							
43	5	0	3.549	-3.549	-1.05							
44	6	0	3.556	-3.556	-1.052							
45	7	5	3.556	1.444	0.427							
46	8	6	3.556	2.444	0.723							
47	9	7	3.556	3.444	1.019							
48	10	7	3.556	3.444	1.019							
49	11	0	3.559	-3.559	-1.053							
50	12	1	3.559	-2.559	-0.757							
51	13	1	3.559	-2.559	-0.757							
52	14	5	3.559	1.441	0.426							

	A	B	C	D	E	F	G	H	I	J	K	L
53	15	9	3.559	5.441	1.61							
54	16	2	3.565	-1.565	-0.463							
55	17	3	3.565	-0.565	-0.167							
56	18	4	3.565	0.435	0.129							
57	19	9	3.565	5.435	1.608							
58	20	9	3.565	5.435	1.608							
59	21	0	3.607	-3.607	-1.067							
60	22	2	3.607	-1.607	-0.475							
61	23	2	3.607	-1.607	-0.475							
62	24	2	3.607	-1.607	-0.475							
63	25	7	3.607	3.393	1.004							
64	26	3	3.612	-0.612	-0.181							
65	27	6	3.612	2.388	0.706							
66	28	6	3.612	2.388	0.706							
67	29	6	3.612	2.388	0.706							
68	30	7	3.612	3.388	1.002							
69	31	2	3.682	-1.682	-0.498							
70	32	2	3.682	-1.682	-0.498							
71	33	3	3.682	-0.682	-0.202							
72	34	6	3.682	2.318	0.686							
73	35	6	3.682	2.318	0.686							
74	36	0	4.681	-4.681	-1.385							
75	37	0	4.681	-4.681	-1.385							
76	38	0	4.681	-4.681	-1.385							
77	39	2	4.681	-2.681	-0.793							
78	40	2	4.681	-2.681	-0.793							
79	41	0	4.741	-4.741	-1.403							
80	42	2	4.741	-2.741	-0.811							
81	43	7	4.741	2.259	0.668							
82	44	10	4.741	5.259	1.556							
83	45	12	4.741	7.259	2.148							
84	46	5	4.847	0.153	0.0452							
85	47	5	4.847	0.153	0.0452							
86	48	5	4.847	0.153	0.0452							
87	49	8	4.847	3.153	0.933							
88	50	11	4.847	6.153	1.82							
89												

Classical Regression



OLS

n	50
Slope	0.0004
Intercept	3.8791
R-sq	0.0002
R	0.0158
Scale Estimate	3.4238
P-value (Reg)	0.9133
P-value (Slope)	0.9133

Mann-Kendall

S	49.0000
SD of S	117.9703
Standardized S	0.4069
Approximate p-value	0.3420

Classical Regression



OLS

n	50
Slope	0.0003
Intercept	3.5457
R-sq	0.0256
R	0.1601
Scale Estimate	3.3801
P-value (Reg)	0.2668
P-value (Slope)	0.2668

Mann-Kendall

S	293.0000
SD of S	117.9703
Standardized S	2.4752
Approximate p-value	0.0067

ATTACHMENT D

PHOTOGRAPHS OF SOIL INVERTEBRATES



Photo 1: Initial placement of 12-inch diameter metal cylinder



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 2: View after removal of surface debris



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 3: Initial placement of 12-inch diameter metal cylinder



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 4: View after removal of surface debris



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 5: Trowel, cylinder, and 2 earthworms in sample pit



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 6: Earthworms in sample pit



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 7: White pot worm in gloved hand



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 8: Four earthworms and one pot worm



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill

ATTACHMENT E

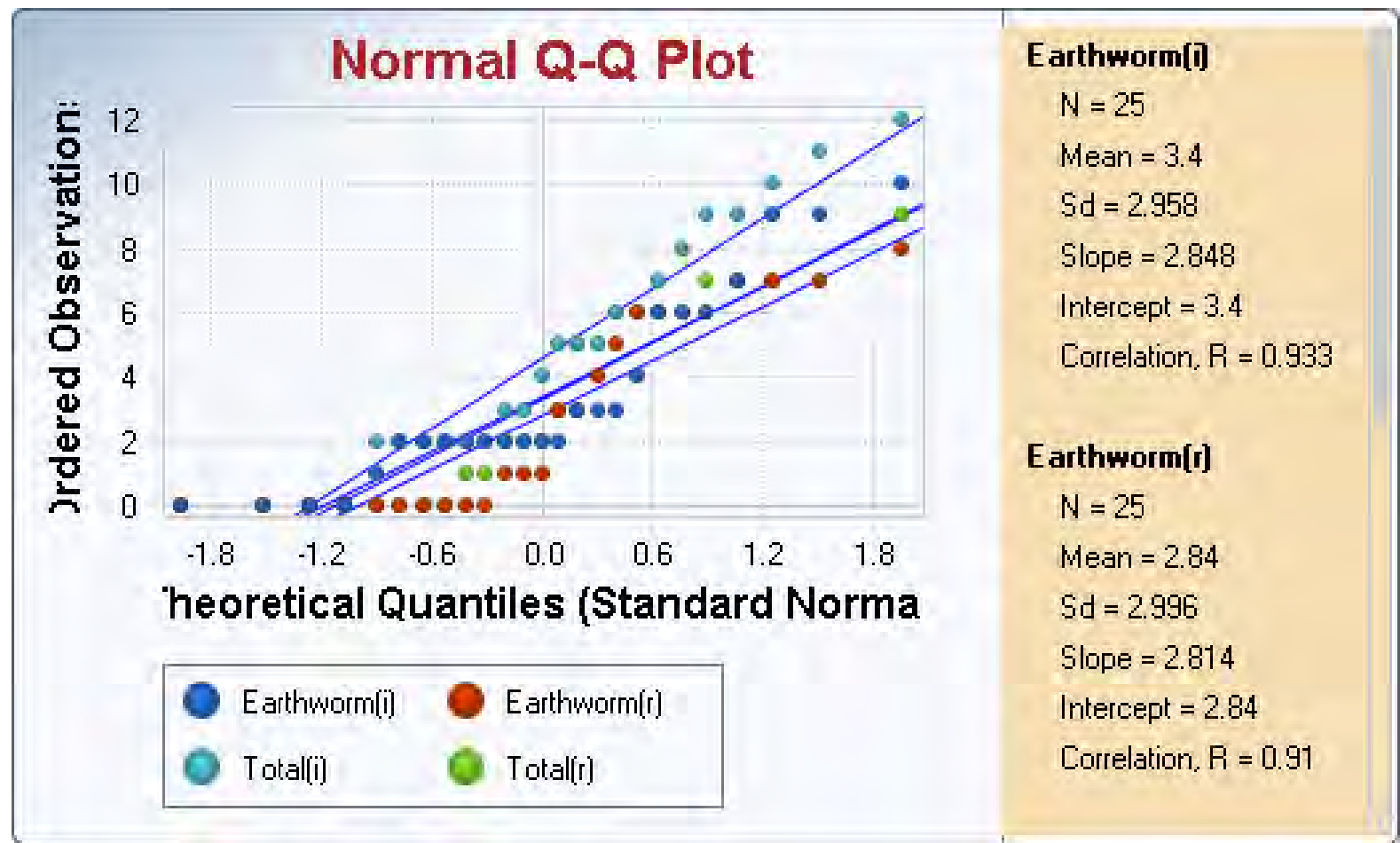
SOIL INVERTEBRATE STATISTICS – PROUCL OUTPUT

	A	B	C	D	E	F	G	H	I	J	K	L
1	Worm Goodness-of-fit (GOF) Tests											
2												
3				Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects								
4	User Selected Options											
5	Date/Time of Computation			ProUCL 5.110/2/2022 1:14:34 PM								
6	From File			Inverts.xls								
7	Full Precision			OFF								
8	Confidence Coefficient			0.95								
9												
10												
11	Earthworm (i)											
12												
13	Raw Statistics											
14	Number of Valid Observations					25						
15	Number of Distinct Observations					9						
16	Minimum					0						
17	Maximum					10						
18	Mean of Raw Data					3.4						
19	Standard Deviation of Raw Data					2.958						
20	Data contains values <= 0											
21	Data not gamma or lognormal											
22												
23	Normal GOF Test Results											
24												
25	Correlation Coefficient R					0.933						
26	Shapiro Wilk Test Statistic					0.86						
27	Shapiro Wilk Critical (0.05) Value					0.918						
28	Approximate Shapiro Wilk P Value					0.00225						
29	Lilliefors Test Statistic					0.242						
30	Lilliefors Critical (0.05) Value					0.173						
31	Data not Normal at (0.05) Significance Level											
32												
33	Non-parametric GOF Test Results											
34												
35	Data do not follow a discernible distribution at (0.05) Level of Significance											
36												
37	Earthworm (r)											
38												
39	Raw Statistics											
40	Number of Valid Observations					25						
41	Number of Distinct Observations					8						
42	Minimum					0						
43	Maximum					8						
44	Mean of Raw Data					2.84						
45	Standard Deviation of Raw Data					2.996						
46	Data contains values <= 0											
47	Data not gamma or lognormal											
48												
49	Normal GOF Test Results											
50												
51	Correlation Coefficient R					0.91						
52	Shapiro Wilk Test Statistic					0.807						

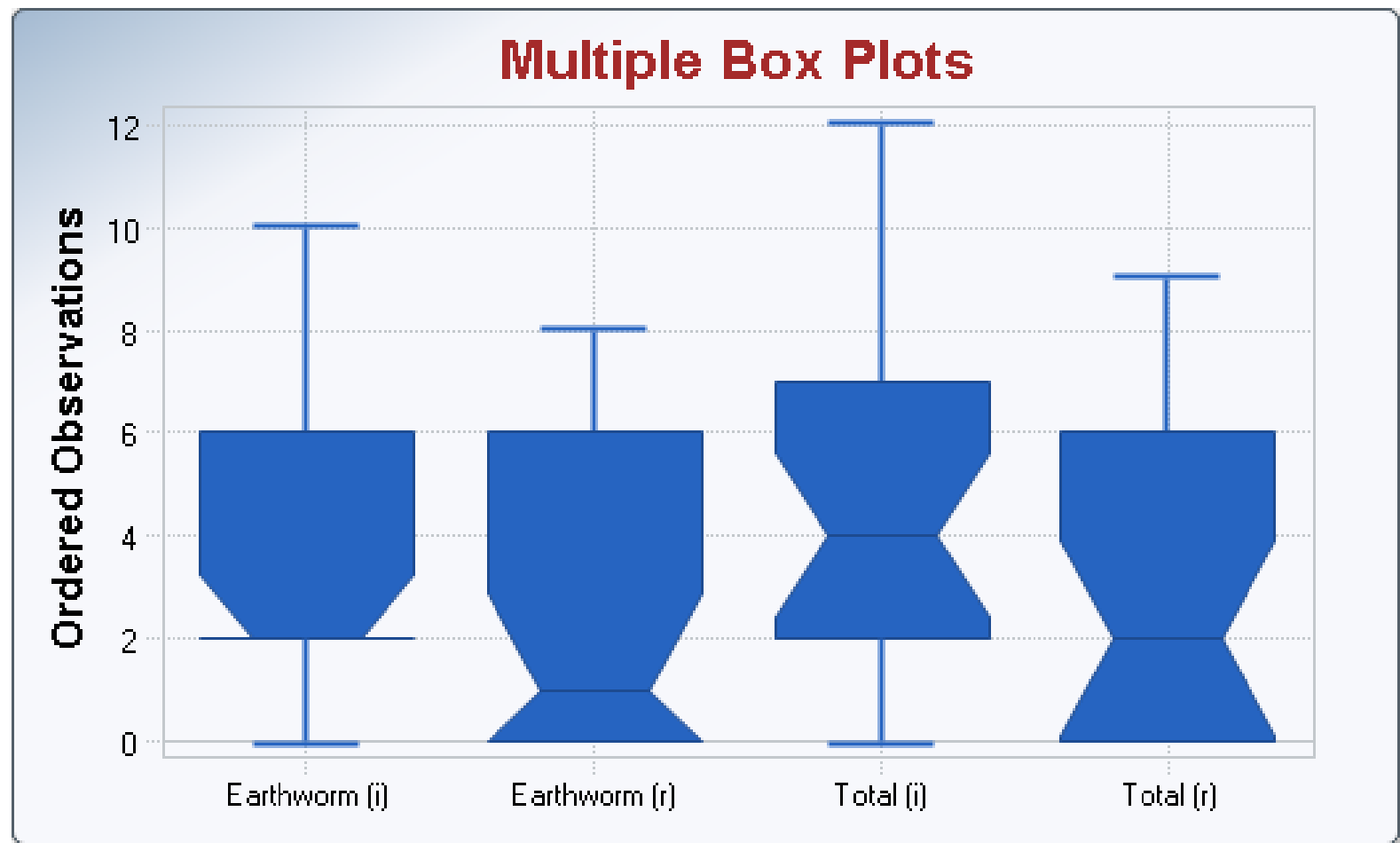
	A	B	C	D	E	F	G	H	I	J	K	L
53	Shapiro Wilk Critical (0.05) Value					0.918						
54	Approximate Shapiro Wilk P Value					1.8277E-4						
55	Lilliefors Test Statistic					0.25						
56	Lilliefors Critical (0.05) Value					0.173						
57	Data not Normal at (0.05) Significance Level											
58												
59	Non-parametric GOF Test Results											
60												
61	Data do not follow a discernible distribution at (0.05) Level of Significance											
62												
63	Total (i)											
64												
65	Raw Statistics											
66	Number of Valid Observations					25						
67	Number of Distinct Observations					12						
68	Minimum					0						
69	Maximum					12						
70	Mean of Raw Data					4.6						
71	Standard Deviation of Raw Data					3.629						
72	Data contains values <= 0											
73	Data not gamma or lognormal											
74												
75	Normal GOF Test Results											
76												
77	Correlation Coefficient R					0.969						
78	Shapiro Wilk Test Statistic					0.924						
79	Shapiro Wilk Critical (0.05) Value					0.918						
80	Approximate Shapiro Wilk P Value					0.0655						
81	Lilliefors Test Statistic					0.163						
82	Lilliefors Critical (0.05) Value					0.173						
83	Data appear Normal at (0.05) Significance Level											
84												
85	Total (r)											
86												
87	Raw Statistics											
88	Number of Valid Observations					25						
89	Number of Distinct Observations					8						
90	Minimum					0						
91	Maximum					9						
92	Mean of Raw Data					3.28						
93	Standard Deviation of Raw Data					3.062						
94	Data contains values <= 0											
95	Data not gamma or lognormal											
96												
97	Normal GOF Test Results											
98												
99	Correlation Coefficient R					0.932						
100	Shapiro Wilk Test Statistic					0.85						
101	Shapiro Wilk Critical (0.05) Value					0.918						
102	Approximate Shapiro Wilk P Value					0.0014						
103	Lilliefors Test Statistic					0.182						
104	Lilliefors Critical (0.05) Value					0.173						

	A	B	C	D	E	F	G	H	I	J	K	L
105	Data not Normal at (0.05) Significance Level											
106												
107	Non-parametric GOF Test Results											
108												
109	Data do not follow a discernible distribution at (0.05) Level of Significance											

Worm QQ Plots



Worm Box Plots



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Worm Summary Statistics												
2													
3				General Statistics on Uncensored Full Data									
4	Date/Time of Computation			ProUCL 5.110/2/2022 1:11:12 PM									
5	User Selected Options												
6	From File			Inverts.xls									
7	Full Precision			OFF									
8													
9	From File: Inverts.xls												
10													
11	General Statistics for Uncensored Data Sets												
12													
13	Variable		NumObs	# Missing	Minimum	Maximum	Mean	Geo-Mean	SD	SEM	MAD/0.675	Skewness	CV
14	Earthworm (i)		25	0	0	10	3.4	0	2.958	0.592	1.483	0.949	0.87
15	Earthworm (r)		25	0	0	8	2.84	0	2.996	0.599	1.483	0.41	1.055
16	Total (i)		25	0	0	12	4.6	0	3.629	0.726	2.965	0.522	0.789
17	Total (r)		25	0	0	9	3.28	0	3.062	0.612	2.965	0.27	0.934
18													
19	Percentiles for Uncensored Data Sets												
20													
21	Variable		NumObs	# Missing	10%ile	20%ile	25%ile(Q1)	50%ile(Q2)	75%ile(Q3)	80%ile	90%ile	95%ile	99%ile
22	Earthworm (i)		25	0	0	1.8	2	2	6	6	8.2	9	9.76
23	Earthworm (r)		25	0	0	0	0	1	6	6	7	7	7.76
24	Total (i)		25	0	0	2	2	4	7	8.2	9.6	10.8	11.76
25	Total (r)		25	0	0	0	0	2	6	6.2	7	7	8.52

	A	B	C	D	E	F	G	H	I	J	K	L
1	Worm Parametric ANOVA											
2												
3				Classical Oneway ANOVA								
4	Date/Time of Computation			ProUCL 5.110/2/2022 1:15:39 PM								
5	From File											
6	Full Precision			OFF								
7												
8												
9	Earthworm											
10												
11	Group		Obs	Mean	SD	Variance						
12	r		25	2.84	2.996	8.973						
13	i		25	3.4	2.958	8.75						
14	Grand Statistics (All data)		50	3.12	2.96	8.761						
15												
16	Classical One-Way Analysis of Variance Table											
17	Source	SS	DOF	MS	V.R.(F Stat)	P-Value						
18	Between Groups	3.92	1	3.92	0.442	0.509						
19	Within Groups	425.4	48	8.862								
20	Total	429.3	49									
21												
22	Pooled Standard Deviation		2.977									
23	R-Sq		0.00913									
24												
25	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
26	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
27	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
28												
29												
30	Total											
31												
32	Group		Obs	Mean	SD	Variance						
33	r		25	3.28	3.062	9.377						
34	i		25	4.6	3.629	13.17						
35	Grand Statistics (All data)		50	3.94	3.389	11.49						
36												
37	Classical One-Way Analysis of Variance Table											
38	Source	SS	DOF	MS	V.R.(F Stat)	P-Value						
39	Between Groups	21.78	1	21.78	1.932	0.171						
40	Within Groups	541	48	11.27								
41	Total	562.8	49									
42												
43	Pooled Standard Deviation		3.357									
44	R-Sq		0.0387									
45												
46	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
47	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
48	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
49												

	A	B	C	D	E	F	G	H	I	J	K	L
1	Worm Nonparametric ANOVA											
2												
3				Nonparametric Oneway ANOVA (Kruskal-Wallis Test)								
4	Date/Time of Computation			ProUCL 5.110/2/2022 1:16:41 PM								
5	From File			Inverts.xls								
6	Full Precision			OFF								
7												
8												
9	Earthworm											
10												
11	Group	Obs	Median	Ave Rank	Z							
12	i	25	2	27.42	0.931							
13	r	25	1	23.58	-0.931							
14	Overall	50	2	25.5								
15												
16	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)								
17	0.867	1	0.352									
18	0.896	1	0.344	(Adjusted for Ties)								
19												
20	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
21	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
22	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
23												
24												
25	Total											
26												
27	Group	Obs	Median	Ave Rank	Z							
28	i	25	4	28.08	1.251							
29	r	25	2	22.92	-1.251							
30	Overall	50	3	25.5								
31												
32	K-W (H-Stat)	DOF	P-Value	(Approx. Chisquare)								
33	1.566	1	0.211									
34	1.604	1	0.205	(Adjusted for Ties)								
35												
36	Note: A p-value <= 0.05 (or some other selected level) suggests that there are significant differences in											
37	mean/median characteristics of the various groups at 0.05 or other selected level of significance											
38	A p-value > 0.05 (or other selected level) suggests that mean/median characteristics of the various groups are comparable.											
39												

ATTACHMENT F

PHOTOGRAPHS OF DEPTH-SPECIFIC PLANT ROOT DENSITY



Photo 1: Root test pit at HA-02A



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill

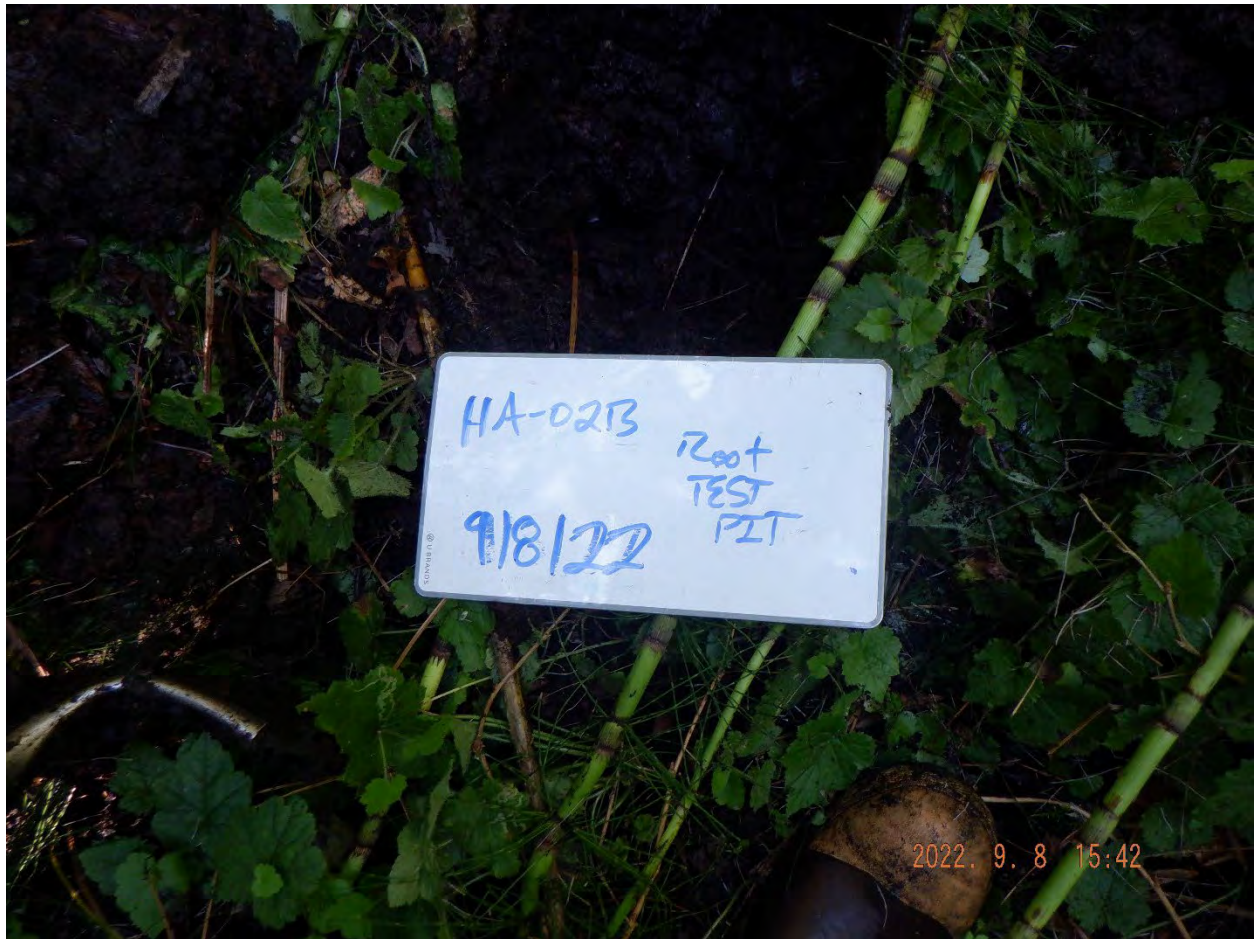


Photo 2: Root test pit at location HA-02B



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 3: Root test pit at location HA-02C



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 4: Root test pit at location HA-03B



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill



Photo 5: Root test pit at location near Camera 1



SITE PHOTOGRAPHS
September 8, 2022

Former Eatonville Landfill

ATTACHMENT G

EXPOSURE POINT CONCENTRATIONS – PROUCL OUTPUT

	A	B	C	D	E	F	G	H	I	J	K	L
1	95% Upper Confidence Limits about the Mean - Lead and Zinc											
2												
3	UCL Statistics for Uncensored Full Data Sets											
4												
5	User Selected Options											
6	Date/Time of Computation		ProUCL 5.110/10/2022 8:11:53 AM									
7	From File		Pb Zn 10082022.xls									
8	Full Precision		OFF									
9	Confidence Coefficient		95%									
10	Number of Bootstrap Operations		2000									
11												
12												
13	Lead											
14												
15	General Statistics											
16	Total Number of Observations				70		Number of Distinct Observations				69	
17							Number of Missing Observations				0	
18	Minimum				6.34		Mean				204.6	
19	Maximum				6000		Median				82.2	
20	SD				714.1		Std. Error of Mean				85.35	
21	Coefficient of Variation				3.491		Skewness				7.973	
22												
23	Normal GOF Test											
24	Shapiro Wilk Test Statistic				0.234		Shapiro Wilk GOF Test					
25	5% Shapiro Wilk P Value				0		Data Not Normal at 5% Significance Level					
26	Lilliefors Test Statistic				0.391		Lilliefors GOF Test					
27	5% Lilliefors Critical Value				0.106		Data Not Normal at 5% Significance Level					
28	Data Not Normal at 5% Significance Level											
29												
30	Assuming Normal Distribution											
31	95% Normal UCL					95% UCLs (Adjusted for Skewness)						
32	95% Student's-t UCL				346.9		95% Adjusted-CLT UCL (Chen-1995)				431.9	
33							95% Modified-t UCL (Johnson-1978)				360.4	
34												
35	Gamma GOF Test											
36	A-D Test Statistic				3.405		Anderson-Darling Gamma GOF Test					
37	5% A-D Critical Value				0.806		Data Not Gamma Distributed at 5% Significance Level					
38	K-S Test Statistic				0.183		Kolmogorov-Smirnov Gamma GOF Test					
39	5% K-S Critical Value				0.112		Data Not Gamma Distributed at 5% Significance Level					
40	Data Not Gamma Distributed at 5% Significance Level											
41												
42	Gamma Statistics											
43	k hat (MLE)				0.609		k star (bias corrected MLE)				0.593	
44	Theta hat (MLE)				335.8		Theta star (bias corrected MLE)				345.2	
45	nu hat (MLE)				85.3		nu star (bias corrected)				82.98	
46	MLE Mean (bias corrected)				204.6		MLE Sd (bias corrected)				265.7	
47						Approximate Chi Square Value (0.05)				62.98		
48	Adjusted Level of Significance				0.0466		Adjusted Chi Square Value				62.62	
49												
50	Assuming Gamma Distribution											
51	95% Approximate Gamma UCL (use when n>=50))				269.5		95% Adjusted Gamma UCL (use when n<50)				271.1	
52												

	A	B	C	D	E	F	G	H	I	J	K	L
53	Lognormal GOF Test											
54	Shapiro Wilk Test Statistic					0.968	Shapiro Wilk Lognormal GOF Test					
55	5% Shapiro Wilk P Value					0.188	Data appear Lognormal at 5% Significance Level					
56	Lilliefors Test Statistic					0.0635	Lilliefors Lognormal GOF Test					
57	5% Lilliefors Critical Value					0.106	Data appear Lognormal at 5% Significance Level					
58	Data appear Lognormal at 5% Significance Level											
59												
60	Lognormal Statistics											
61	Minimum of Logged Data					1.847	Mean of logged Data					4.309
62	Maximum of Logged Data					8.7	SD of logged Data					1.255
63												
64	Assuming Lognormal Distribution											
65	95% H-UCL					223.6	90% Chebyshev (MVUE) UCL					252.5
66	95% Chebyshev (MVUE) UCL					294.2	97.5% Chebyshev (MVUE) UCL					352.1
67	99% Chebyshev (MVUE) UCL					465.7						
68												
69	Nonparametric Distribution Free UCL Statistics											
70	Data appear to follow a Discernible Distribution at 5% Significance Level											
71												
72	Nonparametric Distribution Free UCLs											
73	95% CLT UCL					345	95% Jackknife UCL					346.9
74	95% Standard Bootstrap UCL					341.4	95% Bootstrap-t UCL					908.7
75	95% Hall's Bootstrap UCL					869.3	95% Percentile Bootstrap UCL					366.2
76	95% BCA Bootstrap UCL					517.4						
77	90% Chebyshev(Mean, Sd) UCL					460.6	95% Chebyshev(Mean, Sd) UCL					576.6
78	97.5% Chebyshev(Mean, Sd) UCL					737.6	99% Chebyshev(Mean, Sd) UCL					1054
79												
80	Suggested UCL to Use											
81	95% H-UCL					223.6						
82												
83	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
84	Recommendations are based upon data size, data distribution, and skewness.											
85	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
86	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
87												
88	ProUCL computes and outputs H-statistic based UCLs for historical reasons only.											
89	H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.											
90	It is therefore recommended to avoid the use of H-statistic based 95% UCLs.											
91	Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.											
92												
93												
94	Zinc											
95												
96	General Statistics											
97	Total Number of Observations					70	Number of Distinct Observations					68
98							Number of Missing Observations					0
99	Minimum					10.1	Mean					805.7
100	Maximum					13346	Median					77.47
101	SD					1907	Std. Error of Mean					227.9
102	Coefficient of Variation					2.367	Skewness					4.682
103												
104	Normal GOF Test											

	A	B	C	D	E	F	G	H	I	J	K	L	
105	Shapiro Wilk Test Statistic					0.475	Shapiro Wilk GOF Test						
106	5% Shapiro Wilk P Value					0	Data Not Normal at 5% Significance Level						
107	Lilliefors Test Statistic					0.338	Lilliefors GOF Test						
108	5% Lilliefors Critical Value					0.106	Data Not Normal at 5% Significance Level						
109	Data Not Normal at 5% Significance Level												
110													
111	Assuming Normal Distribution												
112	95% Normal UCL					95% UCLs (Adjusted for Skewness)							
113	95% Student's-t UCL					1186	95% Adjusted-CLT UCL (Chen-1995)					1317	
114							95% Modified-t UCL (Johnson-1978)					1207	
115													
116	Gamma GOF Test												
117	A-D Test Statistic					4.913	Anderson-Darling Gamma GOF Test						
118	5% A-D Critical Value					0.846	Data Not Gamma Distributed at 5% Significance Level						
119	K-S Test Statistic					0.212	Kolmogorov-Smirnov Gamma GOF Test						
120	5% K-S Critical Value					0.114	Data Not Gamma Distributed at 5% Significance Level						
121	Data Not Gamma Distributed at 5% Significance Level												
122													
123	Gamma Statistics												
124	k hat (MLE)					0.38	k star (bias corrected MLE)					0.373	
125	Theta hat (MLE)					2121	Theta star (bias corrected MLE)					2159	
126	nu hat (MLE)					53.18	nu star (bias corrected)					52.24	
127	MLE Mean (bias corrected)					805.7	MLE Sd (bias corrected)					1319	
128							Approximate Chi Square Value (0.05)					36.64	
129	Adjusted Level of Significance					0.0466	Adjusted Chi Square Value					36.36	
130													
131	Assuming Gamma Distribution												
132	95% Approximate Gamma UCL (use when n>=50))					1149	95% Adjusted Gamma UCL (use when n<50)					1158	
133													
134	Lognormal GOF Test												
135	Shapiro Wilk Test Statistic					0.897	Shapiro Wilk Lognormal GOF Test						
136	5% Shapiro Wilk P Value					3.4852E-6	Data Not Lognormal at 5% Significance Level						
137	Lilliefors Test Statistic					0.171	Lilliefors Lognormal GOF Test						
138	5% Lilliefors Critical Value					0.106	Data Not Lognormal at 5% Significance Level						
139	Data Not Lognormal at 5% Significance Level												
140													
141	Lognormal Statistics												
142	Minimum of Logged Data					2.313	Mean of logged Data					4.945	
143	Maximum of Logged Data					9.499	SD of logged Data					1.86	
144													
145	Assuming Lognormal Distribution												
146	95% H-UCL					1456	90% Chebyshev (MVUE) UCL					1476	
147	95% Chebyshev (MVUE) UCL					1808	97.5% Chebyshev (MVUE) UCL					2269	
148	99% Chebyshev (MVUE) UCL					3174							
149													
150	Nonparametric Distribution Free UCL Statistics												
151	Data do not follow a Discernible Distribution (0.05)												
152													
153	Nonparametric Distribution Free UCLs												
154	95% CLT UCL					1181	95% Jackknife UCL					1186	
155	95% Standard Bootstrap UCL					1181	95% Bootstrap-t UCL					1464	
156	95% Hall's Bootstrap UCL					2643	95% Percentile Bootstrap UCL					1217	

APPENDIX E

Geotechnical Laboratory Reports

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



REPORT NUMBER: 21-273-040

CLIENT NO: 1180-D

SEND TO: GREENFIELD GEOTECHNICAL
7085 SW SCHOLLS FRY
BEAVERTON, OR 97008

SUBMITTED BY: MELANI BANKS

CUSTOMER:

LAB NO: 23311

DATE: 10/07/2021

ORGANIC FERTILIZER REPORT

PAGE: 1

SAMPLE ID	REPORT OF ANALYSIS IN PERCENT									REPORT OF ANALYSIS IN PARTS PER MILLION						
	Nitrogen N	Phosphorus P	Phosphate P ₂ O ₅	Potassium K	Potash K ₂ O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn		
SB-17																

SAMPLE ID	POUNDS OF NUTRIENTS / TON															
	Nitrogen N	Phosphorus P	Phosphate P ₂ O ₅	Potassium K	Potash K ₂ O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn		
SB-17																

☐ Reported on an as-received basis Moisture = Organic Matter = 10.42 %
☒ Reported on a dry basis Moisture = 21.06%

Remarks: To convert to pounds of nutrients/ton as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

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This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.


Kathryn Butterfield-Byrne
A & L WESTERN LABORATORIES, INC.

A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



REPORT NUMBER: 21-273-040

CLIENT NO: 1180-D

SEND TO: GREENFIELD GEOTECHNICAL
7085 SW SCHOLLS FRY
BEAVERTON, OR 97008

SUBMITTED BY: MELANI BANKS

CUSTOMER:

LAB NO: 23312 DATE: 10/07/2021

ORGANIC FERTILIZER REPORT

PAGE: 2

SAMPLE ID	REPORT OF ANALYSIS IN PERCENT									REPORT OF ANALYSIS IN PARTS PER MILLION						
	Nitrogen N	Phosphorus P	Phosphate P ₂ O ₅	Potassium K	Potash K ₂ O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn		
CM-B1 *																

SAMPLE ID	POUNDS OF NUTRIENTS / TON															
	Nitrogen N	Phosphorus P	Phosphate P ₂ O ₅	Potassium K	Potash K ₂ O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn		
CM-B1 *																

☐ Reported on an as-received basis Moisture = Organic Matter = 23.08 %

☒ Reported on a dry basis Moisture = 34.61%

Remarks: To convert to pounds of nutrients/ton as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

*Composite sample from boring B-1

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This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.


Kathryn Butterfield-Byrne
A & L WESTERN LABORATORIES, INC.



10240 SW Nimbus Ave., Suite L6
Portland, Oregon 97223
(503) 616-9419
www.centralgeotech.com

[illegible]

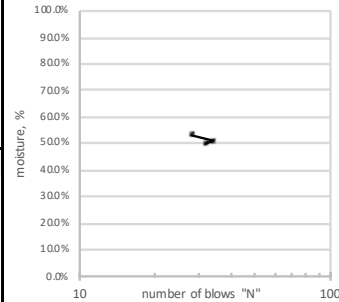
ATTERBERG LIMITS REPORT

PROJECT Greenfield-Eatonville	CLIENT Greenfield-Eatonville	PROJECT NO. 21-118	LAB ID B-1 20'
		REPORT DATE 10/8/21	FIELD ID B-1 20'
		DATE SAMPLED 9/28/21	SAMPLED BY MG

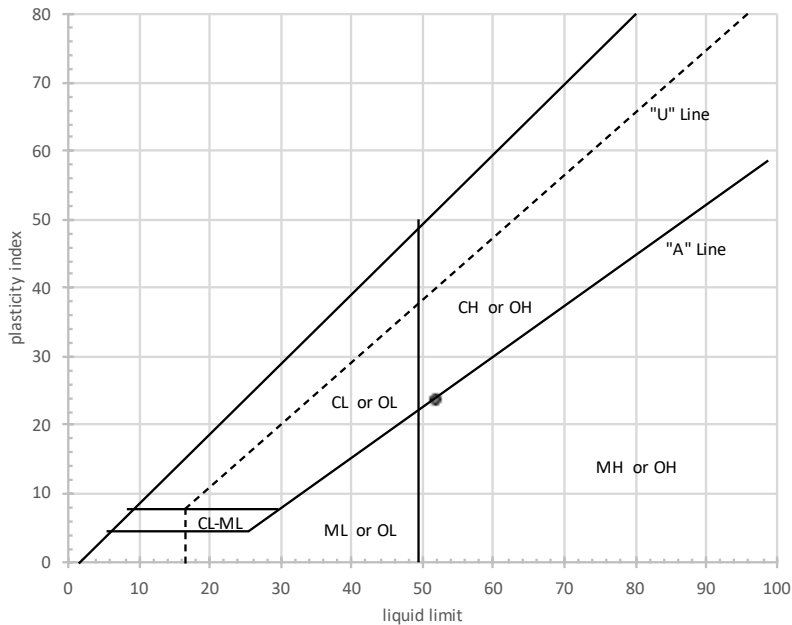
MATERIAL DATA

MATERIAL SAMPLED	MATERIAL SOURCE Boring B-1 at 20 feet	USCS SOIL TYPE Elastic SILT (ML)
------------------	--	-------------------------------------

LABORATORY TEST DATA

METHOD		TEST PROCEDURE				
Wet preparation, Method A - Multipoint		ASTM D4318 & D2216				
ATTERBERG LIMITS	LIQUID LIMIT DETERMINATION				<div>LIQUID LIMIT</div> 	
		1	2	3		
liquid limit =	52	wet soil + pan mass, g =	8.5	9.6	10.2	10.3
plastic limit =	29	dry soil + pan mass, g =	5.8	6.5	6.8	6.9
plasticity index =	23	pan mass =	0.4	0.4	0.4	0.4
		N (blows) =	32	34	28	31
		moisture, % =	50.0%	50.8%	53.1%	52.3%
SHRINKAGE	PLASTIC LIMIT DETERMINATION					
		1	2	3	4	
shrinkage limit =		wet soil + pan mass, g =	7.1	9.3	8.5	9.3
shrinkage ratio =		dry soil + pan mass, g =	5.6	7.3	6.6	7.4
		pan mass, g =	0.4	0.4	0.4	0.4
		moisture, % =	28.8%	29.0%	30.6%	27.1%

PLASTICITY CHART



ADDITIONAL DATA

% gravel =
 % sand =
 % silt and clay = 83.6
 % silt =
 % clay =
 moisture content =

DATE TESTED 10/6/21	TESTED BY LMB
------------------------	------------------



CENTRAL

GEOTECHNICAL SERVICES, LLC

CENTRAL GEOTECHNICAL SERVICES LLC

10240 SW Nimbus Ave., Suite L6

Portland, Oregon 97223

(503) 616-9419

MOISTURE CONTENT and DRY DENSITY: ASTM D 2216 & D 2937											
Project Name:		Greenfield- Eatonville						Date:	10/5/21		
Project Number:		21-118						Tech:	LMB		
B/TP No.	S#	Sample Type	Depth (ft)	Pan	Tare (g)	Wet + PAN (g)	Dry + PAN (g)	Moisture (%)	Diameter (in)	Length (in)	DDensity (pcf)
PZ-1	*		5.0		0.8	74.2	71.5	3.8			
PZ-2	*		1.5		0.8	73.5	70.9	3.7			
B-1			15.0		429.4	567.2	549.6	14.6			
B-1			20.0		0.8	20.1	15.6	30.4			
B-1			25.0		0.8	40.2	34.0	18.7			
SB-10			0.0		0.8	57.8	56.3	2.7			
SB-10			25.0		0.8	49.1	43.9	12.1			
SB-10			45.0		0.8	62.5	52.6	19.1			
SB-14			5.0		0.8	35.3	33.5	5.5			
SB-16			15.0		0.8	46.7	41.5	12.8			
SB-17			25.0		0.8	62.5	59.3	5.5			
SB-17			40.0		0.8	22.1	16.2	38.3			

*these samples correspond to boring logs B-2 and B-3, respectively

PARTICLE-SIZE ANALYSIS REPORT

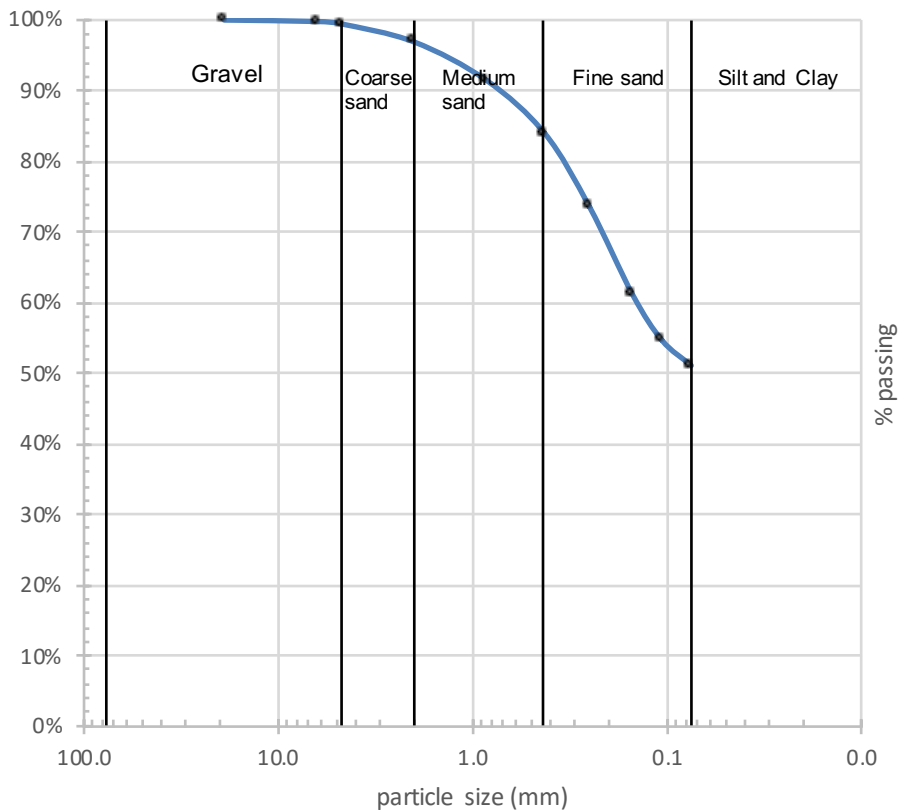
PROJECT Greenfield-Eatonville	CLIENT Greenfield-Eatonville	PROJECT NO. 21-118	LAB ID B-1 @ 25'
		REPORT DATE 10-Oct-21	FIELD ID B-1 @ 25'
		DATE SAMPLED 28-Sep-21	SAMPLED BY MG

MATERIAL DATA

MATERIAL SAMPLED B-1 @ 25'	MATERIAL SOURCE B-1 @ 25'	USCS SOIL TYPE Sandy SILT (SM)
SPECIFICATIONS		AASHTO SOIL TYPE

LABORATORY TEST DATA

LABORATORY EQUIPMENT					TEST PROCEDURE						
Humboldt Standard Sieves - Auto Shaker - Wet Sieve					ASTM C136 AND D1140						
ADDITIONAL DATA					SIEVE DATA						
initial dry mass (g) =		386.9							% gravel =		0.5%
as-received moisture content =					coefficient of curvature		C _c =		% sand =		48.4%
liquid limit =		0			coefficient of uniformity		C _u =		% silt and clay =		51%
plastic limit =		0			effective size (mm)		D ₍₁₀₎ =				
plasticity index =		0					D ₍₃₀₎ =				
fineness modulus =							D ₍₆₀₎ =				
fines check =		51.1%					D ₍₉₀₎ =				
					SIEVE SIZE		PERCENT PASSING				
					US mm		mass (g)		Indiv %		Cumul % % Pass



GRAVEL	6.00"	150.0		0%	0%	100%
	4.00"	100.0		0%	0%	100%
	3.00"	75.0		0%	0%	100%
	2.50"	63.0		0%	0%	100%
	2.00"	50.0		0%	0%	100%
	1.75"	45.0		0%	0%	100%
	1.50"	37.5		0%	0%	100%
	1.25"	31.5		0%	0%	100%
	1.00"	25.0		0%	0%	100%
	7/8"	22.4		0%	0%	100%
	3/4"	19.0		0%	0%	100%
	5/8"	16.0				
	1/2"	12.5				
	3/8"	9.50				
	1/4"	6.30	0.80	0%	0%	100%
	#4	4.75	1.30	0%	1%	99%
SAND	#8	2.36				
	#10	2.00	9.90	2.56%	3%	97%
	#16	1.18				
	#20	0.850	21.00	5.43%	9%	91%
	#30	0.600				
	#40	0.425	29	7.55%	16%	84%
	#50	0.300				
	#60	0.250	40.30	10.42%	26%	74%
	#80	0.180				
	#100	0.150	48.10	12.43%	39%	61%
	#140	0.106	24.90	6.44%	45%	55%
	#170	0.900				
	#200	0.075	13.80	3.57%	49%	51%
DATE TESTED	5-Oct-21		TESTED BY	LMB		

PARTICLE-SIZE ANALYSIS REPORT

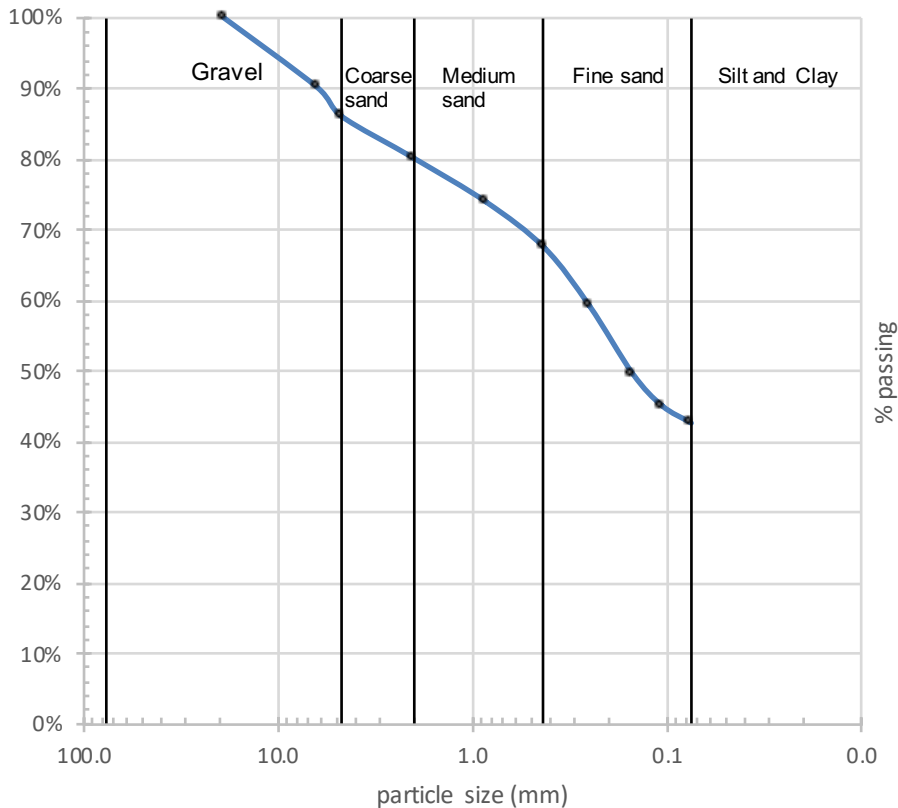
PROJECT Greenfield-Eatonville	CLIENT Greenfield-Eatonville	PROJECT NO. 21-118	LAB ID SB-10 @ 25'
		REPORT DATE 10-Oct-21	FIELD ID SB-10 @ 25'
		DATE SAMPLED 28-Sep-21	SAMPLED BY MG

MATERIAL DATA

MATERIAL SAMPLED SB-10 @ 25'	MATERIAL SOURCE SB-10 @ 25'	USCS SOIL TYPE Silty/Clayey SAND (SC-SM)
SPECIFICATIONS		AASHTO SOIL TYPE

LABORATORY TEST DATA

LABORATORY EQUIPMENT					TEST PROCEDURE									
Humboldt Standard Sieves - Auto Shaker - Wet Sieve					ASTM C136 AND D1140									
ADDITIONAL DATA					SIEVE DATA									
initial dry mass (g) =		435.4							% gravel =		13.9%			
as-received moisture content =					coefficient of curvature		C _c =				% sand =		43.5%	
liquid limit =		0			coefficient of uniformity		C _u =				% silt and clay =		43%	
plastic limit =		0			effective size (mm)		D ₍₁₀₎ =							
plasticity index =		0					D ₍₃₀₎ =							
fineness modulus =							D ₍₆₀₎ =							
fines check =		42.7%					D ₍₉₀₎ =							
					SIEVE SIZE				PERCENT PASSING					
					US		mm		mass (g)		Indiv %		Cumul %	
													% Pass	



GRAVEL	6.00"	150.0		0%	0%	100%
	4.00"	100.0		0%	0%	100%
	3.00"	75.0		0%	0%	100%
	2.50"	63.0		0%	0%	100%
	2.00"	50.0		0%	0%	100%
	1.75"	45.0		0%	0%	100%
	1.50"	37.5		0%	0%	100%
	1.25"	31.5		0%	0%	100%
	1.00"	25.0		0%	0%	100%
	7/8"	22.4		0%	0%	100%
	3/4"	19.0		0%	0%	100%
	5/8"	16.0				
	1/2"	12.5				
	3/8"	9.50				
	1/4"	6.30	42.80	10%	10%	90%
	#4	4.75	17.60	4%	14%	86%
SAND	#8	2.36				
	#10	2.00	26.10	5.99%	20%	80%
	#16	1.18				
	#20	0.850	27.00	6.20%	26%	74%
	#30	0.600				
	#40	0.425	28	6.52%	33%	67%
	#50	0.300				
	#60	0.250	35.70	8.20%	41%	59%
	#80	0.180				
	#100	0.150	41.70	9.58%	50%	50%
	#140	0.106	19.70	4.52%	55%	45%
	#170	0.900				
	#200	0.075	10.70	2.46%	57%	43%
DATE TESTED	5-Oct-21		TESTED BY	LMB		

PARTICLE-SIZE ANALYSIS REPORT

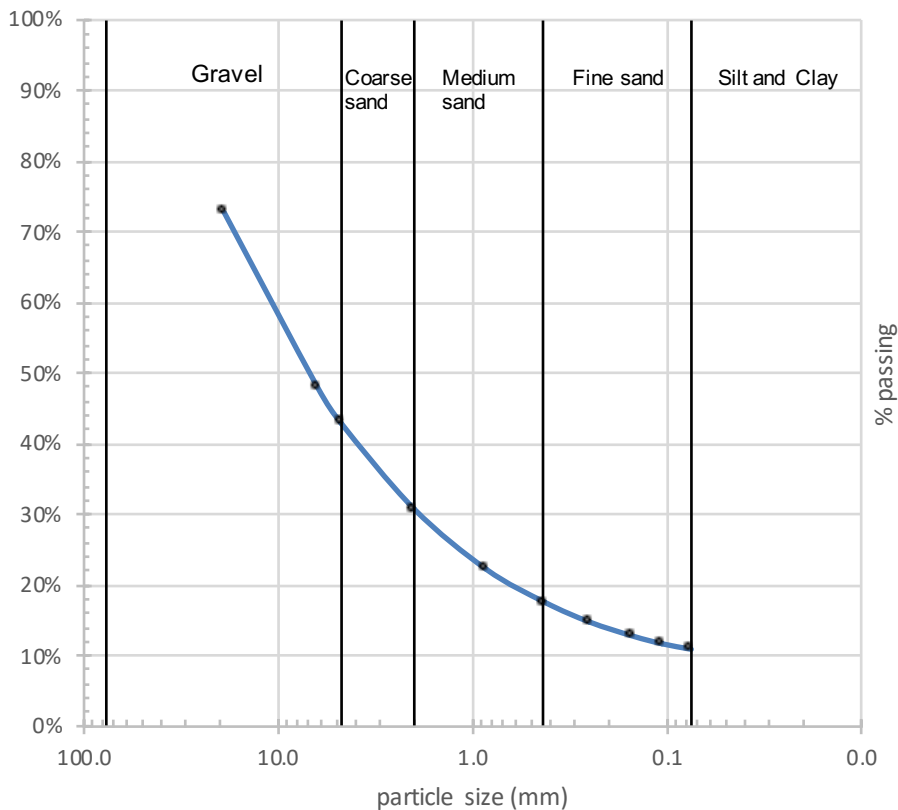
PROJECT Greenfield-Eatonville	CLIENT Greenfield-Eatonville	PROJECT NO. 21-118	LAB ID SB-14 @ 5'
		REPORT DATE 10-Oct-21	FIELD ID SB-14 @ 5'
		DATE SAMPLED 28-Sep-21	SAMPLED BY MG

MATERIAL DATA

MATERIAL SAMPLED SB-14 @ 5'	MATERIAL SOURCE SB-14 @ 5'	USCS SOIL TYPE GRAVEL with sand and silt (GW)
SPECIFICATIONS		AASHTO SOIL TYPE

LABORATORY TEST DATA

LABORATORY EQUIPMENT					TEST PROCEDURE				
Humboldt Standard Sieves - Auto Shaker - Wet Sieve					ASTM C136 AND D1140				
ADDITIONAL DATA					SIEVE DATA				
initial dry mass (g) =		422.5					% gravel = 57.1%		
as-received moisture content =					coefficient of curvature C _c =		% sand = 32.0%		
liquid limit =		0			coefficient of uniformity C _u =		% silt and clay = 11%		
plastic limit =		0			effective size (mm) D ₍₁₀₎ =				
plasticity index =		0			D ₍₃₀₎ =		2.0		
fineness modulus =					D ₍₆₀₎ =		11.0		
fines check =		10.9%			D ₍₉₀₎ =				
					SIEVE SIZE		PERCENT PASSING		
					US mm		mass (g) Indiv % Cumul % % Pass		



GRAVEL	6.00"	150.0		0%	0%	100%
	4.00"	100.0		0%	0%	100%
	3.00"	75.0		0%	0%	100%
	2.50"	63.0		0%	0%	100%
	2.00"	50.0		0%	0%	100%
	1.75"	45.0		0%	0%	100%
	1.50"	37.5		0%	0%	100%
	1.25"	31.5		0%	0%	100%
	1.00"	25.0		0%	0%	100%
	7/8"	22.4		0%	0%	100%
	3/4"	19.0	115.10	27%	27%	73%
	5/8"	16.0				
	1/2"	12.5				
	3/8"	9.50				
	1/4"	6.30	104.40	25%	52%	48%
	#4	4.75	21.70	5%	57%	43%
SAND	#8	2.36				
	#10	2.00	51.30	12.14%	69%	31%
	#16	1.18				
	#20	0.850	36.10	8.54%	78%	22%
	#30	0.600				
	#40	0.425	20	4.66%	82%	18%
	#50	0.300				
	#60	0.250	11.80	2.79%	85%	15%
	#80	0.180				
	#100	0.150	8.40	1.99%	87%	13%
	#140	0.106	4.60	1.09%	88%	12%
	#170	0.900				
	#200	0.075	3.30	0.78%	89%	11%
DATE TESTED	5-Oct-21		TESTED BY LMB			

PARTICLE-SIZE ANALYSIS REPORT

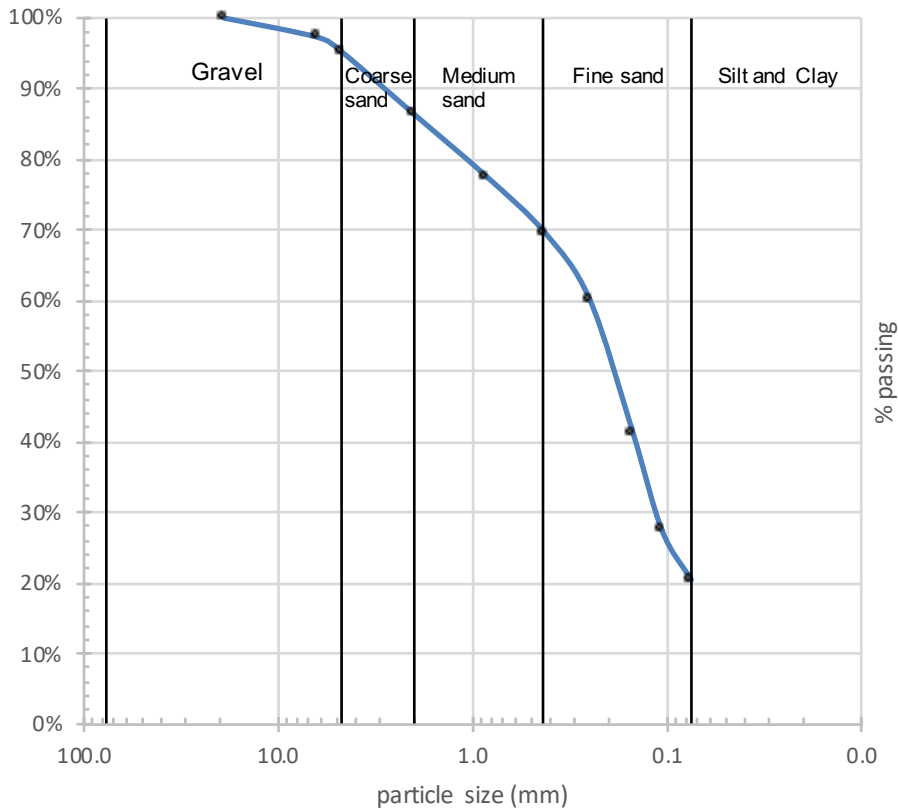
PROJECT Greenfield-Eatonville	CLIENT Greenfield-Eatonville	PROJECT NO. 21-118	LAB ID SB-17 @ 40'
		REPORT DATE 10-Oct-21	FIELD ID SB-17 @ 40'
		DATE SAMPLED 28-Sep-21	SAMPLED BY MG

MATERIAL DATA

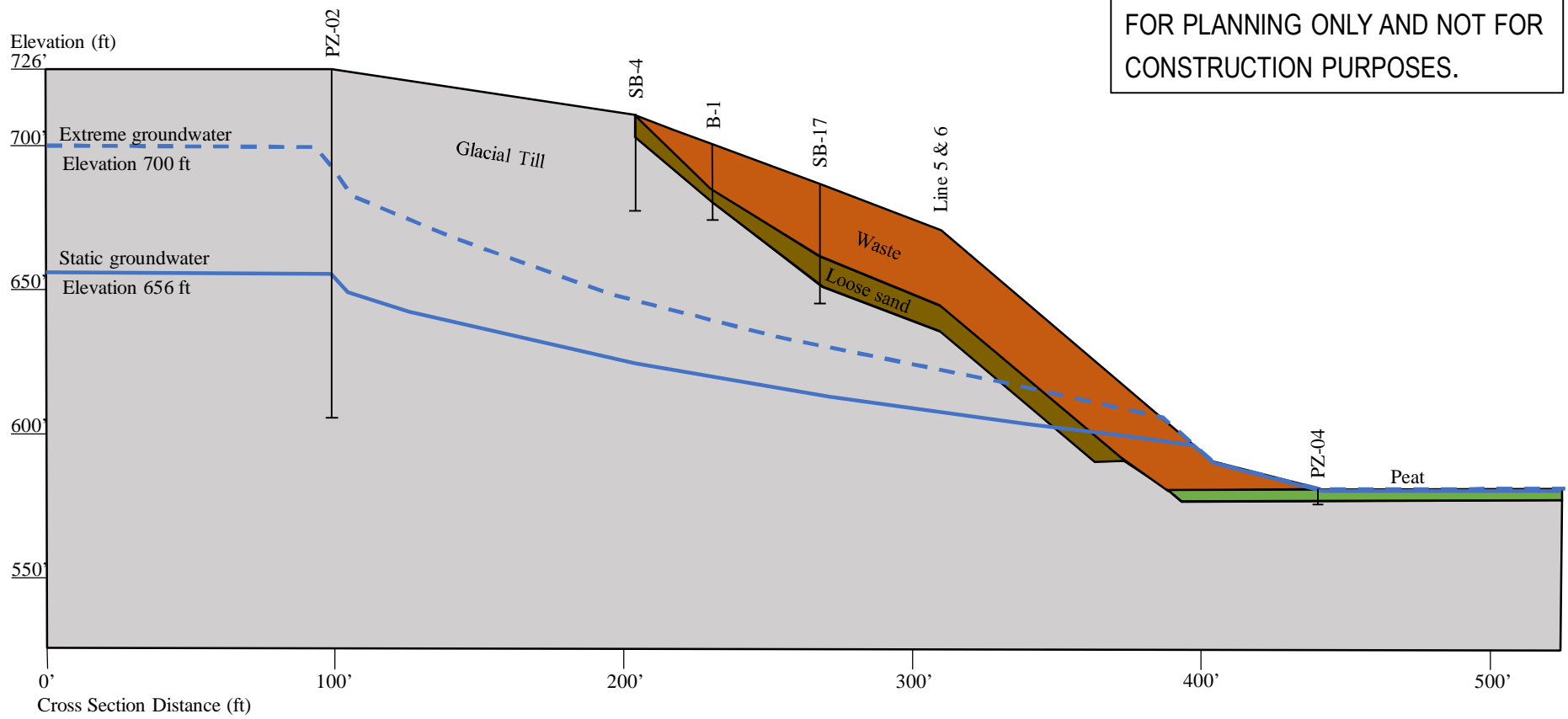
MATERIAL SAMPLED SB-17 @ 40'	MATERIAL SOURCE SB-17 @ 40'	USCS SOIL TYPE Silty SAND (SM)
SPECIFICATIONS		AASHTO SOIL TYPE

LABORATORY TEST DATA

LABORATORY EQUIPMENT					TEST PROCEDURE				
Humboldt Standard Sieves - Auto Shaker - Wet Sieve					ASTM C136 AND D1140				
ADDITIONAL DATA					SIEVE DATA				
initial dry mass (g) =		169.5					% gravel = 4.7%		
as-received moisture content =					coefficient of curvature C _c =		% sand = 74.8%		
liquid limit =		0			coefficient of uniformity C _u =		% silt and clay = 20%		
plastic limit =		0			effective size (mm) D ₍₁₀₎ =				
plasticity index =		0			D ₍₃₀₎ =		0.1		
fineness modulus =					D ₍₆₀₎ =		0.25		
fines check =		20.5%			D ₍₉₀₎ =		3		
					SIEVE SIZE		PERCENT PASSING		
					US mm		mass (g) Indiv % Cumul % % Pass		



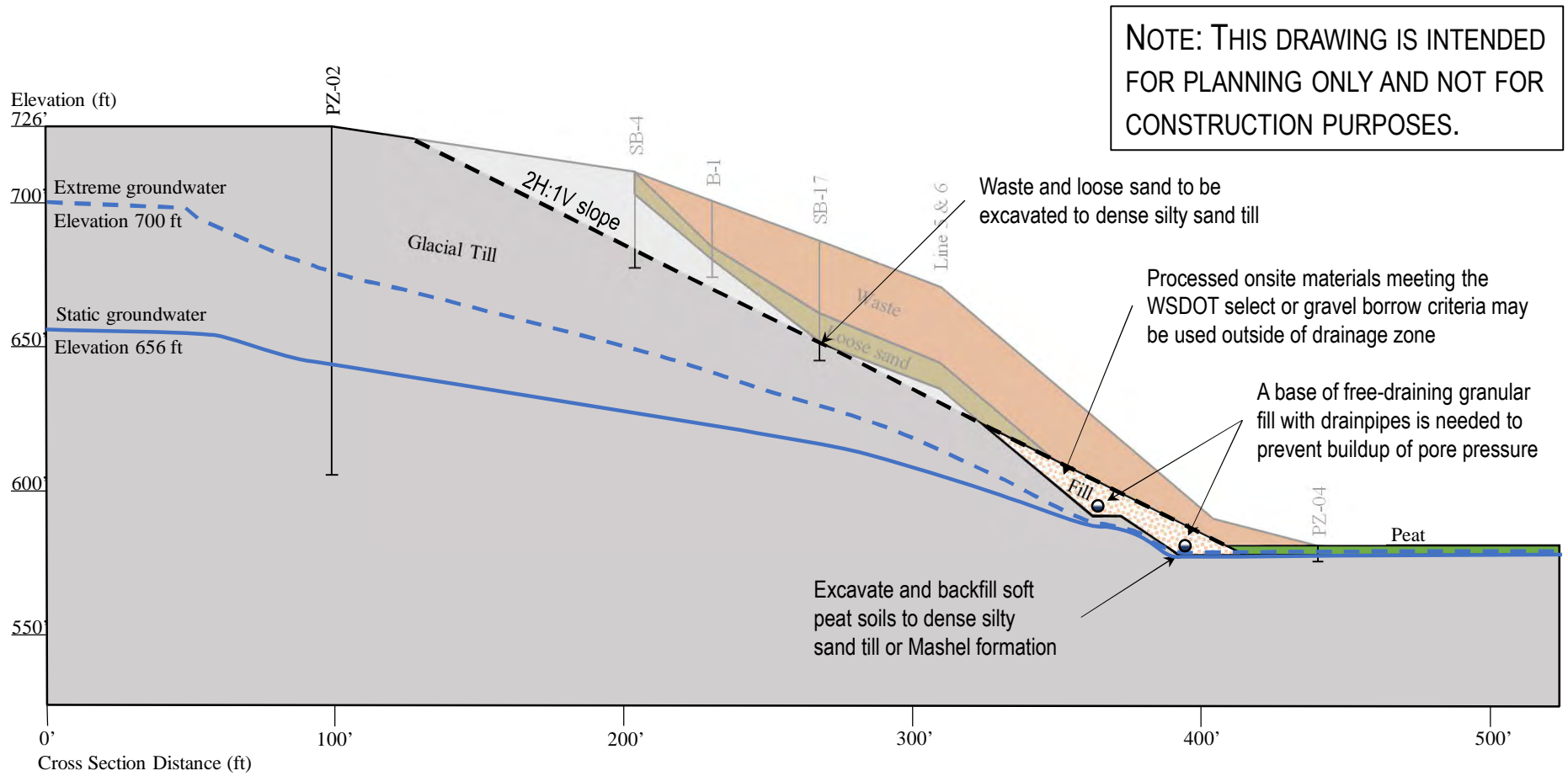
GRAVEL	6.00"	150.0		0%	0%	100%
	4.00"	100.0		0%	0%	100%
	3.00"	75.0		0%	0%	100%
	2.50"	63.0		0%	0%	100%
	2.00"	50.0		0%	0%	100%
	1.75"	45.0		0%	0%	100%
	1.50"	37.5		0%	0%	100%
	1.25"	31.5		0%	0%	100%
	1.00"	25.0		0%	0%	100%
	7/8"	22.4		0%	0%	100%
	3/4"	19.0		0%	0%	100%
	5/8"	16.0				
	1/2"	12.5				
3/8"	9.50					
1/4"	6.30	4.60	3%	3%	97%	
#4	4.75	3.40	2%	5%	95%	
SAND	#8	2.36				
	#10	2.00	15.10	8.91%	14%	86%
	#16	1.18				
	#20	0.850	14.90	8.79%	22%	78%
	#30	0.600				
	#40	0.425	14	7.96%	30%	70%
	#50	0.300				
	#60	0.250	16.00	9.44%	40%	60%
	#80	0.180				
	#100	0.150	31.90	18.82%	59%	41%
	#140	0.106	23.60	13.92%	73%	27%
	#170	0.900				
#200	0.075	11.80	6.96%	80%	20%	
DATE TESTED			TESTED BY			
5-Oct-21			LMB			



Remedial Investigation – Former Eatonville Landfill
 Eatonville, WA
 Greenfield Geotechnical LLC

Figure 1
Existing Conditions

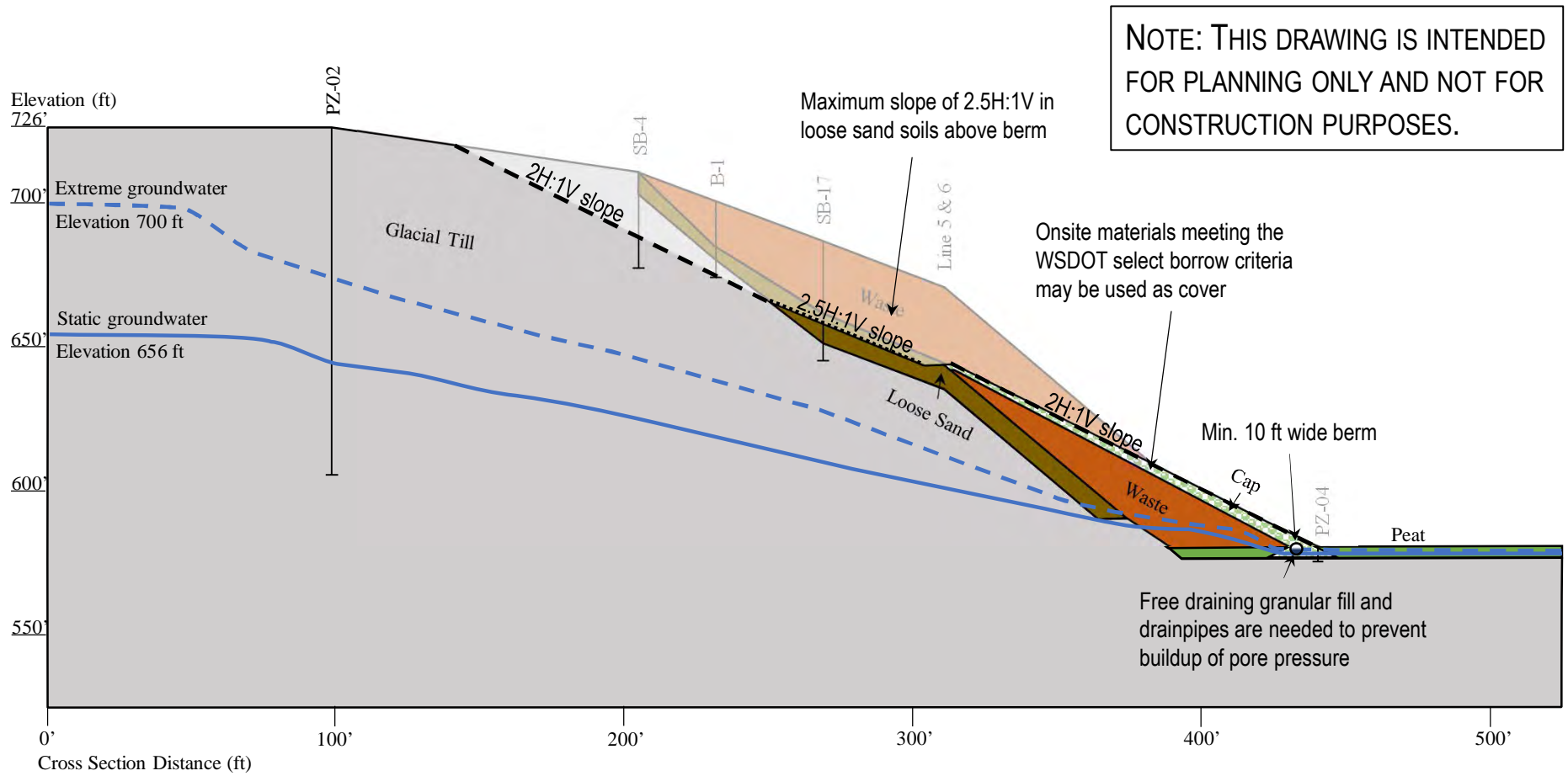
DRAFT



Remedial Investigation – Former Eatonville Landfill
Eatonville, WA
Greenfield Geotechnical LLC

Figure 2
2H:1V Excavation Cut/Fill

DRAFT



Remedial Investigation – Former Eatonville Landfill
 Eatonville, WA
 Greenfield Geotechnical LLC

Figure 3
Partial Removal with Berm

DRAFT

APPENDIX F

Laboratory Analytical Reports, Data Validation Reports, and Supplemental Data

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

Appendix F Laboratory Analytical Reports, Data Validation Reports, and Supplemental Data

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Laboratory Reports

- A1I0619, Fremont Analytical, Inc., October 6, 2021
- A1I0619, Apex Laboratories, November 16, 2021
- Vista Analytical Laboratory, November 23, 2021
- A1K0892, Fremont Analytical, Inc., December 9, 2021
- Vista Analytical Laboratory, March 10, 2022
- A1K0754, Apex Laboratories, April 14, 2023
- A2H0521, Apex Laboratories, April 14, 2023
- A2I0312, Apex Laboratories, April 14, 2023
- A2B0895, Apex Laboratories, April 14, 2023
- A1A0458, Apex Laboratories, April 19, 2023
- A1K0892, Apex Laboratories, April 25, 2023
- A2B0202, Apex Laboratories, April 25, 2023
- A2B0202, Air Technology Laboratories, Inc., April 28, 2023

Data Validation Reports

- Level 2 Data Validation Checks, Eatonville, Report 2109161
- Level 2 Data Validation Checks, Eatonville, Report 2109344
- Level 2 Data Validation Checks, Eatonville, Report 2111482
- Level 2 Data Validation Checks, Eatonville, Report 2202107
- Level 2 Data Validation Checks, Eatonville, Report A1A0458
- Level 2 Data Validation Checks, Eatonville, Report A1K0754
- Level 2 Data Validation Checks, Eatonville, Report A1K0892
- Level 2 Data Validation Checks, Eatonville, Report A1I0619
- Level 2 Data Validation Checks, Eatonville, Report A2B0202
- Level 2 Data Validation Checks, Eatonville, Report A2B0895
- Level 2 Data Validation Checks, Eatonville, Report A2H0521
- Level 2 Data Validation Checks, Eatonville, Report A2I0312
- Level 2 Data Validation Checks, Eatonville, Report N021001

Supplemental Data

- ProUCL Outputs
 - USGS Top 5
 - USGS Top 5 SE Non-Detects
 - USGS Top 5 TI
 - Wetland Complete ProUCL Detects
 - Wetland Complete ProUCL Non-Detects
- USGS Soil Background Data

Laboratory Reports



Fremont
Analytical

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Apex Laboratories
Philip Nerenberg
6700 SW Sandburg St
Tigard, OR 97223

RE: A1I0619
Work Order Number: 2109344

October 06, 2021

Attention Philip Nerenberg:

Fremont Analytical, Inc. received 15 sample(s) on 9/22/2021 for the analyses presented in the following report.

Extractable Petroleum Hydrocarbons by NWEPH
Sample Moisture (Percent Moisture)
Volatile Petroleum Hydrocarbons by NWVPH

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CC:
Sub Data

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

www.fremontanalytical.com

CLIENT: Apex Laboratories
Project: A110619
Work Order: 2109344

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2109344-001	HA-01-0921	09/14/2021 1:10 PM	09/22/2021 9:35 AM
2109344-002	HA-02-0921	09/14/2021 11:45 AM	09/22/2021 9:35 AM
2109344-003	HA-03-0921	09/13/2021 4:20 PM	09/22/2021 9:35 AM
2109344-004	DU-01-0921-After Processing	09/14/2021 5:00 PM	09/22/2021 9:35 AM
2109344-005	DU-02-0921-After Processing	09/15/2021 4:30 PM	09/22/2021 9:35 AM
2109344-006	HA-1003-0921	09/13/2021 4:25 PM	09/22/2021 9:35 AM
2109344-007	DU-01-0921-As Received	09/14/2021 5:00 PM	09/22/2021 9:35 AM
2109344-008	DU-02-0921-As Received	09/15/2021 4:30 PM	09/22/2021 9:35 AM
2109344-009	SB18-9-10-0921	09/16/2021 2:35 PM	09/22/2021 9:35 AM
2109344-010	EB01-0921	09/16/2021 5:25 PM	09/22/2021 9:35 AM
2109344-011	EB02-0921	09/16/2021 5:55 PM	09/22/2021 9:35 AM
2109344-012	SW04-0921	09/16/2021 10:30 AM	09/22/2021 9:35 AM
2109344-013	SW05-0921	09/16/2021 11:35 AM	09/22/2021 9:35 AM
2109344-014	SW06-0921	09/16/2021 3:00 PM	09/22/2021 9:35 AM
2109344-015	SW1006-0921	09/16/2021 3:15 PM	09/22/2021 9:35 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Apex Laboratories**Project:** A110619

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2109344

Date Reported: 10/6/2021

Client: Apex Laboratories

Collection Date: 9/14/2021 1:10:00 PM

Project: A1I0619

Lab ID: 2109344-001

Matrix: Soil

Client Sample ID: HA-01-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33794

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	42.6		mg/Kg-dry	1	10/5/2021 6:13:58 AM
Aliphatic Hydrocarbon (C10-C12)	ND	21.3	*	mg/Kg-dry	1	10/5/2021 6:13:58 AM
Aliphatic Hydrocarbon (C12-C16)	ND	21.3		mg/Kg-dry	1	10/5/2021 6:13:58 AM
Aliphatic Hydrocarbon (C16-C21)	ND	21.3		mg/Kg-dry	1	10/5/2021 6:13:58 AM
Aliphatic Hydrocarbon (C21-C34)	ND	21.3		mg/Kg-dry	1	10/5/2021 6:13:58 AM
Aromatic Hydrocarbon (C8-C10)	ND	42.6		mg/Kg-dry	1	10/5/2021 2:40:35 AM
Aromatic Hydrocarbon (C10-C12)	ND	21.3	*	mg/Kg-dry	1	10/5/2021 2:40:35 AM
Aromatic Hydrocarbon (C12-C16)	ND	21.3		mg/Kg-dry	1	10/5/2021 2:40:35 AM
Aromatic Hydrocarbon (C16-C21)	ND	21.3		mg/Kg-dry	1	10/5/2021 2:40:35 AM
Aromatic Hydrocarbon (C21-C34)	23.5	21.3		mg/Kg-dry	1	10/5/2021 2:40:35 AM
Surr: 1-Chlorooctadecane	65.7	60 - 140		%Rec	1	10/5/2021 6:13:58 AM
Surr: o-Terphenyl	66.0	60 - 140		%Rec	1	10/5/2021 2:40:35 AM

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33811

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	14.1	9.56		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aliphatic Hydrocarbon (C6-C8)	18.3	5.73		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aliphatic Hydrocarbon (C8-C10)	ND	9.56		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aliphatic Hydrocarbon (C10-C12)	2.45	1.91		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aromatic Hydrocarbon (C8-C10)	ND	11.5		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aromatic Hydrocarbon (C10-C12)	ND	1.91		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aromatic Hydrocarbon (C12-C13)	ND	1.91		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Benzene	ND	2.29		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Toluene	ND	1.91		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Ethylbenzene	ND	6.50		mg/Kg-dry	1	9/24/2021 2:40:21 AM
m,p-Xylene	ND	3.82		mg/Kg-dry	1	9/24/2021 2:40:21 AM
o-Xylene	ND	1.91		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Naphthalene	ND	9.94		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Methyl tert-butyl ether (MTBE)	ND	4.20		mg/Kg-dry	1	9/24/2021 2:40:21 AM
Surr: 1,4-Difluorobenzene	77.8	65 - 140		%Rec	1	9/24/2021 2:40:21 AM
Surr: Bromofluorobenzene	92.9	65 - 140		%Rec	1	9/24/2021 2:40:21 AM

Sample Moisture (Percent Moisture)

Batch ID: R70080

Analyst: cb

Percent Moisture	54.9	0.500		wt%	1	9/23/2021 9:29:00 AM
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Original



Client: Apex Laboratories

Collection Date: 9/14/2021 11:45:00 AM

Project: A1I0619

Lab ID: 2109344-002

Matrix: Soil

Client Sample ID: HA-02-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33794

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	42.3		mg/Kg-dry	1	10/5/2021 8:00:38 AM
Aliphatic Hydrocarbon (C10-C12)	ND	21.2	*	mg/Kg-dry	1	10/5/2021 8:00:38 AM
Aliphatic Hydrocarbon (C12-C16)	ND	21.2		mg/Kg-dry	1	10/5/2021 8:00:38 AM
Aliphatic Hydrocarbon (C16-C21)	ND	21.2		mg/Kg-dry	1	10/5/2021 8:00:38 AM
Aliphatic Hydrocarbon (C21-C34)	ND	21.2		mg/Kg-dry	1	10/5/2021 8:00:38 AM
Aromatic Hydrocarbon (C8-C10)	ND	42.3		mg/Kg-dry	1	10/4/2021 4:54:59 PM
Aromatic Hydrocarbon (C10-C12)	ND	21.2	*	mg/Kg-dry	1	10/4/2021 4:54:59 PM
Aromatic Hydrocarbon (C12-C16)	ND	21.2		mg/Kg-dry	1	10/4/2021 4:54:59 PM
Aromatic Hydrocarbon (C16-C21)	ND	21.2		mg/Kg-dry	1	10/4/2021 4:54:59 PM
Aromatic Hydrocarbon (C21-C34)	ND	21.2		mg/Kg-dry	1	10/4/2021 4:54:59 PM
Surr: 1-Chlorooctadecane	71.5	60 - 140		%Rec	1	10/5/2021 8:00:38 AM
Surr: o-Terphenyl	71.3	60 - 140		%Rec	1	10/4/2021 4:54:59 PM

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33811

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	11.3	10.4		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aliphatic Hydrocarbon (C6-C8)	11.1	6.24		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aliphatic Hydrocarbon (C8-C10)	ND	10.4		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aliphatic Hydrocarbon (C10-C12)	4.78	2.08		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aromatic Hydrocarbon (C8-C10)	ND	12.5		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aromatic Hydrocarbon (C10-C12)	ND	2.08		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aromatic Hydrocarbon (C12-C13)	ND	2.08		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Benzene	ND	2.50		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Toluene	ND	2.08		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Ethylbenzene	ND	7.07		mg/Kg-dry	1	9/24/2021 3:19:15 AM
m,p-Xylene	ND	4.16		mg/Kg-dry	1	9/24/2021 3:19:15 AM
o-Xylene	ND	2.08		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Naphthalene	ND	10.8		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Methyl tert-butyl ether (MTBE)	ND	4.57		mg/Kg-dry	1	9/24/2021 3:19:15 AM
Surr: 1,4-Difluorobenzene	77.7	65 - 140		%Rec	1	9/24/2021 3:19:15 AM
Surr: Bromofluorobenzene	93.8	65 - 140		%Rec	1	9/24/2021 3:19:15 AM

Sample Moisture (Percent Moisture)

Batch ID: R70080

Analyst: cb

Percent Moisture	56.9	0.500		wt%	1	9/23/2021 9:29:00 AM
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Client: Apex Laboratories

Collection Date: 9/13/2021 4:20:00 PM

Project: A1I0619

Lab ID: 2109344-003

Matrix: Soil

Client Sample ID: HA-03-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33794

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	46.4		mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aliphatic Hydrocarbon (C10-C12)	ND	23.2	*	mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aliphatic Hydrocarbon (C12-C16)	ND	23.2		mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aliphatic Hydrocarbon (C16-C21)	ND	23.2		mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aliphatic Hydrocarbon (C21-C34)	ND	23.2		mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aromatic Hydrocarbon (C8-C10)	ND	46.4		mg/Kg-dry	1	10/5/2021 9:19:58 PM
Aromatic Hydrocarbon (C10-C12)	ND	23.2	*	mg/Kg-dry	1	10/5/2021 9:19:58 PM
Aromatic Hydrocarbon (C12-C16)	ND	23.2		mg/Kg-dry	1	10/5/2021 9:19:58 PM
Aromatic Hydrocarbon (C16-C21)	ND	23.2		mg/Kg-dry	1	10/5/2021 9:19:58 PM
Aromatic Hydrocarbon (C21-C34)	107	23.2		mg/Kg-dry	1	10/5/2021 9:19:58 PM
Surr: 1-Chlorooctadecane	65.3	60 - 140		%Rec	1	10/5/2021 8:53:50 AM
Surr: o-Terphenyl	82.1	60 - 140		%Rec	1	10/5/2021 9:19:58 PM

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33811

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	16.0	10.8		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aliphatic Hydrocarbon (C6-C8)	7.97	6.49		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aliphatic Hydrocarbon (C8-C10)	ND	10.8		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aliphatic Hydrocarbon (C10-C12)	ND	2.16		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aromatic Hydrocarbon (C8-C10)	ND	13.0		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aromatic Hydrocarbon (C10-C12)	ND	2.16		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aromatic Hydrocarbon (C12-C13)	ND	2.16		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Benzene	ND	2.59		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Toluene	ND	2.16		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Ethylbenzene	ND	7.35		mg/Kg-dry	1	9/24/2021 3:58:14 AM
m,p-Xylene	ND	4.32		mg/Kg-dry	1	9/24/2021 3:58:14 AM
o-Xylene	ND	2.16		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Naphthalene	ND	11.2		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Methyl tert-butyl ether (MTBE)	ND	4.76		mg/Kg-dry	1	9/24/2021 3:58:14 AM
Surr: 1,4-Difluorobenzene	77.7	65 - 140		%Rec	1	9/24/2021 3:58:14 AM
Surr: Bromofluorobenzene	95.0	65 - 140		%Rec	1	9/24/2021 3:58:14 AM

Sample Moisture (Percent Moisture)

Batch ID: R70083

Analyst: cb

Percent Moisture	58.2	0.500		wt%	1	9/23/2021 10:16:16 AM
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Client: Apex Laboratories

Collection Date: 9/14/2021 5:00:00 PM

Project: A1I0619

Lab ID: 2109344-004

Matrix: Soil

Client Sample ID: DU-01-0921-After Processing

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33794

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	18.1		mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aliphatic Hydrocarbon (C10-C12)	ND	9.04	*	mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aliphatic Hydrocarbon (C12-C16)	ND	9.04		mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aliphatic Hydrocarbon (C16-C21)	ND	9.04		mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aliphatic Hydrocarbon (C21-C34)	17.0	9.04		mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aromatic Hydrocarbon (C8-C10)	ND	18.1		mg/Kg-dry	1	10/4/2021 7:34:38 PM
Aromatic Hydrocarbon (C10-C12)	ND	9.04	*	mg/Kg-dry	1	10/4/2021 7:34:38 PM
Aromatic Hydrocarbon (C12-C16)	ND	9.04		mg/Kg-dry	1	10/4/2021 7:34:38 PM
Aromatic Hydrocarbon (C16-C21)	11.9	9.04		mg/Kg-dry	1	10/4/2021 7:34:38 PM
Aromatic Hydrocarbon (C21-C34)	138	9.04		mg/Kg-dry	1	10/4/2021 7:34:38 PM
Surr: 1-Chlorooctadecane	83.1	60 - 140		%Rec	1	10/5/2021 11:33:53 AM
Surr: o-Terphenyl	83.7	60 - 140		%Rec	1	10/4/2021 7:34:38 PM

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Sample Moisture (Percent Moisture)

Batch ID: R70083

Analyst: cb

Percent Moisture	1.51	0.500		wt%	1	9/23/2021 10:16:16 AM
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Client: Apex Laboratories

Collection Date: 9/15/2021 4:30:00 PM

Project: A1I0619

Lab ID: 2109344-005

Matrix: Soil

Client Sample ID: DU-02-0921-After Processing

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33794

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	20.0		mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aliphatic Hydrocarbon (C10-C12)	ND	9.99	*	mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aliphatic Hydrocarbon (C12-C16)	ND	9.99		mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aliphatic Hydrocarbon (C16-C21)	ND	9.99		mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aliphatic Hydrocarbon (C21-C34)	ND	9.99		mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aromatic Hydrocarbon (C8-C10)	ND	20.0		mg/Kg-dry	1	10/4/2021 11:07:30 PM
Aromatic Hydrocarbon (C10-C12)	ND	9.99	*	mg/Kg-dry	1	10/4/2021 11:07:30 PM
Aromatic Hydrocarbon (C12-C16)	ND	9.99		mg/Kg-dry	1	10/4/2021 11:07:30 PM
Aromatic Hydrocarbon (C16-C21)	ND	9.99		mg/Kg-dry	1	10/4/2021 11:07:30 PM
Aromatic Hydrocarbon (C21-C34)	25.5	9.99		mg/Kg-dry	1	10/4/2021 11:07:30 PM
Surr: 1-Chlorooctadecane	68.6	60 - 140		%Rec	1	10/5/2021 3:07:12 PM
Surr: o-Terphenyl	64.3	60 - 140		%Rec	1	10/4/2021 11:07:30 PM

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Sample Moisture (Percent Moisture)

Batch ID: R70083

Analyst: cb

Percent Moisture	2.30	0.500		wt%	1	9/23/2021 10:16:16 AM
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Client: Apex Laboratories

Collection Date: 9/13/2021 4:25:00 PM

Project: A1I0619

Lab ID: 2109344-006

Matrix: Soil

Client Sample ID: HA-1003-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33794

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	59.3		mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aliphatic Hydrocarbon (C10-C12)	ND	29.6	*	mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aliphatic Hydrocarbon (C12-C16)	ND	29.6		mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aliphatic Hydrocarbon (C16-C21)	ND	29.6		mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aliphatic Hydrocarbon (C21-C34)	291	29.6		mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aromatic Hydrocarbon (C8-C10)	ND	59.3		mg/Kg-dry	1	10/5/2021 12:00:48 AM
Aromatic Hydrocarbon (C10-C12)	ND	29.6	*	mg/Kg-dry	1	10/5/2021 12:00:48 AM
Aromatic Hydrocarbon (C12-C16)	ND	29.6		mg/Kg-dry	1	10/5/2021 12:00:48 AM
Aromatic Hydrocarbon (C16-C21)	ND	29.6		mg/Kg-dry	1	10/5/2021 12:00:48 AM
Aromatic Hydrocarbon (C21-C34)	263	29.6		mg/Kg-dry	1	10/5/2021 12:00:48 AM
Surr: 1-Chlorooctadecane	90.1	60 - 140		%Rec	1	10/5/2021 4:00:20 PM
Surr: o-Terphenyl	74.2	60 - 140		%Rec	1	10/5/2021 12:00:48 AM

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33787

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	21.6	17.9		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aliphatic Hydrocarbon (C6-C8)	72.9	10.8		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aliphatic Hydrocarbon (C8-C10)	ND	17.9		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aliphatic Hydrocarbon (C10-C12)	16.5	3.58		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aromatic Hydrocarbon (C8-C10)	ND	21.5		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aromatic Hydrocarbon (C10-C12)	ND	3.58		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aromatic Hydrocarbon (C12-C13)	13.3	3.58		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Benzene	ND	4.30	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
Toluene	ND	3.58	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
Ethylbenzene	ND	12.2	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
m,p-Xylene	ND	7.17	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
o-Xylene	ND	3.58	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
Naphthalene	ND	18.6		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Methyl tert-butyl ether (MTBE)	ND	7.89		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Surr: 1,4-Difluorobenzene	78.7	65 - 140		%Rec	1	9/22/2021 10:37:08 PM
Surr: Bromofluorobenzene	97.0	65 - 140		%Rec	1	9/22/2021 10:37:08 PM

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample Moisture (Percent Moisture)

Batch ID: R70083

Analyst: cb

Percent Moisture	67.4	0.500	wt%	1	9/23/2021 10:16:16 AM
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Client: Apex Laboratories

Collection Date: 9/14/2021 5:00:00 PM

Project: A1I0619

Lab ID: 2109344-007

Matrix: Soil

Client Sample ID: DU-01-0921-As Received

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33811

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	3.72	2.68		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aliphatic Hydrocarbon (C6-C8)	3.34	1.61		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aliphatic Hydrocarbon (C8-C10)	ND	2.68		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aliphatic Hydrocarbon (C10-C12)	1.87	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aromatic Hydrocarbon (C8-C10)	ND	3.21		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aromatic Hydrocarbon (C10-C12)	0.591	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aromatic Hydrocarbon (C12-C13)	ND	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Benzene	ND	0.643		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Toluene	ND	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Ethylbenzene	ND	1.82		mg/Kg-dry	1	9/24/2021 4:37:21 AM
m,p-Xylene	ND	1.07		mg/Kg-dry	1	9/24/2021 4:37:21 AM
o-Xylene	ND	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Naphthalene	ND	2.79		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Methyl tert-butyl ether (MTBE)	ND	1.18		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Surr: 1,4-Difluorobenzene	77.2	65 - 140		%Rec	1	9/24/2021 4:37:21 AM
Surr: Bromofluorobenzene	92.7	65 - 140		%Rec	1	9/24/2021 4:37:21 AM

Sample Moisture (Percent Moisture)

Batch ID: R70083

Analyst: cb

Percent Moisture	1.29	0.500		wt%	1	9/23/2021 10:16:16 AM
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Client: Apex Laboratories

Collection Date: 9/15/2021 4:30:00 PM

Project: A1I0619

Lab ID: 2109344-008

Matrix: Soil

Client Sample ID: DU-02-0921-As Received

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33811

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	5.44	3.56		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aliphatic Hydrocarbon (C6-C8)	2.51	2.14		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aliphatic Hydrocarbon (C8-C10)	ND	3.56		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aliphatic Hydrocarbon (C10-C12)	2.50	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aromatic Hydrocarbon (C8-C10)	ND	4.27		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aromatic Hydrocarbon (C10-C12)	1.41	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aromatic Hydrocarbon (C12-C13)	ND	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Benzene	ND	0.855		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Toluene	ND	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Ethylbenzene	ND	2.42		mg/Kg-dry	1	9/24/2021 5:55:05 AM
m,p-Xylene	ND	1.42		mg/Kg-dry	1	9/24/2021 5:55:05 AM
o-Xylene	ND	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Naphthalene	ND	3.70		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Methyl tert-butyl ether (MTBE)	ND	1.57		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Surr: 1,4-Difluorobenzene	78.9	65 - 140		%Rec	1	9/24/2021 5:55:05 AM
Surr: Bromofluorobenzene	93.9	65 - 140		%Rec	1	9/24/2021 5:55:05 AM

Sample Moisture (Percent Moisture)

Batch ID: R70083

Analyst: cb

Percent Moisture	2.40	0.500		wt%	1	9/23/2021 10:16:16 AM
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Client: Apex Laboratories

Collection Date: 9/16/2021 2:35:00 PM

Project: A1I0619

Lab ID: 2109344-009

Matrix: Soil

Client Sample ID: SB18-9-10-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33794

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	21.6		mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aliphatic Hydrocarbon (C10-C12)	ND	10.8	*	mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aliphatic Hydrocarbon (C12-C16)	100	10.8		mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aliphatic Hydrocarbon (C16-C21)	ND	10.8		mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aliphatic Hydrocarbon (C21-C34)	454	10.8		mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aromatic Hydrocarbon (C8-C10)	ND	21.6		mg/Kg-dry	1	10/5/2021 1:47:12 AM
Aromatic Hydrocarbon (C10-C12)	ND	10.8	*	mg/Kg-dry	1	10/5/2021 1:47:12 AM
Aromatic Hydrocarbon (C12-C16)	12.0	10.8		mg/Kg-dry	1	10/5/2021 1:47:12 AM
Aromatic Hydrocarbon (C16-C21)	17.4	10.8		mg/Kg-dry	1	10/5/2021 1:47:12 AM
Aromatic Hydrocarbon (C21-C34)	270	10.8		mg/Kg-dry	1	10/5/2021 1:47:12 AM
Surr: 1-Chlorooctadecane	82.8	60 - 140		%Rec	1	10/5/2021 5:46:51 PM
Surr: o-Terphenyl	78.4	60 - 140		%Rec	1	10/5/2021 1:47:12 AM

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33811

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	7.51	4.94		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Aliphatic Hydrocarbon (C6-C8)	6.73	2.96		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Aliphatic Hydrocarbon (C8-C10)	ND	4.94		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Aliphatic Hydrocarbon (C10-C12)	3.09	0.988		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Aromatic Hydrocarbon (C8-C10)	ND	5.93		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Aromatic Hydrocarbon (C10-C12)	1.30	0.988		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Aromatic Hydrocarbon (C12-C13)	ND	0.988		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Benzene	ND	1.19		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Toluene	ND	0.988		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Ethylbenzene	ND	3.36		mg/Kg-dry	1	9/24/2021 7:12:36 AM
m,p-Xylene	ND	1.98		mg/Kg-dry	1	9/24/2021 7:12:36 AM
o-Xylene	ND	0.988		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Naphthalene	ND	5.14		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Methyl tert-butyl ether (MTBE)	ND	2.17		mg/Kg-dry	1	9/24/2021 7:12:36 AM
Surr: 1,4-Difluorobenzene	78.4	65 - 140		%Rec	1	9/24/2021 7:12:36 AM
Surr: Bromofluorobenzene	93.6	65 - 140		%Rec	1	9/24/2021 7:12:36 AM

Sample Moisture (Percent Moisture)

Batch ID: R70083

Analyst: cb

Percent Moisture	11.6	0.500		wt%	1	9/23/2021 10:16:16 AM
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Analytical Report

Work Order: 2109344

Date Reported: 10/6/2021

Client: Apex Laboratories

Collection Date: 9/16/2021 5:25:00 PM

Project: A1I0619

Lab ID: 2109344-010

Matrix: Water

Client Sample ID: EB01-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33813

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	78.7		µg/L	1	10/1/2021 5:09:56 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.4		µg/L	1	10/1/2021 5:09:56 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.4		µg/L	1	10/1/2021 5:09:56 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.4		µg/L	1	10/1/2021 5:09:56 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.4		µg/L	1	10/1/2021 5:09:56 AM
Aromatic Hydrocarbon (C8-C10)	ND	78.7		µg/L	1	9/30/2021 4:45:06 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.4		µg/L	1	9/30/2021 4:45:06 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.4		µg/L	1	9/30/2021 4:45:06 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.4		µg/L	1	9/30/2021 4:45:06 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.4		µg/L	1	9/30/2021 4:45:06 PM
Surr: 1-Chlorooctadecane	84.1	60 - 140		%Rec	1	10/1/2021 5:09:56 AM
Surr: o-Terphenyl	84.7	60 - 140		%Rec	1	9/30/2021 4:45:06 PM

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33789

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	58.2	25.0		µg/L	1	9/29/2021 7:21:45 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		µg/L	1	9/29/2021 7:21:45 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		µg/L	1	9/29/2021 7:21:45 PM
Aliphatic Hydrocarbon (C10-C12)	33.0	25.0		µg/L	1	9/29/2021 7:21:45 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		µg/L	1	9/29/2021 7:21:45 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		µg/L	1	9/29/2021 7:21:45 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		µg/L	1	9/29/2021 7:21:45 PM
Benzene	ND	20.0		µg/L	1	9/29/2021 7:21:45 PM
Toluene	ND	25.0		µg/L	1	9/29/2021 7:21:45 PM
Ethylbenzene	ND	25.0		µg/L	1	9/29/2021 7:21:45 PM
m,p-Xylene	ND	40.0		µg/L	1	9/29/2021 7:21:45 PM
o-Xylene	ND	20.0		µg/L	1	9/29/2021 7:21:45 PM
Naphthalene	ND	40.0		µg/L	1	9/29/2021 7:21:45 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		µg/L	1	9/29/2021 7:21:45 PM
Surr: 1,4-Difluorobenzene	78.7	65 - 140		%Rec	1	9/29/2021 7:21:45 PM
Surr: Bromofluorobenzene	96.8	65 - 140		%Rec	1	9/29/2021 7:21:45 PM



Analytical Report

Work Order: 2109344

Date Reported: 10/6/2021

Client: Apex Laboratories

Collection Date: 9/16/2021 5:55:00 PM

Project: A1I0619

Lab ID: 2109344-011

Matrix: Water

Client Sample ID: EB02-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33813

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	79.2		µg/L	1	10/1/2021 7:49:35 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.6		µg/L	1	10/1/2021 7:49:35 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.6		µg/L	1	10/1/2021 7:49:35 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.6		µg/L	1	10/1/2021 7:49:35 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.6		µg/L	1	10/1/2021 7:49:35 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.2		µg/L	1	9/30/2021 7:24:33 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.6		µg/L	1	9/30/2021 7:24:33 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.6		µg/L	1	9/30/2021 7:24:33 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.6		µg/L	1	9/30/2021 7:24:33 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.6		µg/L	1	9/30/2021 7:24:33 PM
Surr: 1-Chlorooctadecane	87.8	60 - 140		%Rec	1	10/1/2021 7:49:35 AM
Surr: o-Terphenyl	88.5	60 - 140		%Rec	1	9/30/2021 7:24:33 PM

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33789

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	55.3	25.0		µg/L	1	9/29/2021 8:00:39 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		µg/L	1	9/29/2021 8:00:39 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		µg/L	1	9/29/2021 8:00:39 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		µg/L	1	9/29/2021 8:00:39 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		µg/L	1	9/29/2021 8:00:39 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		µg/L	1	9/29/2021 8:00:39 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		µg/L	1	9/29/2021 8:00:39 PM
Benzene	ND	20.0		µg/L	1	9/29/2021 8:00:39 PM
Toluene	ND	25.0		µg/L	1	9/29/2021 8:00:39 PM
Ethylbenzene	ND	25.0		µg/L	1	9/29/2021 8:00:39 PM
m,p-Xylene	ND	40.0		µg/L	1	9/29/2021 8:00:39 PM
o-Xylene	ND	20.0		µg/L	1	9/29/2021 8:00:39 PM
Naphthalene	ND	40.0		µg/L	1	9/29/2021 8:00:39 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		µg/L	1	9/29/2021 8:00:39 PM
Surr: 1,4-Difluorobenzene	81.3	65 - 140		%Rec	1	9/29/2021 8:00:39 PM
Surr: Bromofluorobenzene	101	65 - 140		%Rec	1	9/29/2021 8:00:39 PM



Client: Apex Laboratories

Collection Date: 9/16/2021 10:30:00 AM

Project: A1I0619

Lab ID: 2109344-012

Matrix: Water

Client Sample ID: SW04-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33813

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	79.4		µg/L	1	10/1/2021 8:42:46 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.7		µg/L	1	10/1/2021 8:42:46 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.7		µg/L	1	10/1/2021 8:42:46 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.7		µg/L	1	10/1/2021 8:42:46 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.7		µg/L	1	10/1/2021 8:42:46 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.4		µg/L	1	9/30/2021 8:17:41 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.7		µg/L	1	9/30/2021 8:17:41 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.7		µg/L	1	9/30/2021 8:17:41 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.7		µg/L	1	9/30/2021 8:17:41 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.7		µg/L	1	9/30/2021 8:17:41 PM
Surr: 1-Chlorooctadecane	70.9	60 - 140		%Rec	1	10/1/2021 8:42:46 AM
Surr: o-Terphenyl	80.4	60 - 140		%Rec	1	9/30/2021 8:17:41 PM

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33789

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	62.4	25.0		µg/L	1	9/29/2021 8:39:38 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		µg/L	1	9/29/2021 8:39:38 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		µg/L	1	9/29/2021 8:39:38 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		µg/L	1	9/29/2021 8:39:38 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		µg/L	1	9/29/2021 8:39:38 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		µg/L	1	9/29/2021 8:39:38 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		µg/L	1	9/29/2021 8:39:38 PM
Benzene	ND	20.0		µg/L	1	9/29/2021 8:39:38 PM
Toluene	ND	25.0		µg/L	1	9/29/2021 8:39:38 PM
Ethylbenzene	ND	25.0		µg/L	1	9/29/2021 8:39:38 PM
m,p-Xylene	ND	40.0		µg/L	1	9/29/2021 8:39:38 PM
o-Xylene	ND	20.0		µg/L	1	9/29/2021 8:39:38 PM
Naphthalene	ND	40.0		µg/L	1	9/29/2021 8:39:38 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		µg/L	1	9/29/2021 8:39:38 PM
Surr: 1,4-Difluorobenzene	80.5	65 - 140		%Rec	1	9/29/2021 8:39:38 PM
Surr: Bromofluorobenzene	101	65 - 140		%Rec	1	9/29/2021 8:39:38 PM



Analytical Report

Work Order: 2109344

Date Reported: 10/6/2021

Client: Apex Laboratories

Collection Date: 9/16/2021 11:35:00 AM

Project: A1I0619

Lab ID: 2109344-013

Matrix: Water

Client Sample ID: SW05-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33813

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	79.3		µg/L	1	10/1/2021 9:36:10 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.6		µg/L	1	10/1/2021 9:36:10 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.6		µg/L	1	10/1/2021 9:36:10 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.6		µg/L	1	10/1/2021 9:36:10 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.6		µg/L	1	10/1/2021 9:36:10 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.3		µg/L	1	9/30/2021 9:10:50 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.6		µg/L	1	9/30/2021 9:10:50 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.6		µg/L	1	9/30/2021 9:10:50 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.6		µg/L	1	9/30/2021 9:10:50 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.6		µg/L	1	9/30/2021 9:10:50 PM
Surr: 1-Chlorooctadecane	78.4	60 - 140		%Rec	1	10/1/2021 9:36:10 AM
Surr: o-Terphenyl	82.5	60 - 140		%Rec	1	9/30/2021 9:10:50 PM

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33789

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	60.5	25.0		µg/L	1	9/29/2021 9:18:37 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		µg/L	1	9/29/2021 9:18:37 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		µg/L	1	9/29/2021 9:18:37 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		µg/L	1	9/29/2021 9:18:37 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		µg/L	1	9/29/2021 9:18:37 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		µg/L	1	9/29/2021 9:18:37 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		µg/L	1	9/29/2021 9:18:37 PM
Benzene	ND	20.0		µg/L	1	9/29/2021 9:18:37 PM
Toluene	ND	25.0		µg/L	1	9/29/2021 9:18:37 PM
Ethylbenzene	ND	25.0		µg/L	1	9/29/2021 9:18:37 PM
m,p-Xylene	ND	40.0		µg/L	1	9/29/2021 9:18:37 PM
o-Xylene	ND	20.0		µg/L	1	9/29/2021 9:18:37 PM
Naphthalene	ND	40.0		µg/L	1	9/29/2021 9:18:37 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		µg/L	1	9/29/2021 9:18:37 PM
Surr: 1,4-Difluorobenzene	81.3	65 - 140		%Rec	1	9/29/2021 9:18:37 PM
Surr: Bromofluorobenzene	101	65 - 140		%Rec	1	9/29/2021 9:18:37 PM



Analytical Report

Work Order: 2109344

Date Reported: 10/6/2021

Client: Apex Laboratories

Collection Date: 9/16/2021 3:00:00 PM

Project: A1I0619

Lab ID: 2109344-014

Matrix: Water

Client Sample ID: SW06-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33813

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	79.6		µg/L	1	10/5/2021 9:47:18 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.8		µg/L	1	10/5/2021 9:47:18 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.8		µg/L	1	10/5/2021 9:47:18 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.8		µg/L	1	10/5/2021 9:47:18 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.8		µg/L	1	10/5/2021 9:47:18 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.6		µg/L	1	9/30/2021 10:03:54 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.8		µg/L	1	9/30/2021 10:03:54 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.8		µg/L	1	9/30/2021 10:03:54 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.8		µg/L	1	9/30/2021 10:03:54 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.8		µg/L	1	9/30/2021 10:03:54 PM
Surr: 1-Chlorooctadecane	70.9	60 - 140		%Rec	1	10/5/2021 9:47:18 AM
Surr: o-Terphenyl	65.6	60 - 140		%Rec	1	9/30/2021 10:03:54 PM

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33789

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	49.5	25.0		µg/L	1	9/29/2021 9:57:22 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		µg/L	1	9/29/2021 9:57:22 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		µg/L	1	9/29/2021 9:57:22 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		µg/L	1	9/29/2021 9:57:22 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		µg/L	1	9/29/2021 9:57:22 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		µg/L	1	9/29/2021 9:57:22 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		µg/L	1	9/29/2021 9:57:22 PM
Benzene	ND	20.0		µg/L	1	9/29/2021 9:57:22 PM
Toluene	ND	25.0		µg/L	1	9/29/2021 9:57:22 PM
Ethylbenzene	ND	25.0		µg/L	1	9/29/2021 9:57:22 PM
m,p-Xylene	ND	40.0		µg/L	1	9/29/2021 9:57:22 PM
o-Xylene	ND	20.0		µg/L	1	9/29/2021 9:57:22 PM
Naphthalene	ND	40.0		µg/L	1	9/29/2021 9:57:22 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		µg/L	1	9/29/2021 9:57:22 PM
Surr: 1,4-Difluorobenzene	80.9	65 - 140		%Rec	1	9/29/2021 9:57:22 PM
Surr: Bromofluorobenzene	100	65 - 140		%Rec	1	9/29/2021 9:57:22 PM



Analytical Report

Work Order: 2109344

Date Reported: 10/6/2021

Client: Apex Laboratories

Collection Date: 9/16/2021 3:15:00 PM

Project: A1I0619

Lab ID: 2109344-015

Matrix: Water

Client Sample ID: SW1006-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 33813

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	116	79.5		µg/L	1	10/1/2021 11:23:12 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.7		µg/L	1	10/1/2021 11:23:12 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.7		µg/L	1	10/1/2021 11:23:12 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.7		µg/L	1	10/1/2021 11:23:12 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.7		µg/L	1	10/1/2021 11:23:12 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.5		µg/L	1	9/30/2021 10:57:13 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.7		µg/L	1	9/30/2021 10:57:13 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.7		µg/L	1	9/30/2021 10:57:13 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.7		µg/L	1	9/30/2021 10:57:13 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.7		µg/L	1	9/30/2021 10:57:13 PM
Surr: 1-Chlorooctadecane	83.8	60 - 140		%Rec	1	10/1/2021 11:23:12 AM
Surr: o-Terphenyl	83.2	60 - 140		%Rec	1	9/30/2021 10:57:13 PM

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 33789

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	41.9	25.0		µg/L	1	9/29/2021 10:36:02 PM
Aliphatic Hydrocarbon (C6-C8)	47.8	45.0		µg/L	1	9/29/2021 10:36:02 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		µg/L	1	9/29/2021 10:36:02 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		µg/L	1	9/29/2021 10:36:02 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		µg/L	1	9/29/2021 10:36:02 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		µg/L	1	9/29/2021 10:36:02 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		µg/L	1	9/29/2021 10:36:02 PM
Benzene	ND	20.0		µg/L	1	9/29/2021 10:36:02 PM
Toluene	ND	25.0		µg/L	1	9/29/2021 10:36:02 PM
Ethylbenzene	ND	25.0		µg/L	1	9/29/2021 10:36:02 PM
m,p-Xylene	ND	40.0		µg/L	1	9/29/2021 10:36:02 PM
o-Xylene	ND	20.0		µg/L	1	9/29/2021 10:36:02 PM
Naphthalene	ND	40.0		µg/L	1	9/29/2021 10:36:02 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		µg/L	1	9/29/2021 10:36:02 PM
Surr: 1,4-Difluorobenzene	83.1	65 - 140		%Rec	1	9/29/2021 10:36:02 PM
Surr: Bromofluorobenzene	101	65 - 140		%Rec	1	9/29/2021 10:36:02 PM

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A110619

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: MB-33794		SampType: MBLK		Units: mg/Kg		Prep Date: 9/23/2021			RunNo: 70349		
Client ID: MBLKS		Batch ID: 33794		Analysis Date: 10/4/2021					SeqNo: 1428044		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	ND	20.0									
Aromatic Hydrocarbon (C10-C12)	ND	10.0									*
Aromatic Hydrocarbon (C12-C16)	ND	10.0									
Aromatic Hydrocarbon (C16-C21)	ND	10.0									
Aromatic Hydrocarbon (C21-C34)	ND	10.0									
Surr: o-Terphenyl	84.4		100.0		84.4	60	140				

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Sample ID: LCS-33794	SampType: LCS	Units: mg/Kg-dry				Prep Date: 9/23/2021			RunNo: 70349		
Client ID: LCSS	Batch ID: 33794	Analysis Date: 10/4/2021							SeqNo: 1428059		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	156	44.4	554.7	0	28.2	16.9	130				
Aromatic Hydrocarbon (C10-C12)	138	22.2	277.3	0	49.6	70	130				S
Aromatic Hydrocarbon (C12-C16)	197	22.2	277.3	0	71.0	70	130				
Aromatic Hydrocarbon (C16-C21)	217	22.2	277.3	0	78.2	70	130				
Aromatic Hydrocarbon (C21-C34)	209	22.2	277.3	0	75.3	70	130				
Surr: o-Terphenyl	201		221.9		90.7	60	140				

NOTES:

S - Outlying spike recovery observed (C10-C12). Samples will be qualified with a *.

Sample ID: 2109344-004AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2021		RunNo: 70349			
Client ID: DU-01-0921-After Proce		Batch ID: 33794				Analysis Date: 10/4/2021		SeqNo: 1428060			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	101	18.6	233.1	0	43.2	11.8	130				
Aromatic Hydrocarbon (C10-C12)	72.7	9.32	116.5	0	62.4	70	130				S
Aromatic Hydrocarbon (C12-C16)	83.0	9.32	116.5	0	71.2	70	130				
Aromatic Hydrocarbon (C16-C21)	102	9.32	116.5	11.85	77.1	70	130				
Aromatic Hydrocarbon (C21-C34)	251	9.32	116.5	138.1	96.6	70	130				

Work Order: 2109344

CLIENT: Apex Laboratories

Project: A110619

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: 2109344-004AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2021			RunNo: 70349			
Client ID: DU-01-0921-After Proce		Batch ID: 33794					Analysis Date: 10/4/2021			SeqNo: 1428060		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: o-Terphenyl 74.5 93.24 79.9 60 140

NOTES:

S - Outlying spike recovery(ies) observed for (C10-C12). A duplicate analysis was performed and recovered within range.

Sample ID: 2109344-004AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/23/2021			RunNo: 70349			
Client ID: DU-01-0921-After Proce		Batch ID: 33794					Analysis Date: 10/4/2021			SeqNo: 1428061		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Aromatic Hydrocarbon (C8-C10)	121	20.2	252.8	0	47.8	11.8	130	100.7	18.2	30
Aromatic Hydrocarbon (C10-C12)	90.2	10.1	126.4	0	71.3	70	130	72.71	21.5	30
Aromatic Hydrocarbon (C12-C16)	90.4	10.1	126.4	0	71.5	70	130	82.95	8.61	30
Aromatic Hydrocarbon (C16-C21)	109	10.1	126.4	11.85	76.6	70	130	101.7	6.69	30
Aromatic Hydrocarbon (C21-C34)	267	10.1	126.4	138.1	102	70	130	250.7	6.48	30
Surr: o-Terphenyl	81.7		101.1		80.8	60	140		0	

Sample ID: MB-33794		SampType: MBLK			Units: mg/Kg		Prep Date: 9/23/2021			RunNo: 70348		
Client ID: MBLKS		Batch ID: 33794			Analysis Date: 10/5/2021					SeqNo: 1428123		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Aliphatic Hydrocarbon (C8-C10)	ND	20.0									
Aliphatic Hydrocarbon (C10-C12)	ND	10.0									*
Aliphatic Hydrocarbon (C12-C16)	ND	10.0									
Aliphatic Hydrocarbon (C16-C21)	ND	10.0									
Aliphatic Hydrocarbon (C21-C34)	ND	10.0									
Surr: 1-Chlorooctadecane	89.7		100.0		89.7	60	140				

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A110619

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: LCS-33794	SampType: LCS	Units: mg/Kg-dry				Prep Date: 9/23/2021			RunNo: 70348		
Client ID: LCSS	Batch ID: 33794	Analysis Date: 10/5/2021							SeqNo: 1428125		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	114	44.4	554.7	0	20.6	15.7	130				
Aliphatic Hydrocarbon (C10-C12)	116	22.2	277.3	0	41.8	70	130				S
Aliphatic Hydrocarbon (C12-C16)	194	22.2	277.3	0	70.0	70	130				
Aliphatic Hydrocarbon (C16-C21)	205	22.2	277.3	0	73.9	70	130				
Aliphatic Hydrocarbon (C21-C34)	202	22.2	277.3	0	73.0	70	130				
Surr: 1-Chlorooctadecane	216		221.9		97.2	60	140				

NOTES:

S - Outlying spike recovery(ies) observed for (C10-C12).

Sample ID: 2109344-004AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2021			RunNo: 70348		
Client ID: DU-01-0921-After Proce		Batch ID: 33794		Analysis Date: 10/5/2021						SeqNo: 1428130	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	85.8	18.6	233.1	0	36.8	10.3	130				
Aliphatic Hydrocarbon (C10-C12)	66.4	9.32	116.5	0	56.9	70	130				S
Aliphatic Hydrocarbon (C12-C16)	90.2	9.32	116.5	0	77.4	70	130				
Aliphatic Hydrocarbon (C16-C21)	91.7	9.32	116.5	0	78.7	70	130				
Aliphatic Hydrocarbon (C21-C34)	101	9.32	116.5	16.95	72.2	70	130				
Surr: 1-Chlorooctadecane	86.2		93.24		92.4	60	140				

NOTES:

S - Outlying spike recovery(ies) observed (C10-C12).

Sample ID: 2109344-004AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/23/2021			RunNo: 70348		
Client ID: DU-01-0921-After Proce		Batch ID: 33794		Analysis Date: 10/5/2021					SeqNo: 1428131		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	82.5	20.2	252.8	0	32.6	10.3	130	85.81	3.95	30	
Aliphatic Hydrocarbon (C10-C12)	62.1	10.1	126.4	0	49.1	70	130	66.37	6.68	30	S
Aliphatic Hydrocarbon (C12-C16)	90.8	10.1	126.4	0	71.9	70	130	90.22	0.674	30	
Aliphatic Hydrocarbon (C16-C21)	92.5	10.1	126.4	0	73.2	70	130	91.71	0.864	30	
Aliphatic Hydrocarbon (C21-C34)	95.5	10.1	126.4	16.95	62.1	70	130	101.1	5.68	30	S

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A1I0619

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: 2109344-004AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 9/23/2021			RunNo: 70348		
Client ID: DU-01-0921-After Proce	Batch ID: 33794					Analysis Date: 10/5/2021			SeqNo: 1428131		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 1-Chlorooctadecane	85.6		101.1		84.6	60	140		0		
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NOTES:

- S - Outlying spike recovery(ies) observed (C10-C12).
- S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range (C21-C34).

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A1I0619

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: MB-33813		SampType: MBLK		Units: µg/L		Prep Date: 9/23/2021			RunNo: 70284			
Client ID: MBLKW		Batch ID: 33813					Analysis Date: 9/30/2021			SeqNo: 1426537		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Aromatic Hydrocarbon (C8-C10)	ND	78.7		0	0						
Aromatic Hydrocarbon (C10-C12)	ND	39.3		0	0						
Aromatic Hydrocarbon (C12-C16)	ND	39.3		0	0						
Aromatic Hydrocarbon (C16-C21)	ND	39.3		0	0						
Aromatic Hydrocarbon (C21-C34)	ND	39.3		0	0						
Surr: o-Terphenyl	320		393.5		81.2	60	140				

Sample ID: LCS-33813		SampType: LCS			Units: µg/L		Prep Date: 9/23/2021			RunNo: 70284		
Client ID: LCSW		Batch ID: 33813			Analysis Date: 9/30/2021			SeqNo: 1426538				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Aromatic Hydrocarbon (C8-C10)	492	79.8	997.7	0	49.3	24.3	130				
Aromatic Hydrocarbon (C10-C12)	355	39.9	498.9	0	71.2	70	130				
Aromatic Hydrocarbon (C12-C16)	382	39.9	498.9	0	76.6	70	130				
Aromatic Hydrocarbon (C16-C21)	428	39.9	498.9	0	85.7	70	130				
Aromatic Hydrocarbon (C21-C34)	521	39.9	498.9	0	104	70	130				
Surr: o-Terphenyl	350		399.1		87.7	60	140				

Sample ID: LCS-33813		SampType: LCS		Units: µg/L		Prep Date: 9/23/2021			RunNo: 70284			
Client ID: LCSW02		Batch ID: 33813					Analysis Date: 9/30/2021			SeqNo: 1426539		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Aromatic Hydrocarbon (C8-C10)	403	79.4	991.9	0	40.7	24.3	130	491.7	19.7	20	
Aromatic Hydrocarbon (C10-C12)	301	39.7	496.0	0	60.7	70	130	355.3	16.6	20	S
Aromatic Hydrocarbon (C12-C16)	324	39.7	496.0	0	65.4	70	130	382.1	16.4	20	S
Aromatic Hydrocarbon (C16-C21)	403	39.7	496.0	0	81.3	70	130	427.6	5.86	20	
Aromatic Hydrocarbon (C21-C34)	523	39.7	496.0	0	105	70	130	520.7	0.446	20	
Surr: o-Terphenyl	334		396.8		84.1	60	140		0		

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A1I0619

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: LCSD-33813	SampType: LCSD	Units: µg/L				Prep Date: 9/23/2021			RunNo: 70284		
Client ID: LCSW02	Batch ID: 33813					Analysis Date: 9/30/2021			SeqNo: 1426539		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: 2109344-010BMS	SampType: MS	Units: µg/L				Prep Date: 9/23/2021			RunNo: 70284		
Client ID: EB01-0921	Batch ID: 33813	Analysis Date: 9/30/2021							SeqNo: 1426542		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	529	79.7	996.1	0	53.1	6.65	130				
Aromatic Hydrocarbon (C10-C12)	356	39.8	498.0	0	71.4	70	130				
Aromatic Hydrocarbon (C12-C16)	379	39.8	498.0	7.597	74.6	70	130				
Aromatic Hydrocarbon (C16-C21)	425	39.8	498.0	23.97	80.5	70	130				
Aromatic Hydrocarbon (C21-C34)	520	39.8	498.0	0	104	70	130				
Surr: o-Terphenyl	363		398.4		91.2	60	140				

Sample ID: MB-33813	SampType: MBLK	Units: µg/L			Prep Date: 9/23/2021			RunNo: 70283			
Client ID: MBLKW	Batch ID: 33813				Analysis Date: 10/1/2021			SeqNo: 1426711			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	ND	78.7		0	0						
Aliphatic Hydrocarbon (C10-C12)	ND	39.3		0	0						
Aliphatic Hydrocarbon (C12-C16)	ND	39.3		0	0						
Aliphatic Hydrocarbon (C16-C21)	ND	39.3		0	0						
Aliphatic Hydrocarbon (C21-C34)	ND	39.3		0	0						
Surr: 1-Chlorooctadecane	327		393.5		83.0	60	140				

Sample ID: LCS-33813	SampType: LCS	Units: µg/L				Prep Date: 9/23/2021			RunNo: 70283		
Client ID: LCSW	Batch ID: 33813					Analysis Date: 10/1/2021			SeqNo: 1426712		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	465	79.8	997.7	0	46.6	11.7	130				

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A110619

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: LCS-33813	SampType: LCS	Units: µg/L				Prep Date: 9/23/2021			RunNo: 70283		
Client ID: LCSW	Batch ID: 33813					Analysis Date: 10/1/2021			SeqNo: 1426712		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C10-C12)	354	39.9	498.9	0	70.9	70	130				
Aliphatic Hydrocarbon (C12-C16)	382	39.9	498.9	0	76.6	70	130				
Aliphatic Hydrocarbon (C16-C21)	385	39.9	498.9	0	77.3	70	130				
Aliphatic Hydrocarbon (C21-C34)	438	39.9	498.9	0	87.8	70	130				
Surr: 1-Chlorooctadecane	348		399.1		87.1	60	140				

Sample ID: LCS-D-33813	SampType: LCS-D	Units: µg/L				Prep Date: 9/23/2021			RunNo: 70283		
Client ID: LCSW02	Batch ID: 33813	Analysis Date: 10/1/2021							SeqNo: 1426713		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	362	79.4	991.9	0	36.5	11.7	130	465.2	24.9	20	R
Aliphatic Hydrocarbon (C10-C12)	288	39.7	496.0	0	58.0	70	130	353.7	20.5	20	RS
Aliphatic Hydrocarbon (C12-C16)	367	39.7	496.0	0	74.0	70	130	382.0	4.05	20	
Aliphatic Hydrocarbon (C16-C21)	336	39.7	496.0	0	67.8	70	130	385.4	13.6	20	S
Aliphatic Hydrocarbon (C21-C34)	395	39.7	496.0	0	79.6	70	130	438.2	10.4	20	
Surr: 1-Chlorooctadecane	330		396.8		83.2	60	140		0		

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

R - High RPD observed.

Sample ID: 2109344-010BMS	SampType: MS	Units: µg/L				Prep Date: 9/23/2021			RunNo: 70283		
Client ID: EB01-0921	Batch ID: 33813	Analysis Date: 10/1/2021							SeqNo: 1426730		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	505	79.7	996.1	0	50.7	8	130				
Aliphatic Hydrocarbon (C10-C12)	353	39.8	498.0	0	70.9	70	130				
Aliphatic Hydrocarbon (C12-C16)	382	39.8	498.0	0	76.7	70	130				
Aliphatic Hydrocarbon (C16-C21)	387	39.8	498.0	0	77.7	70	130				
Aliphatic Hydrocarbon (C21-C34)	438	39.8	498.0	0	88.0	70	130				
Surr: 1-Chlorooctadecane	361		398.4		90.5	60	140				

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A1I0619

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: 2109344-010BMS		SampType: MS		Units: µg/L		Prep Date: 9/23/2021			RunNo: 70283		
Client ID: EB01-0921		Batch ID: 33813		Analysis Date: 10/1/2021						SeqNo: 1426730	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A110619

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: LCS-33787	SampType: LCS	Units: mg/Kg				Prep Date: 9/22/2021			RunNo: 70355		
Client ID: LCSS	Batch ID: 33787	Analysis Date: 9/22/2021							SeqNo: 1427662		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	23.4	2.50	30.00	0	78.1	70	130				
Aliphatic Hydrocarbon (C6-C8)	10.2	1.50	10.00	0	102	70	130				
Aliphatic Hydrocarbon (C8-C10)	9.59	2.50	10.00	0	95.9	70	130				
Aliphatic Hydrocarbon (C10-C12)	10.7	0.500	10.00	0	107	70	130				
Aromatic Hydrocarbon (C8-C10)	31.5	3.00	40.00	0	78.6	70	130				
Aromatic Hydrocarbon (C10-C12)	9.71	0.500	10.00	0	97.1	70	130				
Aromatic Hydrocarbon (C12-C13)	9.92	0.500	10.00	0	99.2	70	130				
Benzene	7.63	0.600	10.00	0	76.3	70	130				
Toluene	7.61	0.500	10.00	0	76.1	70	130				
Ethylbenzene	7.38	1.70	10.00	0	73.8	70	130				
m,p-Xylene	15.1	1.00	20.00	0	75.4	70	130				
o-Xylene	8.17	0.500	10.00	0	81.7	70	130				
Naphthalene	9.39	2.60	10.00	0	93.9	70	130				
Methyl tert-butyl ether (MTBE)	10.1	1.10	10.00	0	101	70	130				
Surr: 1,4-Difluorobenzene	2.42		2.500		97.0	65	140				
Surr: Bromofluorobenzene	2.48		2.500		99.2	65	140				

Sample ID: MB-33787	SampType: MBLK	Units: mg/Kg				Prep Date: 9/22/2021			RunNo: 70355		
Client ID: MBLKS	Batch ID: 33787	Analysis Date: 9/22/2021							SeqNo: 1427639		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	2.50		0	0						
Aliphatic Hydrocarbon (C6-C8)	ND	1.50		0	0						
Aliphatic Hydrocarbon (C8-C10)	ND	2.50		0	0						
Aliphatic Hydrocarbon (C10-C12)	ND	0.500		0	0						
Aromatic Hydrocarbon (C8-C10)	ND	3.00		0	0						
Aromatic Hydrocarbon (C10-C12)	ND	0.500		0	0						
Aromatic Hydrocarbon (C12-C13)	ND	0.500		0	0						
Benzene	ND	0.600		0	0						Q
Toluene	ND	0.500		0	0						Q

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A110619

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: MB-33787	SampType: MBLK	Units: mg/Kg				Prep Date: 9/22/2021			RunNo: 70355		
Client ID: MBLKS	Batch ID: 33787	Analysis Date: 9/22/2021							SeqNo: 1427639		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.70		0	0						Q
m,p-Xylene	ND	1.00		0	0						Q
o-Xylene	ND	0.500		0	0						Q
Naphthalene	ND	2.60		0	0						
Methyl tert-butyl ether (MTBE)	ND	1.10		0	0						
Surr: 1,4-Difluorobenzene	1.91		2.500		76.2	65	140				
Surr: Bromofluorobenzene	2.33		2.500		93.0	65	140				

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet acceptance criteria

Sample ID: LCSD-33787		SampType: LCSD		Units: mg/Kg		Prep Date: 9/22/2021			RunNo: 70355		
Client ID: LCSS02		Batch ID: 33787		Analysis Date: 9/23/2021						SeqNo: 1427660	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	24.2	2.50	30.00	0	80.6	70	130	23.44	3.11	20	
Aliphatic Hydrocarbon (C6-C8)	10.6	1.50	10.00	0	106	70	130	10.16	4.64	20	
Aliphatic Hydrocarbon (C8-C10)	10.2	2.50	10.00	0	102	70	130	9.589	6.51	20	
Aliphatic Hydrocarbon (C10-C12)	10.3	0.500	10.00	0	103	70	130	10.70	3.41	20	
Aromatic Hydrocarbon (C8-C10)	36.6	3.00	40.00	0	91.4	70	130	31.46	15.0	20	
Aromatic Hydrocarbon (C10-C12)	11.0	0.500	10.00	0	110	70	130	9.711	12.3	20	
Aromatic Hydrocarbon (C12-C13)	11.9	0.500	10.00	0	119	70	130	9.918	18.3	20	
Benzene	8.69	0.600	10.00	0	86.9	70	130	7.629	13.0	20	
Toluene	8.73	0.500	10.00	0	87.3	70	130	7.606	13.7	20	
Ethylbenzene	8.68	1.70	10.00	0	86.8	70	130	7.378	16.3	20	
m,p-Xylene	17.3	1.00	20.00	0	86.4	70	130	15.09	13.5	20	
o-Xylene	9.15	0.500	10.00	0	91.5	70	130	8.171	11.3	20	
Naphthalene	11.7	2.60	10.00	0	117	70	130	9.387	21.8	20	
Methyl tert-butyl ether (MTBE)	11.3	1.10	10.00	0	113	70	130	10.10	11.1	20	
Surr: 1,4-Difluorobenzene	2.64		2.500		106	65	140		0		
Surr: Bromofluorobenzene	2.64		2.500		105	65	140		0		

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A1I0619

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: LCS-33811		SampType: LCS		Units: mg/Kg		Prep Date: 9/23/2021			RunNo: 70352		
Client ID: LCSS		Batch ID: 33811					Analysis Date: 9/24/2021			SeqNo: 1427581	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	29.0	2.50	30.00	0	96.5	70	130				
Aliphatic Hydrocarbon (C6-C8)	9.66	1.50	10.00	0	96.6	70	130				
Aliphatic Hydrocarbon (C8-C10)	9.57	2.50	10.00	0	95.7	70	130				
Aliphatic Hydrocarbon (C10-C12)	9.84	0.500	10.00	0	98.4	70	130				
Aromatic Hydrocarbon (C8-C10)	38.3	3.00	40.00	0	95.8	70	130				
Aromatic Hydrocarbon (C10-C12)	9.92	0.500	10.00	0	99.2	70	130				
Aromatic Hydrocarbon (C12-C13)	10.3	0.500	10.00	0	103	70	130				
Benzene	8.91	0.600	10.00	0	89.1	70	130				
Toluene	9.05	0.500	10.00	0	90.5	70	130				
Ethylbenzene	9.20	1.70	10.00	0	92.0	70	130				
m,p-Xylene	18.4	1.00	20.00	0	92.0	70	130				
o-Xylene	9.48	0.500	10.00	0	94.8	70	130				
Naphthalene	9.43	2.60	10.00	0	94.3	70	130				
Methyl tert-butyl ether (MTBE)	10.0	1.10	10.00	0	100	70	130				
Surr: 1,4-Difluorobenzene	2.39		2.500		95.4	65	140				
Surr: Bromofluorobenzene	2.41		2.500		96.4	65	140				

Sample ID: MB-33811		SampType: MBLK		Units: mg/Kg		Prep Date: 9/23/2021			RunNo: 70352		
Client ID: MBLKS		Batch ID: 33811					Analysis Date: 9/24/2021			SeqNo: 1427584	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	2.50		0	0						
Aliphatic Hydrocarbon (C6-C8)	ND	1.50		0	0						
Aliphatic Hydrocarbon (C8-C10)	ND	2.50		0	0						
Aliphatic Hydrocarbon (C10-C12)	ND	0.500		0	0						
Aromatic Hydrocarbon (C8-C10)	ND	3.00		0	0						
Aromatic Hydrocarbon (C10-C12)	ND	0.500		0	0						
Aromatic Hydrocarbon (C12-C13)	ND	0.500		0	0						
Benzene	ND	0.600		0	0						
Toluene	ND	0.500		0	0						

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A110619

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: MB-33811	SampType: MBLK	Units: mg/Kg				Prep Date: 9/23/2021			RunNo: 70352		
Client ID: MBLKS	Batch ID: 33811	Analysis Date: 9/24/2021							SeqNo: 1427584		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.70		0	0						
m,p-Xylene	ND	1.00		0	0						
o-Xylene	ND	0.500		0	0						
Naphthalene	ND	2.60		0	0						
Methyl tert-butyl ether (MTBE)	ND	1.10		0	0						
Surr: 1,4-Difluorobenzene	1.93		2.500		77.0	65	140				
Surr: Bromofluorobenzene	2.30		2.500		91.9	65	140				

Sample ID: 2109344-007BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2021			RunNo: 70352		
Client ID: DU-01-0921-As Receive		Batch ID: 33811		Analysis Date: 9/24/2021						SeqNo: 1427575	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	31.0	2.68	32.14	3.720	84.8	70	130				
Aliphatic Hydrocarbon (C6-C8)	10.6	1.61	10.71	3.344	67.7	70	130				S
Aliphatic Hydrocarbon (C8-C10)	11.5	2.68	10.71	0	107	70	130				
Aliphatic Hydrocarbon (C10-C12)	10.3	0.536	10.71	1.869	78.8	70	130				
Aromatic Hydrocarbon (C8-C10)	40.1	3.21	42.86	0	93.5	70	130				
Aromatic Hydrocarbon (C10-C12)	11.2	0.536	10.71	0.5910	98.7	70	130				
Aromatic Hydrocarbon (C12-C13)	9.24	0.536	10.71	0	86.2	70	130				
Benzene	8.82	0.643	10.71	0	82.4	70	130				
Toluene	9.03	0.536	10.71	0	84.3	70	130				
Ethylbenzene	9.58	1.82	10.71	0	89.4	70	130				
m,p-Xylene	19.0	1.07	21.43	0	88.8	70	130				
o-Xylene	9.47	0.536	10.71	0	88.4	70	130				
Naphthalene	9.41	2.79	10.71	0	87.9	70	130				
Methyl tert-butyl ether (MTBE)	10.5	1.18	10.71	0	97.8	70	130				
Surr: 1,4-Difluorobenzene	2.53		2.679		94.5	65	140				
Surr: Bromofluorobenzene	2.58		2.679		96.5	65	140				

NOTES:

S - Outlying spike recoveries were associated with this sample.

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A1I0619

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: 2109344-008BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2021			RunNo: 70352		
Client ID: DU-02-0921-As Receive		Batch ID: 33811					Analysis Date: 9/24/2021			SeqNo: 1427577	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	4.72	3.56		0	0			5.437	14.1	25	
Aliphatic Hydrocarbon (C6-C8)	2.28	2.14		0	0			2.506	9.34	25	
Aliphatic Hydrocarbon (C8-C10)	ND	3.56		0	0			0		25	
Aliphatic Hydrocarbon (C10-C12)	1.91	0.712		0	0			2.502	27.0	25	
Aromatic Hydrocarbon (C8-C10)	ND	4.27		0	0			0		25	
Aromatic Hydrocarbon (C10-C12)	1.17	0.712		0	0			1.408	18.3	25	
Aromatic Hydrocarbon (C12-C13)	ND	0.712		0	0			0		25	
Benzene	ND	0.855		0	0			0		25	
Toluene	ND	0.712		0	0			0		25	
Ethylbenzene	ND	2.42		0	0			0		25	
m,p-Xylene	ND	1.42		0	0			0		25	
o-Xylene	ND	0.712		0	0			0		25	
Naphthalene	ND	3.70		0	0			0		25	
Methyl tert-butyl ether (MTBE)	ND	1.57		0	0			0		25	
Surr: 1,4-Difluorobenzene	2.78		3.562		78.1	65	140		0		
Surr: Bromofluorobenzene	3.26		3.562		91.5	65	140		0		

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A110619

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: LCS-33789		SampType: LCS		Units: µg/L		Prep Date: 9/22/2021			RunNo: 70333		
Client ID: LCSW		Batch ID: 33789					Analysis Date: 9/29/2021			SeqNo: 1427488	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	696	25.0	600.0	0	116	70	130				
Aliphatic Hydrocarbon (C6-C8)	188	45.0	200.0	0	94.0	70	130				
Aliphatic Hydrocarbon (C8-C10)	217	20.0	200.0	0	108	70	130				
Aliphatic Hydrocarbon (C10-C12)	201	25.0	200.0	0	101	70	130				
Aromatic Hydrocarbon (C8-C10)	1,020	50.0	800.0	0	128	70	130				
Aromatic Hydrocarbon (C10-C12)	208	20.0	200.0	0	104	70	130				
Aromatic Hydrocarbon (C12-C13)	188	25.0	200.0	0	94.0	70	130				
Benzene	242	20.0	200.0	0	121	70	130				
Toluene	248	25.0	200.0	0	124	70	130				
Ethylbenzene	257	25.0	200.0	0	128	70	130				
m,p-Xylene	494	40.0	400.0	0	123	70	130				
o-Xylene	246	20.0	200.0	0	123	70	130				
Naphthalene	198	40.0	200.0	0	99.1	70	130				
Methyl tert-butyl ether (MTBE)	223	25.0	200.0	0	112	70	130				
Surr: 1,4-Difluorobenzene	51.3		50.00		103	65	140				
Surr: Bromofluorobenzene	51.0		50.00		102	65	140				

Sample ID: MB-33789		SampType: MBLK		Units: µg/L		Prep Date: 9/22/2021			RunNo: 70333		
Client ID: MBLKW		Batch ID: 33789					Analysis Date: 9/29/2021			SeqNo: 1427487	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	25.0		0	0						
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		0	0						
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		0	0						
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		0	0						
Aromatic Hydrocarbon (C8-C10)	ND	50.0		0	0						
Aromatic Hydrocarbon (C10-C12)	ND	20.0		0	0						
Aromatic Hydrocarbon (C12-C13)	ND	25.0		0	0						
Benzene	ND	20.0		0	0						
Toluene	ND	25.0		0	0						

Work Order: 2109344
CLIENT: Apex Laboratories
Project: A110619

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: MB-33789	SampType: MBLK	Units: µg/L				Prep Date: 9/22/2021				RunNo: 70333		
Client ID: MBLKW	Batch ID: 33789					Analysis Date: 9/29/2021				SeqNo: 1427487		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Ethylbenzene	ND	25.0		0	0							
m,p-Xylene	ND	40.0		0	0							
o-Xylene	ND	20.0		0	0							
Naphthalene	ND	40.0		0	0							
Methyl tert-butyl ether (MTBE)	ND	25.0		0	0							
Surr: 1,4-Difluorobenzene	39.4		50.00		78.9	65	140					
Surr: Bromofluorobenzene	48.8		50.00		97.6	65	140					

Sample ID: LCSD-33789	SampType: LCSD	Units: µg/L				Prep Date: 9/22/2021			RunNo: 70333		
Client ID: LCSW02	Batch ID: 33789	Analysis Date: 9/30/2021							SeqNo: 1427486		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	658	25.0	600.0	0	110	70	130	695.7	5.57	20	
Aliphatic Hydrocarbon (C6-C8)	159	45.0	200.0	0	79.4	70	130	187.9	16.8	20	
Aliphatic Hydrocarbon (C8-C10)	184	20.0	200.0	0	92.1	70	130	216.9	16.4	20	
Aliphatic Hydrocarbon (C10-C12)	205	25.0	200.0	0	102	70	130	201.3	1.72	20	
Aromatic Hydrocarbon (C8-C10)	1,020	50.0	800.0	0	127	70	130	1,024	0.502	20	
Aromatic Hydrocarbon (C10-C12)	227	20.0	200.0	0	114	70	130	208.1	8.68	20	
Aromatic Hydrocarbon (C12-C13)	226	25.0	200.0	0	113	70	130	187.9	18.4	20	
Benzene	236	20.0	200.0	0	118	70	130	242.0	2.36	20	
Toluene	243	25.0	200.0	0	122	70	130	247.5	1.68	20	
Ethylbenzene	254	25.0	200.0	0	127	70	130	256.5	1.05	20	
m,p-Xylene	490	40.0	400.0	0	122	70	130	494.0	0.905	20	
o-Xylene	245	20.0	200.0	0	123	70	130	246.4	0.536	20	
Naphthalene	215	40.0	200.0	0	107	70	130	198.3	8.00	20	
Methyl tert-butyl ether (MTBE)	230	25.0	200.0	0	115	70	130	223.0	2.99	20	
Surr: 1,4-Difluorobenzene	51.9		50.00		104	65	140		0		
Surr: Bromofluorobenzene	53.8		50.00		108	65	140		0		

Client Name: **APEX**
 Logged by: **Clare Griggs**

Work Order Number: **2109344**
 Date Received: **9/22/2021 9:35:00 AM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? UPS

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
 7. Were all items received at a temperature of >2°C to 6°C * Yes ☒ No ☐ NA ☐
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

Item Information

Item #	Temp °C
Sample 1	4.1
Sample 2	2.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT ORDER

2109344

Apex Laboratories

AS 9/20/21 A110619

15

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Fremont Analytical
3600 Fremont Avenue N.
Seattle, WA 98103
Phone: (206) 352-3790
Fax: (206) 352-7178

Sample Name: HA-01-0921

Soil

Sampled: 09/14/21 13:10

(A110619-06)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/28/21 13:10	
NWTPH-VPH (Sub)	09/30/21 17:00	09/28/21 13:10	
Containers Supplied:			
(C)40 mL VOA - 5035 (MeOH)			
(D)4 oz Glass Jar			

Sample Name: HA-02-0921

Soil

Sampled: 09/14/21 11:45

(A110619-07)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/28/21 11:45	
NWTPH-VPH (Sub)	09/30/21 17:00	09/28/21 11:45	
Containers Supplied:			
(C)4 oz Glass Jar			
(D)40 mL VOA - 5035 (MeOH)			

Sample Name: HA-03-0921

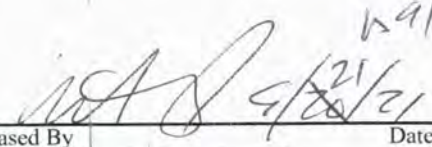
Soil

Sampled: 09/13/21 16:20

(A110619-08)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/27/21 16:20	
NWTPH-VPH (Sub)	09/30/21 17:00	09/27/21 16:20	
Containers Supplied:			
(C)4 oz Glass Jar			
(D)40 mL VOA - 5035 (MeOH)			

Standard TAT

Released By  Date 9/21/21

UPS (Shipper)

Released By _____ Date _____

UPS (Shipper)

Received By  Date 9/22/21 9:46

Received By _____ Date _____

SUBCONTRACT ORDER

2109344

Apex Laboratories

083 9204 A110619 JS

Sample Name: HA-1003-0921 Soil Sampled: 09/13/21 16:25 (A110619-09)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/27/21 16:25	
NWTPH-VPH (Sub)	09/30/21 17:00	09/27/21 16:25	
Containers Supplied:			
(C)4 oz Glass Jar			
(D)40 mL VOA - 5035 (MeOH)			

Sample Name: DU-01-0921---As Received Soil Sampled: 09/14/21 17:00 (A110619-10)

Analysis	Due	Expires	Comments
NWTPH-VPH (Sub)	09/30/21 17:00	09/28/21 17:00	
Containers Supplied:			
(C)2 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			

Sample Name: DU-01-0921---After Processing Soil Sampled: 09/14/21 17:00 (A110619-11)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/28/21 17:00	
Containers Supplied:			
(B)4 oz Glass Jar			

Sample Name: DU-02-0921---As Received Soil Sampled: 09/15/21 16:30 (A110619-12)

Analysis	Due	Expires	Comments
NWTPH-VPH (Sub)	09/30/21 17:00	09/29/21 16:30	
Containers Supplied:			
(C)2 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			

Sample Name: DU-02-0921---After Processing Soil Sampled: 09/15/21 16:30 (A110619-13)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/29/21 16:30	
Containers Supplied:			
(B)4 oz Glass Jar			

Standard TAT

UPS (Shipper)

Released By Date

UPS (Shipper)

Received By Date

Received By Date

SUBCONTRACT ORDER

2109344

Apex Laboratories

CAS 9/20/21 A110619

Sample Name: HA-1003-0921 Soil Sampled: 09/13/21 16:25 (A110619-09)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/27/21 16:25	
NWTPH-VPH (Sub)	09/30/21 17:00	09/27/21 16:25	
Containers Supplied:			
(C)4 oz Glass Jar			
(D)40 mL VOA - 5035 (MeOH)			

Sample Name: DU-01-0921---As Received Soil Sampled: 09/14/21 17:00 (A110619-10)

Analysis	Due	Expires	Comments
NWTPH-VPH (Sub)	09/30/21 17:00	09/28/21 17:00	
Containers Supplied:			
(C)2 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			

Sample Name: DU-01-0921---After Processing Soil Sampled: 09/14/21 17:00 (A110619-11)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/28/21 17:00	
Containers Supplied:			
(B)4 oz Glass Jar			

Sample Name: DU-02-0921---As Received Soil Sampled: 09/15/21 16:30 (A110619-12)

Analysis	Due	Expires	Comments
NWTPH-VPH (Sub)	09/30/21 17:00	09/29/21 16:30	
Containers Supplied:			
(C)2 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			

Sample Name: DU-02-0921---After Processing Soil Sampled: 09/15/21 16:30 (A110619-13)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/29/21 16:30	
Containers Supplied:			
(B)4 oz Glass Jar			

Standard TAT

Released By

Date

UPS (Shipper)

Received By

Date

Released By

Date

Received By

Date

UPS (Shipper)

SUBCONTRACT ORDER

Apex Laboratories

A110619

2109344

CAB 9/20/21

Sample Name: SB18-9-10-0921

Soil

Sampled: 09/16/21 14:35

(A110619-14)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 14:35	
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 14:35	
Containers Supplied:			
(C)40 mL VOA - 5035 (MeOH)			
(D)4 oz Glass Jar			

CoC lists 17 containers, received 18

Sample Name: EB01-0921

Water

Sampled: 09/16/21 17:25

(A110619-15)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 17:25	
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 17:25	
Containers Supplied:			
(I)1 L Amber Glass - HCL			
(J)1 L Amber Glass - HCL			
(Q)40 mL VOA - HCL			
(R)40 mL VOA - HCL			

CoC lists 14 containers, received 13

Sample Name: EB02-0921

Water

Sampled: 09/16/21 17:55

(A110619-16)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 17:55	
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 17:55	
Containers Supplied:			
(G)1 L Amber Glass - HCL			
(L)40 mL VOA - HCL			
(M)40 mL VOA - HCL			

Sample Name: SW04-0921

Water

Sampled: 09/16/21 10:30

(A110619-17)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 10:30	
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 10:30	
Containers Supplied:			
(I)1 L Amber Glass - HCL			
(J)1 L Amber Glass - HCL			
(O)40 mL VOA - HCL			
(P)40 mL VOA - HCL			

Standard TAT

UPS (Shipper)

Released By

Date

UPS (Shipper)

Received By

Date

Released By

Date

Received By

Date

SUBCONTRACT ORDER

2109344

Apex Laboratories

OB 9/20/21 A110619

Sample Name: SW05-0921

Water

Sampled: 09/16/21 11:35

(A110619-18)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 11:35	
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 11:35	
Containers Supplied:			
(I)1 L Amber Glass - HCL			
(J)1 L Amber Glass - HCL			
(O)40 mL VOA - HCL			
(P)40 mL VOA - HCL			

Sample Name: SW06-0921

Water

Sampled: 09/16/21 15:00

(A110619-19)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 15:00	
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 15:00	
Containers Supplied:			
(I)1 L Amber Glass - HCL			
(J)1 L Amber Glass - HCL			
(O)40 mL VOA - HCL			
(P)40 mL VOA - HCL			

Sample Name: SW1006-0921

Water

Sampled: 09/16/21 15:15

(A110619-20)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 15:15	
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 15:15	
Containers Supplied:			
(I)1 L Amber Glass - HCL			
(J)1 L Amber Glass - HCL			
(O)40 mL VOA - HCL			
(P)40 mL VOA - HCL			

Standard TAT

Released By

Date

Received By

Date

UPS (Shipper)

UPS (Shipper)

Released By

Date

Received By

Date



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Tuesday, November 16, 2021

Genevieve Schutzius
GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

RE: A110619 - Eatonville - 0171.067

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A110619, which was received by the laboratory on 9/17/2021 at 2:12:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	3.3 degC	Cooler #2	2.7 degC
Cooler #3	3.4 degC	Cooler #4	1.4 degC
Cooler #5	4.8 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-01A-0921	A110619-01	Soil	09/14/21 13:05	09/17/21 14:12
HA-01B-0921	A110619-02	Soil	09/14/21 12:55	09/17/21 14:12
HA-01C(alt)-0921	A110619-03	Soil	09/14/21 12:40	09/17/21 14:12
HA-01D(alt)-0921	A110619-04	Soil	09/14/21 12:25	09/17/21 14:12
HA-01E(alt)-0921	A110619-05	Soil	09/14/21 12:15	09/17/21 14:12
HA-01-0921	A110619-06	Soil	09/14/21 13:10	09/17/21 14:12
HA-02-0921	A110619-07	Soil	09/14/21 11:45	09/17/21 14:12
HA-03-0921	A110619-08	Soil	09/13/21 16:20	09/17/21 14:12
HA-1003-0921	A110619-09	Soil	09/13/21 16:25	09/17/21 14:12
DU-01-0921---As Received	A110619-10	Soil	09/14/21 17:00	09/17/21 14:12
DU-01-0921---After Processing	A110619-11	Soil	09/14/21 17:00	09/17/21 14:12
DU-02-0921---As Received	A110619-12	Soil	09/15/21 16:30	09/17/21 14:12
DU-02-0921---After Processing	A110619-13	Soil	09/15/21 16:30	09/17/21 14:12
SB18-9-10-0921	A110619-14	Soil	09/16/21 14:35	09/17/21 14:12
EB01-0921	A110619-15	Water	09/16/21 17:25	09/17/21 14:12
EB02-0921	A110619-16	Water	09/16/21 17:55	09/17/21 14:12
SW04-0921	A110619-17	Water	09/16/21 10:30	09/17/21 14:12
SW05-0921	A110619-18	Water	09/16/21 11:35	09/17/21 14:12
SW06-0921	A110619-19	Water	09/16/21 15:00	09/17/21 14:12
SW1006-0921	A110619-20	Water	09/16/21 15:15	09/17/21 14:12
TB01-0921	A110619-21	Water	09/16/21 13:45	09/17/21 14:12

Apex Laboratories

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Philip Nerenberg, Lab Director

Page 2 of 173

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06)				Matrix: Soil		Batch: 1091097	COMP, H-01	
Acetone	ND	2.90	5.79	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Acrylonitrile	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Benzene	ND	0.0290	0.0579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromochloromethane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromodichloromethane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromoform	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromomethane	ND	2.90	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
2-Butanone (MEK)	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
n-Butylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
sec-Butylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
tert-Butylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Carbon disulfide	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Carbon tetrachloride	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Chlorobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Chloroethane	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Chloroform	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Chloromethane	ND	0.724	1.45	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
2-Chlorotoluene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
4-Chlorotoluene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Dibromochloromethane	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.724	1.45	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Dibromomethane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Dichlorodifluoromethane	ND	0.579	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1-Dichloroethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1-Dichloroethene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06)				Matrix: Soil		Batch: 1091097	COMP, H-01	
1,2-Dichloropropane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,3-Dichloropropane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
2,2-Dichloropropane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1-Dichloropropene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Ethylbenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Hexachlorobutadiene	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
2-Hexanone	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Isopropylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
4-Isopropyltoluene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Methylene chloride	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Naphthalene	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
n-Propylbenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Styrene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Toluene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.724	1.45	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.724	1.45	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Trichloroethene (TCE)	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Trichlorofluoromethane	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2,3-Trichloropropane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Vinyl chloride	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
m,p-Xylene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
o-Xylene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06)				Matrix: Soil		Batch: 1091097		COMP, H-01
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 109 %	Limits: 80-120 %	1	09/29/21 15:16	5035A/8260D		
Toluene-d8 (Surr)		97 %	80-120 %	1	09/29/21 15:16	5035A/8260D		
4-Bromofluorobenzene (Surr)		95 %	79-120 %	1	09/29/21 15:16	5035A/8260D		
HA-02-0921 (A110619-07)				Matrix: Soil		Batch: 1091097		H-01
Acetone	ND	4.00	7.99	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Acrylonitrile	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Benzene	ND	0.0400	0.0799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromochloromethane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromodichloromethane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromoform	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromomethane	ND	4.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
2-Butanone (MEK)	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
n-Butylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
sec-Butylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
tert-Butylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Carbon disulfide	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Carbon tetrachloride	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Chlorobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Chloroethane	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Chloroform	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Chloromethane	ND	0.999	2.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
2-Chlorotoluene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
4-Chlorotoluene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Dibromochloromethane	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.999	2.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Dibromomethane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Dichlorodifluoromethane	ND	0.799	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1-Dichloroethane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02-0921 (A110619-07)				Matrix: Soil		Batch: 1091097		H-01
1,2-Dichloroethane (EDC)	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1-Dichloroethene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2-Dichloropropane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,3-Dichloropropane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
2,2-Dichloropropane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1-Dichloropropene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Ethylbenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Hexachlorobutadiene	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
2-Hexanone	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Isopropylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
4-Isopropyltoluene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Methylene chloride	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Naphthalene	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
n-Propylbenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Styrene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Toluene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.999	2.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.999	2.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Trichloroethene (TCE)	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Trichlorofluoromethane	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2,3-Trichloropropane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02-0921 (A110619-07)		Matrix: Soil			Batch: 1091097		H-01	
1,3,5-Trimethylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Vinyl chloride	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
m,p-Xylene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
o-Xylene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>111 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>09/29/21 15:43</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>97 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/29/21 15:43</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>95 %</i>		<i>79-120 %</i>	<i>1</i>	<i>09/29/21 15:43</i>	<i>5035A/8260D</i>
HA-03-0921 (A110619-08)		Matrix: Soil			Batch: 1091097		H-01	
Acetone	ND	5.29	10.6	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Acrylonitrile	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Benzene	ND	0.0529	0.106	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromochloromethane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromodichloromethane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromoform	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromomethane	ND	5.29	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
2-Butanone (MEK)	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
n-Butylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
sec-Butylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
tert-Butylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Carbon disulfide	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Carbon tetrachloride	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Chlorobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Chloroethane	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Chloroform	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Chloromethane	ND	1.32	2.64	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
2-Chlorotoluene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
4-Chlorotoluene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Dibromochloromethane	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	1.32	2.64	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Dibromomethane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dichlorobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-0921 (A110619-08)				Matrix: Soil		Batch: 1091097		H-01
1,3-Dichlorobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,4-Dichlorobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Dichlorodifluoromethane	ND	1.06	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1-Dichloroethane	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1-Dichloroethene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dichloropropane	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,3-Dichloropropane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
2,2-Dichloropropane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1-Dichloropropene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Ethylbenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Hexachlorobutadiene	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
2-Hexanone	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Isopropylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
4-Isopropyltoluene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Methylene chloride	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Naphthalene	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
n-Propylbenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Styrene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Toluene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2,3-Trichlorobenzene	ND	1.32	2.64	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2,4-Trichlorobenzene	ND	1.32	2.64	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1,1-Trichloroethane	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1,2-Trichloroethane	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-0921 (A110619-08)				Matrix: Soil		Batch: 1091097		H-01
Trichloroethene (TCE)	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Trichlorofluoromethane	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2,3-Trichloropropane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Vinyl chloride	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
m,p-Xylene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
o-Xylene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 111 %		Limits: 80-120 %	1	09/29/21 13:02	5035A/8260D	
Toluene-d8 (Surr)		97 %		80-120 %	1	09/29/21 13:02	5035A/8260D	
4-Bromofluorobenzene (Surr)		99 %		79-120 %	1	09/29/21 13:02	5035A/8260D	
HA-1003-0921 (A110619-09)				Matrix: Soil		Batch: 1091097		H-01
Acetone	ND	6.42	12.8	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Acrylonitrile	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Benzene	ND	0.0642	0.128	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromochloromethane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromodichloromethane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromoform	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromomethane	ND	6.42	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
2-Butanone (MEK)	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
n-Butylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
sec-Butylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
tert-Butylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Carbon disulfide	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Carbon tetrachloride	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Chlorobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Chloroethane	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Chloroform	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Chloromethane	ND	1.61	3.21	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
2-Chlorotoluene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
4-Chlorotoluene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Dibromochloromethane	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A110619-09)				Matrix: Soil		Batch: 1091097		H-01
1,2-Dibromo-3-chloropropane	ND	1.61	3.21	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Dibromomethane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2-Dichlorobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,3-Dichlorobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,4-Dichlorobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Dichlorodifluoromethane	ND	1.28	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1-Dichloroethane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1-Dichloroethene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2-Dichloropropane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,3-Dichloropropane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
2,2-Dichloropropane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1-Dichloropropene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Ethylbenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Hexachlorobutadiene	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
2-Hexanone	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Isopropylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
4-Isopropyltoluene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Methylene chloride	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Naphthalene	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
n-Propylbenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Styrene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Toluene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A110619-09)				Matrix: Soil		Batch: 1091097		H-01
1,2,3-Trichlorobenzene	ND	1.61	3.21	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2,4-Trichlorobenzene	ND	1.61	3.21	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1,1-Trichloroethane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1,2-Trichloroethane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Trichloroethene (TCE)	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Trichlorofluoromethane	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2,3-Trichloropropane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Vinyl chloride	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
m,p-Xylene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
o-Xylene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 111 %		Limits: 80-120 %	1	09/29/21 13:28	5035A/8260D	
Toluene-d8 (Surr)		96 %		80-120 %	1	09/29/21 13:28	5035A/8260D	
4-Bromofluorobenzene (Surr)		97 %		79-120 %	1	09/29/21 13:28	5035A/8260D	
DU-01-0921---As Received (A110619-10)				Matrix: Soil		Batch: 1091097		H-01
Acetone	ND	0.544	1.09	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Acrylonitrile	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Benzene	ND	0.00544	0.0109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromochloromethane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromodichloromethane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromoform	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromomethane	ND	0.544	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
2-Butanone (MEK)	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
n-Butylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
sec-Butylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
tert-Butylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Carbon disulfide	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Carbon tetrachloride	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Chlorobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Chloroethane	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Chloroform	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-01-0921---As Received (A110619-10)				Matrix: Soil		Batch: 1091097		H-01
Chloromethane	ND	0.136	0.272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
2-Chlorotoluene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
4-Chlorotoluene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Dibromochloromethane	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.136	0.272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Dibromomethane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Dichlorodifluoromethane	ND	0.109	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1-Dichloroethane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1-Dichloroethene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dichloropropane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,3-Dichloropropane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
2,2-Dichloropropane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1-Dichloropropene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Ethylbenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Hexachlorobutadiene	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
2-Hexanone	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Isopropylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
4-Isopropyltoluene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Methylene chloride	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Naphthalene	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
n-Propylbenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Styrene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-01-0921---As Received (A110619-10)				Matrix: Soil		Batch: 1091097		H-01
1,1,1,2-Tetrachloroethane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Toluene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.136	0.272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.136	0.272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Trichloroethene (TCE)	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Trichlorofluoromethane	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2,3-Trichloropropane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Vinyl chloride	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
m,p-Xylene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
o-Xylene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 108 %		Limits: 80-120 %	1	09/29/21 13:55	5035A/8260D	
Toluene-d8 (Surr)		98 %		80-120 %	1	09/29/21 13:55	5035A/8260D	
4-Bromofluorobenzene (Surr)		97 %		79-120 %	1	09/29/21 13:55	5035A/8260D	
DU-02-0921---As Received (A110619-12)				Matrix: Soil		Batch: 1091097		
Acetone	ND	0.724	1.45	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Acrylonitrile	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Benzene	ND	0.00724	0.0145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromochloromethane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromodichloromethane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromoform	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromomethane	ND	0.724	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
2-Butanone (MEK)	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
n-Butylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
sec-Butylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
tert-Butylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Carbon disulfide	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-02-0921---As Received (A110619-12)				Matrix: Soil		Batch: 1091097		
Carbon tetrachloride	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Chlorobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Chloroethane	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Chloroform	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Chloromethane	ND	0.181	0.362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
2-Chlorotoluene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
4-Chlorotoluene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Dibromochloromethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.181	0.362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Dibromomethane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Dichlorodifluoromethane	ND	0.145	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1-Dichloroethane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1-Dichloroethene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dichloropropane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,3-Dichloropropane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
2,2-Dichloropropane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1-Dichloropropene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Ethylbenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Hexachlorobutadiene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
2-Hexanone	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Isopropylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
4-Isopropyltoluene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Methylene chloride	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-02-0921---As Received (A110619-12)				Matrix: Soil		Batch: 1091097		
Methyl tert-butyl ether (MTBE)	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Naphthalene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
n-Propylbenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Styrene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Toluene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.181	0.362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.181	0.362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Trichloroethene (TCE)	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Trichlorofluoromethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2,3-Trichloropropane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Vinyl chloride	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
m,p-Xylene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
o-Xylene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 112 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>09/29/21 14:22</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/29/21 14:22</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>	<i>1</i>	<i>09/29/21 14:22</i>	<i>5035A/8260D</i>	

SB18-9-10-0921 (A110619-14)**Matrix: Soil****Batch: 1091097**

Acetone	ND	0.871	1.74	mg/kg dry	50	09/29/21 14:49	5035A/8260D
Acrylonitrile	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D
Benzene	ND	0.00871	0.0174	mg/kg dry	50	09/29/21 14:49	5035A/8260D
Bromobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D
Bromochloromethane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D
Bromodichloromethane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D
Bromoform	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D
Bromomethane	ND	0.871	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D
2-Butanone (MEK)	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A110619-14)				Matrix: Soil		Batch: 1091097		
n-Butylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
sec-Butylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
tert-Butylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Carbon disulfide	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Carbon tetrachloride	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Chlorobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Chloroethane	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Chloroform	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Chloromethane	ND	0.218	0.435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
2-Chlorotoluene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
4-Chlorotoluene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Dibromochloromethane	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.218	0.435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Dibromomethane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Dichlorodifluoromethane	ND	0.174	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1-Dichloroethane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1-Dichloroethene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dichloropropane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,3-Dichloropropane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
2,2-Dichloropropane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1-Dichloropropene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Ethylbenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Hexachlorobutadiene	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
2-Hexanone	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A110619-14)				Matrix: Soil		Batch: 1091097		
Isopropylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
4-Isopropyltoluene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Methylene chloride	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Naphthalene	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
n-Propylbenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Styrene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Tetrachloroethene (PCE)	0.0601	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Toluene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.218	0.435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.218	0.435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Trichloroethene (TCE)	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Trichlorofluoromethane	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2,3-Trichloropropane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Vinyl chloride	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
m,p-Xylene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
o-Xylene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>108 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>09/29/21 14:49</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>98 %</i>	<i>80-120 %</i>	<i>1</i>	<i>09/29/21 14:49</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>95 %</i>	<i>79-120 %</i>	<i>1</i>	<i>09/29/21 14:49</i>	<i>5035A/8260D</i>	

EB01-0921 (A110619-15)**Matrix: Water****Batch: 1090931**

Acetone	ND	10.0	20.0	ug/L	1	09/24/21 16:23	EPA 8260D
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 16:23	EPA 8260D
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 16:23	EPA 8260D
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A110619-15)		Matrix: Water			Batch: 1090931			
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 16:23	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 16:23	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A110619-15)		Matrix: Water			Batch: 1090931			
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 16:23	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 16:23	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %	1	09/24/21 16:23	EPA 8260D	
Toluene-d8 (Surr)		101 %		80-120 %	1	09/24/21 16:23	EPA 8260D	
4-Bromofluorobenzene (Surr)		101 %		80-120 %	1	09/24/21 16:23	EPA 8260D	

EB02-0921 (A110619-16)**Matrix: Water****Batch: 1090931**

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A110619-16)		Matrix: Water			Batch: 1090931			
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 16:50	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 16:50	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A110619-16)		Matrix: Water			Batch: 1090931			
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 16:50	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 16:50	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A110619-16)		Matrix: Water				Batch: 1090931		
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 104 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>09/24/21 16:50</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 16:50</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 16:50</i>	<i>EPA 8260D</i>	
SW04-0921 (A110619-17)		Matrix: Water				Batch: 1090931		
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 17:17	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 17:17	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW04-0921 (A110619-17)		Matrix: Water			Batch: 1090931			
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 17:17	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 17:17	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW04-0921 (A110619-17)		Matrix: Water			Batch: 1090931			
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>103 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>09/24/21 17:17</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 17:17</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 17:17</i>	<i>EPA 8260D</i>
SW05-0921 (A110619-18)		Matrix: Water			Batch: 1090931			
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 17:45	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 17:45	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A110619-18)		Matrix: Water			Batch: 1090931			
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 17:45	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 17:45	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 17:45	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A110619-18)		Matrix: Water			Batch: 1090931			
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>104 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>09/24/21 17:45</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 17:45</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 17:45</i>	<i>EPA 8260D</i>
SW06-0921 (A110619-19)		Matrix: Water			Batch: 1090931			
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 18:12	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 18:12	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW06-0921 (A110619-19)		Matrix: Water			Batch: 1090931			
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 18:12	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 18:12	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW06-0921 (A110619-19)		Matrix: Water			Batch: 1090931			
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>105 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>09/24/21 18:12</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 18:12</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 18:12</i>	<i>EPA 8260D</i>

SW1006-0921 (A110619-20)		Matrix: Water			Batch: 1090931			
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 18:39	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 18:39	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A110619-20)		Matrix: Water			Batch: 1090931			
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 18:39	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 18:39	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A110619-20)		Matrix: Water			Batch: 1090931			
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 18:39	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>105 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>09/24/21 18:39</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 18:39</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 18:39</i>	<i>EPA 8260D</i>

TB01-0921 (A110619-21)		Matrix: Water			Batch: 1090931			
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 15:56	EPA 8260D	

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB01-0921 (A110619-21)		Matrix: Water			Batch: 1090931			
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 15:56	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 15:56	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB01-0921 (A110619-21)		Matrix: Water			Batch: 1090931			
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 15:56	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>09/24/21 15:56</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 15:56</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>104 %</i>		<i>80-120 %</i>	<i>1</i>	<i>09/24/21 15:56</i>	<i>EPA 8260D</i>	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06)		Matrix: Soil		Batch: 1090703		C-07		
Aroclor 1016	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1221	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1232	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1242	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1248	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1254	0.0704	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	P-09
Aroclor 1260	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	A-01a
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 60-125 %</i>	<i>1</i>	<i>09/20/21 17:55</i>	<i>EPA 8082A</i>	
HA-02-0921 (A110619-07)		Matrix: Soil		Batch: 1090703		C-07		
Aroclor 1016	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1221	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1232	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1242	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1248	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1254	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1260	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 66 %</i>		<i>Limits: 60-125 %</i>	<i>1</i>	<i>09/20/21 19:08</i>	<i>EPA 8082A</i>	
HA-03-0921 (A110619-08)		Matrix: Soil		Batch: 1090703		C-07		
Aroclor 1016	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1221	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1232	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1242	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1248	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1254	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1260	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 75 %</i>		<i>Limits: 60-125 %</i>	<i>1</i>	<i>09/20/21 19:45</i>	<i>EPA 8082A</i>	
HA-1003-0921 (A110619-09)		Matrix: Soil		Batch: 1090703		C-07		
Aroclor 1016	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1221	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1232	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A110619-09)		Matrix: Soil			Batch: 1090703		C-07	
Aroclor 1242	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1248	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1254	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1260	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 84 %		Limits: 60-125 %	1	09/20/21 20:22	EPA 8082A	
DU-01-0921---After Processing (A110619-11)		Matrix: Soil			Batch: 21J1037		C-07	
Aroclor 1016	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1221	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1232	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1242	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1248	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1254	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1260	ND	0.00960	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 91 %		Limits: 60-125 %	1	10/28/21 16:55	EPA 8082A	
DU-02-0921---After Processing (A110619-13)		Matrix: Soil			Batch: 21J1037		C-07	
Aroclor 1016	ND	0.0101	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	
Aroclor 1221	ND	0.00505	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	
Aroclor 1232	ND	0.0101	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	
Aroclor 1242	ND	0.0101	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	
Aroclor 1248	ND	0.0172	0.0172	mg/kg dry	1	10/28/21 18:05	EPA 8082A	R-02
Aroclor 1254	ND	0.0556	0.0556	mg/kg dry	1	10/28/21 18:05	EPA 8082A	R-02
Aroclor 1260	0.0319	0.00505	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	P-09
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 89 %		Limits: 60-125 %	1	10/28/21 18:05	EPA 8082A	
SB18-9-10-0921 (A110619-14)		Matrix: Soil			Batch: 1090703		C-07	
Aroclor 1016	ND	0.0128	0.0128	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
Aroclor 1221	ND	0.0547	0.0547	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
Aroclor 1232	ND	0.0326	0.0326	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
Aroclor 1242	ND	0.0169	0.0169	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
Aroclor 1248	ND	0.0116	0.0116	mg/kg dry	1	09/20/21 17:18	EPA 8082A	
Aroclor 1254	ND	0.0332	0.0332	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A110619-14)				Matrix: Soil		Batch: 1090703		C-07
Aroclor 1260	ND	0.0268	0.0268	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 84 %</i>	<i>Limits: 60-125 %</i>	<i>1</i>	<i>09/20/21 17:18</i>	<i>EPA 8082A</i>		
EB01-0921 (A110619-15)				Matrix: Water		Batch: 1091107		C-07
Aroclor 1016	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1221	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1232	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1242	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1248	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1254	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1260	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 68 %</i>	<i>Limits: 40-135 %</i>	<i>1</i>	<i>09/29/21 18:34</i>	<i>EPA 8082A</i>		
EB02-0921 (A110619-16)				Matrix: Water		Batch: 1091107		C-07
Aroclor 1016	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1221	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1232	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1242	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1248	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1254	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1260	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 84 %</i>	<i>Limits: 40-135 %</i>	<i>1</i>	<i>09/29/21 17:23</i>	<i>EPA 8082A</i>		
SW04-0921 (A110619-17)				Matrix: Water		Batch: 1091107		C-07
Aroclor 1016	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1221	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1232	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1242	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1248	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1254	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1260	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 70 %</i>	<i>Limits: 40-135 %</i>	<i>1</i>	<i>09/29/21 17:41</i>	<i>EPA 8082A</i>		

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A110619-18)		Matrix: Water			Batch: 1091107		C-07	
Aroclor 1016	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1221	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1232	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1242	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1248	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1254	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1260	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 40-135 %</i>	<i>1</i>	<i>09/29/21 17:59</i>	<i>EPA 8082A</i>	
SW06-0921 (A110619-19)		Matrix: Water			Batch: 1091107		C-07	
Aroclor 1016	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1221	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1232	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1242	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1248	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1254	ND	0.0943	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1260	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 83 %</i>		<i>Limits: 40-135 %</i>	<i>1</i>	<i>09/29/21 18:16</i>	<i>EPA 8082A</i>	
SW1006-0921 (A110619-20)		Matrix: Water			Batch: 1091107		C-07	
Aroclor 1016	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1221	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1232	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1242	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1248	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1254	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1260	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 79 %</i>		<i>Limits: 40-135 %</i>	<i>1</i>	<i>09/29/21 18:34</i>	<i>EPA 8082A</i>	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06RE1)				Matrix: Soil		Batch: 1090986		
Acenaphthene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Acenaphthylene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Anthracene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Benz(a)anthracene	0.0833	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Benzo(a)pyrene	0.111	0.0997	0.199	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Benzo(b)fluoranthene	0.112	0.0997	0.199	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Benzo(k)fluoranthene	ND	0.0997	0.199	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Benzo(g,h,i)perylene	0.0739	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Chrysene	0.142	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Dibenz(a,h)anthracene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Fluoranthene	0.242	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Fluorene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1-Methylnaphthalene	ND	0.133	0.266	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Methylnaphthalene	ND	0.133	0.266	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Naphthalene	0.265	0.133	0.266	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Phenanthrene	0.397	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Pyrene	0.173	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Carbazole	ND	0.0997	0.199	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Dibenzofuran	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Chlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4-Dichlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4-Dimethylphenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4-Dinitrophenol	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Methylphenol	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
3+4-Methylphenol(s)	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Nitrophenol	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Nitrophenol	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Phenol	0.179	0.133	0.266	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
2,3,4,6-Tetrachlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06RE1)				Matrix: Soil		Batch: 1090986		
2,3,5,6-Tetrachlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Nitrobenzene	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.997	1.99	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Butyl benzyl phthalate	1.99	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Diethylphthalate	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Dimethylphthalate	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Di-n-butylphthalate	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Di-n-octyl phthalate	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
N-Nitrosodimethylamine	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Hexachlorobenzene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Hexachlorobutadiene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Hexachloroethane	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Chloronaphthalene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Aniline	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Chloroaniline	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Nitroaniline	ND	1.33	2.66	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
3-Nitroaniline	ND	1.33	2.66	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Nitroaniline	ND	1.33	2.66	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4-Dinitrotoluene	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,6-Dinitrotoluene	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Benzoic acid	ND	8.33	16.6	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Benzyl alcohol	ND	0.663	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06RE1)		Matrix: Soil			Batch: 1090986			
Isophorone	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
3,3'-Dichlorobenzidine	ND	1.33	2.66	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,3-Dinitrobenzene	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,4-Dinitrobenzene	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Pyridine	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,2-Dichlorobenzene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,3-Dichlorobenzene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,4-Dichlorobenzene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	63 %	<i>Limits:</i>	37-122 %	20	09/27/21 16:55	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			74 %		44-120 %	20	09/27/21 16:55	EPA 8270E
<i>Phenol-d6 (Surr)</i>			58 %		33-122 %	20	09/27/21 16:55	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			74 %		54-127 %	20	09/27/21 16:55	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			52 %		35-120 %	20	09/27/21 16:55	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			97 %		39-132 %	20	09/27/21 16:55	EPA 8270E
HA-02-0921 (A110619-07)		Matrix: Soil			Batch: 1090986			R-04
Acenaphthene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Acenaphthylene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Anthracene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benz(a)anthracene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzo(a)pyrene	0.0687	0.0642	0.128	mg/kg dry	10	09/27/21 15:45	EPA 8270E	J
Benzo(b)fluoranthene	ND	0.0642	0.128	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0642	0.128	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Chrysene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Fluoranthene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Fluorene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1-Methylnaphthalene	ND	0.0858	0.171	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Methylnaphthalene	ND	0.0858	0.171	mg/kg dry	10	09/27/21 15:45	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02-0921 (A110619-07)				Matrix: Soil		Batch: 1090986		R-04
Naphthalene	ND	0.0858	0.171	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Phenanthrene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Pyrene	0.0551	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	J
Carbazole	ND	0.0642	0.128	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Dibenzofuran	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Chlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4-Dichlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4-Dimethylphenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4-Dinitrophenol	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Methylphenol	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
3+4-Methylphenol(s)	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Nitrophenol	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Nitrophenol	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Phenol	0.0860	0.0858	0.171	mg/kg dry	10	09/27/21 15:45	EPA 8270E	J
2,3,4,6-Tetrachlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Nitrobenzene	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.642	1.28	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Butyl benzyl phthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Diethylphthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Dimethylphthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Di-n-butylphthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Di-n-octyl phthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
N-Nitrosodimethylamine	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.214	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02-0921 (A110619-07)				Matrix: Soil		Batch: 1090986		R-04
2,2'-Oxybis(1-Chloropropane)	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Hexachlorobenzene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Hexachlorobutadiene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Hexachloroethane	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Chloronaphthalene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Aniline	ND	0.427	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Chloroaniline	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Nitroaniline	ND	0.858	1.71	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
3-Nitroaniline	ND	0.858	1.71	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Nitroaniline	ND	0.858	1.71	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4-Dinitrotoluene	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,6-Dinitrotoluene	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzoic acid	ND	5.36	10.7	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzyl alcohol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Isophorone	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.858	1.71	mg/kg dry	10	09/27/21 15:45	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,3-Dinitrobenzene	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,4-Dinitrobenzene	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Pyridine	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,2-Dichlorobenzene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,3-Dichlorobenzene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,4-Dichlorobenzene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 69 %		Limits: 37-122 %	10	09/27/21 15:45	EPA 8270E	
2-Fluorobiphenyl (Surr)		76 %		44-120 %	10	09/27/21 15:45	EPA 8270E	
Phenol-d6 (Surr)		61 %		33-122 %	10	09/27/21 15:45	EPA 8270E	
p-Terphenyl-d14 (Surr)		75 %		54-127 %	10	09/27/21 15:45	EPA 8270E	
2-Fluorophenol (Surr)		58 %		35-120 %	10	09/27/21 15:45	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02-0921 (A110619-07)				Matrix: Soil		Batch: 1090986		R-04
<i>Surrogate: 2,4,6-Tribromophenol (Surr)</i>				<i>Recovery: 103 %</i>	<i>Limits: 39-132 %</i>	<i>10</i>	<i>09/27/21 15:45</i>	<i>EPA 8270E</i>
HA-03-0921 (A110619-08)				Matrix: Soil		Batch: 1090986		R-04
Acenaphthene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Acenaphthylene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Anthracene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benz(a)anthracene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benzo(a)pyrene	ND	0.0803	0.161	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0803	0.161	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0803	0.161	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Chrysene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Fluoranthene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Fluorene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1-Methylnaphthalene	ND	0.107	0.214	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Methylnaphthalene	ND	0.107	0.214	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Naphthalene	ND	0.107	0.214	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Phenanthrene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Pyrene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Carbazole	ND	0.0803	0.161	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Dibenzofuran	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Chlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4-Dichlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4-Dimethylphenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4-Dinitrophenol	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Methylphenol	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
3+4-Methylphenol(s)	0.198	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	J
2-Nitrophenol	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Nitrophenol	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-0921 (A110619-08)				Matrix: Soil		Batch: 1090986		R-04
Phenol	0.169	0.107	0.214	mg/kg dry	10	09/27/21 16:20	EPA 8270E	J
2,3,4,6-Tetrachlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Nitrobenzene	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.803	1.61	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Butyl benzyl phthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Diethylphthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Dimethylphthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Di-n-butylphthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Di-n-octyl phthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
N-Nitrosodimethylamine	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.482	0.482	mg/kg dry	10	09/27/21 16:20	EPA 8270E	R-02
2,2'-Oxybis(1-Chloropropane)	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Hexachlorobenzene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Hexachlorobutadiene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Hexachloroethane	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Chloronaphthalene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Aniline	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Chloroaniline	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Nitroaniline	ND	1.07	2.14	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
3-Nitroaniline	ND	1.07	2.14	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Nitroaniline	ND	1.07	2.14	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4-Dinitrotoluene	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,6-Dinitrotoluene	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-0921 (A110619-08)		Matrix: Soil			Batch: 1090986		R-04	
Benzoic acid	7.73	6.71	13.4	mg/kg dry	10	09/27/21 16:20	EPA 8270E	J
Benzyl alcohol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Isophorone	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
3,3'-Dichlorobenzidine	ND	1.07	2.14	mg/kg dry	10	09/27/21 16:20	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,3-Dinitrobenzene	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,4-Dinitrobenzene	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Pyridine	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,2-Dichlorobenzene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,3-Dichlorobenzene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,4-Dichlorobenzene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	85 %	Limits:	37-122 %	10	09/27/21 16:20	EPA 8270E
2-Fluorobiphenyl (Surr)			92 %		44-120 %	10	09/27/21 16:20	EPA 8270E
Phenol-d6 (Surr)			82 %		33-122 %	10	09/27/21 16:20	EPA 8270E
p-Terphenyl-d14 (Surr)			88 %		54-127 %	10	09/27/21 16:20	EPA 8270E
2-Fluorophenol (Surr)			68 %		35-120 %	10	09/27/21 16:20	EPA 8270E
2,4,6-Tribromophenol (Surr)			114 %		39-132 %	10	09/27/21 16:20	EPA 8270E
HA-1003-0921 (A110619-09)		Matrix: Soil			Batch: 1090986		R-04	
Acenaphthene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Acenaphthylene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Anthracene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benz(a)anthracene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzo(a)pyrene	ND	0.163	0.326	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzo(b)fluoranthene	ND	0.163	0.326	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzo(k)fluoranthene	ND	0.163	0.326	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Chrysene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Fluoranthene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Fluorene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A110619-09)				Matrix: Soil		Batch: 1090986		R-04
1-Methylnaphthalene	ND	0.218	0.435	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Methylnaphthalene	ND	0.218	0.435	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Naphthalene	ND	0.218	0.435	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Phenanthrene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Pyrene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Carbazole	ND	0.163	0.326	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Dibenzofuran	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Chlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Chloro-3-methylphenol	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4-Dichlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4-Dimethylphenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4-Dinitrophenol	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Methylphenol	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
3+4-Methylphenol(s)	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Nitrophenol	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Nitrophenol	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Pentachlorophenol (PCP)	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Phenol	ND	0.218	0.435	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Nitrobenzene	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	1.63	3.26	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Butyl benzyl phthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Diethylphthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Dimethylphthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Di-n-butylphthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Di-n-octyl phthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
N-Nitrosodimethylamine	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A110619-09)				Matrix: Soil		Batch: 1090986		R-04
Bis(2-Chloroethoxy) methane	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.571	0.571	mg/kg dry	20	09/27/21 14:35	EPA 8270E	R-02
2,2'-Oxybis(1-Chloropropane)	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Hexachlorobenzene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Hexachlorobutadiene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Hexachloroethane	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Chloronaphthalene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Aniline	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Chloroaniline	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Nitroaniline	ND	2.18	4.35	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
3-Nitroaniline	ND	2.18	4.35	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Nitroaniline	ND	2.18	4.35	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4-Dinitrotoluene	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,6-Dinitrotoluene	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzoic acid	ND	13.6	27.2	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzyl alcohol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Isophorone	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
3,3'-Dichlorobenzidine	ND	2.18	4.35	mg/kg dry	20	09/27/21 14:35	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,3-Dinitrobenzene	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,4-Dinitrobenzene	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Pyridine	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,2-Dichlorobenzene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,3-Dichlorobenzene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,4-Dichlorobenzene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	82 %	Limits:	37-122 %	20	09/27/21 14:35	EPA 8270E
2-Fluorobiphenyl (Surr)			95 %		44-120 %	20	09/27/21 14:35	EPA 8270E

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A110619-09)		Matrix: Soil			Batch: 1090986		R-04	
Surrogate: Phenol-d6 (Surr)		Recovery: 69 %	Limits: 33-122 %	20	09/27/21 14:35	EPA 8270E		
p-Terphenyl-d14 (Surr)		87 %	54-127 %	20	09/27/21 14:35	EPA 8270E		
2-Fluorophenol (Surr)		72 %	35-120 %	20	09/27/21 14:35	EPA 8270E		
2,4,6-Tribromophenol (Surr)		113 %	39-132 %	20	09/27/21 14:35	EPA 8270E		
DU-01-0921---After Processing (A110619-11)		Matrix: Soil			Batch: 21J0772		H-06	
Acenaphthene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Acenaphthylene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Anthracene	0.0700	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	J
Benz(a)anthracene	0.738	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Benzo(a)pyrene	1.05	0.0800	0.160	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Benzo(b)fluoranthene	1.13	0.0800	0.160	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Benzo(k)fluoranthene	0.367	0.0800	0.160	mg/kg dry	40	10/21/21 21:18	EPA 8270E	M-05
Benzo(g,h,i)perylene	0.844	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Chrysene	0.944	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Dibenz(a,h)anthracene	0.186	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Fluoranthene	0.695	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Fluorene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.693	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1-Methylnaphthalene	ND	0.107	0.213	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Methylnaphthalene	ND	0.107	0.213	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Naphthalene	ND	0.107	0.213	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Phenanthrene	0.245	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Pyrene	1.01	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Carbazole	ND	0.0800	0.160	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Dibenzofuran	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Chlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4-Dichlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4-Dimethylphenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4-Dinitrophenol	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Methylphenol	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
3+4-Methylphenol(s)	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-01-0921---After Processing (A110619-11)				Matrix: Soil		Batch: 21J0772		H-06
2-Nitrophenol	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4-Nitrophenol	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Phenol	ND	0.107	0.213	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Nitrobenzene	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.800	1.60	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Butyl benzyl phthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Diethylphthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Dimethylphthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Di-n-butylphthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Di-n-octyl phthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
N-Nitrosodimethylamine	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Hexachlorobenzene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Hexachlorobutadiene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Hexachloroethane	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Chloronaphthalene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Aniline	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4-Chloroaniline	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Nitroaniline	ND	1.07	2.13	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
3-Nitroaniline	ND	1.07	2.13	mg/kg dry	40	10/21/21 21:18	EPA 8270E	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-01-0921---After Processing (A110619-11)				Matrix: Soil		Batch: 21J0772		H-06
4-Nitroaniline	ND	1.07	2.13	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4-Dinitrotoluene	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,6-Dinitrotoluene	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Benzoic acid	ND	6.68	13.3	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Benzyl alcohol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Isophorone	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
3,3'-Dichlorobenzidine	ND	1.07	2.13	mg/kg dry	40	10/21/21 21:18	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,3-Dinitrobenzene	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,4-Dinitrobenzene	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Pyridine	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,2-Dichlorobenzene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,3-Dichlorobenzene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,4-Dichlorobenzene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	61 %	Limits:	37-122 %	40	10/21/21 21:18	EPA 8270E S-05
2-Fluorobiphenyl (Surr)			98 %		44-120 %	40	10/21/21 21:18	EPA 8270E S-05
Phenol-d6 (Surr)			73 %		33-122 %	40	10/21/21 21:18	EPA 8270E S-05
p-Terphenyl-d14 (Surr)			64 %		54-127 %	40	10/21/21 21:18	EPA 8270E S-05
2-Fluorophenol (Surr)			48 %		35-120 %	40	10/21/21 21:18	EPA 8270E S-05
2,4,6-Tribromophenol (Surr)			63 %		39-132 %	40	10/21/21 21:18	EPA 8270E S-05
DU-02-0921---After Processing (A110619-13)				Matrix: Soil		Batch: 21J0772		H-06
Acenaphthene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Acenaphthylene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Anthracene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benz(a)anthracene	0.166	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzo(a)pyrene	0.238	0.0816	0.163	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzo(b)fluoranthene	0.238	0.0816	0.163	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzo(k)fluoranthene	0.102	0.0816	0.163	mg/kg dry	40	10/21/21 21:51	EPA 8270E	J
Benzo(g,h,i)perylene	0.166	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Chrysene	0.182	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-02-0921---After Processing (A110619-13)				Matrix: Soil		Batch: 21J0772		H-06
Fluoranthene	0.215	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Fluorene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.133	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
1-Methylnaphthalene	ND	0.109	0.217	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Methylnaphthalene	ND	0.109	0.217	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Naphthalene	ND	0.109	0.217	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Phenanthrene	0.173	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Pyrene	0.321	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Carbazole	ND	0.0816	0.163	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Dibenzofuran	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Chlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4-Dichlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4-Dimethylphenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4-Dinitrophenol	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Methylphenol	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
3+4-Methylphenol(s)	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Nitrophenol	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Nitrophenol	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Phenol	ND	0.109	0.217	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Nitrobenzene	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.816	1.63	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Butyl benzyl phthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Diethylphthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Dimethylphthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Di-n-butylphthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Di-n-octyl phthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****ANALYTICAL SAMPLE RESULTS****Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-02-0921---After Processing (A110619-13)				Matrix: Soil		Batch: 21J0772		H-06
N-Nitrosodimethylamine	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Hexachlorobenzene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Hexachlorobutadiene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Hexachloroethane	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Chloronaphthalene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Aniline	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Chloroaniline	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Nitroaniline	ND	1.09	2.17	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
3-Nitroaniline	ND	1.09	2.17	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Nitroaniline	ND	1.09	2.17	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4-Dinitrotoluene	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,6-Dinitrotoluene	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzoic acid	ND	6.81	13.6	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzyl alcohol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Isophorone	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
3,3'-Dichlorobenzidine	ND	1.09	2.17	mg/kg dry	40	10/21/21 21:51	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
1,3-Dinitrobenzene	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
1,4-Dinitrobenzene	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Pyridine	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
1,2-Dichlorobenzene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
1,3-Dichlorobenzene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-02-0921---After Processing (A110619-13)				Matrix: Soil		Batch: 21J0772		H-06
1,4-Dichlorobenzene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 63 %	Limits: 37-122 %	40	10/21/21 21:51	EPA 8270E		S-05
2-Fluorobiphenyl (Surr)		91 %	44-120 %	40	10/21/21 21:51	EPA 8270E		S-05
Phenol-d6 (Surr)		71 %	33-122 %	40	10/21/21 21:51	EPA 8270E		S-05
p-Terphenyl-d14 (Surr)		69 %	54-127 %	40	10/21/21 21:51	EPA 8270E		S-05
2-Fluorophenol (Surr)		41 %	35-120 %	40	10/21/21 21:51	EPA 8270E		S-05
2,4,6-Tribromophenol (Surr)		69 %	39-132 %	40	10/21/21 21:51	EPA 8270E		S-05
SB18-9-10-0921 (A110619-14RE1)				Matrix: Soil		Batch: 1090986		R-04
Acenaphthene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Acenaphthylene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Anthracene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benz(a)anthracene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzo(a)pyrene	ND	0.466	0.933	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzo(b)fluoranthene	ND	0.466	0.933	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzo(k)fluoranthene	ND	0.466	0.933	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Chrysene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Fluoranthene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Fluorene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1-Methylnaphthalene	ND	0.623	1.24	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Methylnaphthalene	ND	0.623	1.24	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Naphthalene	ND	0.623	1.24	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Phenanthrene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Pyrene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Carbazole	ND	0.466	0.933	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Dibenzofuran	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Chlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Chloro-3-methylphenol	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4-Dichlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4-Dimethylphenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4-Dinitrophenol	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A110619-14RE1)				Matrix: Soil		Batch: 1090986		R-04
4,6-Dinitro-2-methylphenol	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Methylphenol	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
3+4-Methylphenol(s)	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Nitrophenol	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Nitrophenol	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Pentachlorophenol (PCP)	3.16	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	J
Phenol	ND	0.623	1.24	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4,5-Trichlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Nitrobenzene	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4,6-Trichlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	4.66	9.33	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Butyl benzyl phthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Diethylphthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Dimethylphthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Di-n-butylphthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Di-n-octyl phthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
N-Nitrosodimethylamine	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Hexachlorobenzene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Hexachlorobutadiene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Hexachlorocyclopentadiene	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Hexachloroethane	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Chloronaphthalene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Aniline	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A110619-14RE1)				Matrix: Soil		Batch: 1090986		R-04
4-Chloroaniline	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Nitroaniline	ND	6.23	12.4	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
3-Nitroaniline	ND	6.23	12.4	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Nitroaniline	ND	6.23	12.4	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4-Dinitrotoluene	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,6-Dinitrotoluene	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzoic acid	ND	38.9	77.7	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzyl alcohol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Isophorone	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
3,3'-Dichlorobenzidine	ND	6.23	12.4	mg/kg dry	40	09/27/21 15:10	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,3-Dinitrobenzene	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,4-Dinitrobenzene	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Pyridine	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,2-Dichlorobenzene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,3-Dichlorobenzene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,4-Dichlorobenzene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	69 %	<i>Limits:</i>	37-122 %	40	09/27/21 15:10	EPA 8270E S-05
<i>2-Fluorobiphenyl (Surr)</i>			76 %		44-120 %	40	09/27/21 15:10	EPA 8270E S-05
<i>Phenol-d6 (Surr)</i>			32 %		33-122 %	40	09/27/21 15:10	EPA 8270E S-05
<i>p-Terphenyl-d14 (Surr)</i>			81 %		54-127 %	40	09/27/21 15:10	EPA 8270E S-05
<i>2-Fluorophenol (Surr)</i>			55 %		35-120 %	40	09/27/21 15:10	EPA 8270E S-05
<i>2,4,6-Tribromophenol (Surr)</i>			238 %		39-132 %	40	09/27/21 15:10	EPA 8270E S-05

EB01-0921 (A110619-15)**Matrix: Water****Batch: 1090906**

Acenaphthene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E
Acenaphthylene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E
Anthracene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E
Benz(a)anthracene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E
Benzo(a)pyrene	ND	0.0200	0.0400	ug/L	1	09/24/21 00:19	EPA 8270E
Benzo(b)fluoranthene	ND	0.0200	0.0400	ug/L	1	09/24/21 00:19	EPA 8270E
Benzo(k)fluoranthene	ND	0.0200	0.0400	ug/L	1	09/24/21 00:19	EPA 8270E

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A110619-15)		Matrix: Water			Batch: 1090906			
Benzo(g,h,i)perylene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Chrysene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Fluoranthene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Fluorene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
1-Methylnaphthalene	ND	0.0267	0.0533	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Methylnaphthalene	ND	0.0267	0.0533	ug/L	1	09/24/21 00:19	EPA 8270E	
Naphthalene	ND	0.0267	0.0533	ug/L	1	09/24/21 00:19	EPA 8270E	
Phenanthrene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Pyrene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Carbazole	ND	0.0200	0.0400	ug/L	1	09/24/21 00:19	EPA 8270E	
Dibenzofuran	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Chlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4-Dichlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4-Dimethylphenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4-Dinitrophenol	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Methylphenol	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Nitrophenol	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Nitrophenol	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
Phenol	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
Nitrobenzene	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
Butyl benzyl phthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
Diethylphthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A110619-15)				Matrix: Water		Batch: 1090906		
Dimethylphthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
Di-n-butylphthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
Di-n-octyl phthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Hexachlorobenzene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Hexachlorobutadiene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
Hexachloroethane	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Chloronaphthalene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Aniline	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Chloroaniline	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Nitroaniline	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
3-Nitroaniline	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Nitroaniline	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
2,6-Dinitrotoluene	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
Benzoic acid	ND	1.67	3.33	ug/L	1	09/24/21 00:19	EPA 8270E	
Benzyl alcohol	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
Isophorone	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.667	1.33	ug/L	1	09/24/21 00:19	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
1,3-Dinitrobenzene	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
1,4-Dinitrobenzene	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A110619-15)		Matrix: Water				Batch: 1090906		
Pyridine	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	<i>55 %</i>	<i>Limits:</i>	<i>44-120 %</i>	<i>1</i>	<i>09/24/21 00:19</i>	<i>EPA 8270E</i>
<i>2-Fluorobiphenyl (Surr)</i>			<i>47 %</i>		<i>44-120 %</i>	<i>1</i>	<i>09/24/21 00:19</i>	<i>EPA 8270E</i>
<i>Phenol-d6 (Surr)</i>			<i>19 %</i>		<i>10-133 %</i>	<i>1</i>	<i>09/24/21 00:19</i>	<i>EPA 8270E</i>
<i>p-Terphenyl-d14 (Surr)</i>			<i>95 %</i>		<i>50-134 %</i>	<i>1</i>	<i>09/24/21 00:19</i>	<i>EPA 8270E</i>
<i>2-Fluorophenol (Surr)</i>			<i>28 %</i>		<i>19-120 %</i>	<i>1</i>	<i>09/24/21 00:19</i>	<i>EPA 8270E</i>
<i>2,4,6-Tribromophenol (Surr)</i>			<i>78 %</i>		<i>43-140 %</i>	<i>1</i>	<i>09/24/21 00:19</i>	<i>EPA 8270E</i>
EB02-0921 (A110619-16)		Matrix: Water				Batch: 1090906		
Acenaphthene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Acenaphthylene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Anthracene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Benz(a)anthracene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Benzo(a)pyrene	ND	0.0263	0.0526	ug/L	1	09/24/21 00:54	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0263	0.0526	ug/L	1	09/24/21 00:54	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0263	0.0526	ug/L	1	09/24/21 00:54	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Chrysene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Fluoranthene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Fluorene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
1-Methylnaphthalene	ND	0.0351	0.0702	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Methylnaphthalene	ND	0.0351	0.0702	ug/L	1	09/24/21 00:54	EPA 8270E	
Naphthalene	ND	0.0351	0.0702	ug/L	1	09/24/21 00:54	EPA 8270E	
Phenanthrene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Pyrene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Carbazole	ND	0.0263	0.0526	ug/L	1	09/24/21 00:54	EPA 8270E	
Dibenzofuran	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Chlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A110619-16)		Matrix: Water			Batch: 1090906			
2,4-Dichlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
2,4-Dimethylphenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
2,4-Dinitrophenol	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Methylphenol	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Nitrophenol	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
4-Nitrophenol	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
Phenol	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
Nitrobenzene	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Butyl benzyl phthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Diethylphthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Dimethylphthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Di-n-butylphthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Di-n-octyl phthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Hexachlorobenzene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Hexachlorobutadiene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
Hexachloroethane	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Chloronaphthalene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A110619-16)		Matrix: Water			Batch: 1090906			
4-Bromophenyl phenyl ether	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Aniline	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
4-Chloroaniline	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Nitroaniline	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
3-Nitroaniline	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
4-Nitroaniline	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
2,6-Dinitrotoluene	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
Benzoic acid	ND	2.19	4.39	ug/L	1	09/24/21 00:54	EPA 8270E	
Benzyl alcohol	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
Isophorone	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.877	1.75	ug/L	1	09/24/21 00:54	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
1,3-Dinitrobenzene	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
1,4-Dinitrobenzene	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
Pyridine	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	72 %	Limits:	44-120 %	1	09/24/21 00:54	EPA 8270E
2-Fluorobiphenyl (Surr)			62 %		44-120 %	1	09/24/21 00:54	EPA 8270E
Phenol-d6 (Surr)			23 %		10-133 %	1	09/24/21 00:54	EPA 8270E
p-Terphenyl-d14 (Surr)			88 %		50-134 %	1	09/24/21 00:54	EPA 8270E
2-Fluorophenol (Surr)			36 %		19-120 %	1	09/24/21 00:54	EPA 8270E
2,4,6-Tribromophenol (Surr)			77 %		43-140 %	1	09/24/21 00:54	EPA 8270E

SW04-0921 (A110619-17RE2)

Matrix: Water

Batch: 1090906

Acenaphthene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E
Acenaphthylene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E
Anthracene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E
Benz(a)anthracene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW04-0921 (A110619-17RE2)				Matrix: Water		Batch: 1090906		
Benzo(a)pyrene	ND	0.0146	0.0291	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0146	0.0291	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0146	0.0291	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Chrysene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Fluoranthene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Fluorene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
1-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	09/24/21 11:13	EPA 8270E	
Naphthalene	ND	0.0194	0.0388	ug/L	1	09/24/21 11:13	EPA 8270E	
Phenanthrene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Pyrene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Carbazole	ND	0.0146	0.0291	ug/L	1	09/24/21 11:13	EPA 8270E	
Dibenzofuran	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Chlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
2,4-Dichlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
2,4-Dimethylphenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
2,4-Dinitrophenol	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Methylphenol	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Nitrophenol	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Nitrophenol	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
Phenol	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
Nitrobenzene	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW04-0921 (A110619-17RE2)		Matrix: Water			Batch: 1090906			
Bis(2-ethylhexyl)phthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
Butyl benzyl phthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
Diethylphthalate	0.215	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	J
Dimethylphthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
Di-n-butylphthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
Di-n-octyl phthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Hexachlorobenzene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Hexachlorobutadiene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
Hexachloroethane	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Chloronaphthalene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Aniline	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Chloroaniline	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Nitroaniline	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
3-Nitroaniline	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Nitroaniline	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzoic acid	ND	1.21	2.43	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzyl alcohol	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
Isophorone	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.485	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.485	0.971	ug/L	1	09/24/21 11:13	EPA 8270E	Q-52

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW04-0921 (A110619-17RE2)		Matrix: Water			Batch: 1090906			
1,2-Dinitrobenzene	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
1,3-Dinitrobenzene	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
1,4-Dinitrobenzene	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
Pyridine	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 64 %</i>		<i>Limits: 44-120 %</i>	<i>1</i>	<i>09/24/21 11:13</i>	<i>EPA 8270E</i>	<i>Q-41</i>
<i>2-Fluorobiphenyl (Surr)</i>		<i>58 %</i>		<i>44-120 %</i>	<i>1</i>	<i>09/24/21 11:13</i>	<i>EPA 8270E</i>	
<i>Phenol-d6 (Surr)</i>		<i>21 %</i>		<i>10-133 %</i>	<i>1</i>	<i>09/24/21 11:13</i>	<i>EPA 8270E</i>	
<i>p-Terphenyl-d14 (Surr)</i>		<i>109 %</i>		<i>50-134 %</i>	<i>1</i>	<i>09/24/21 11:13</i>	<i>EPA 8270E</i>	
<i>2-Fluorophenol (Surr)</i>		<i>31 %</i>		<i>19-120 %</i>	<i>1</i>	<i>09/24/21 11:13</i>	<i>EPA 8270E</i>	
<i>2,4,6-Tribromophenol (Surr)</i>		<i>79 %</i>		<i>43-140 %</i>	<i>1</i>	<i>09/24/21 11:13</i>	<i>EPA 8270E</i>	
SW05-0921 (A110619-18RE1)		Matrix: Water			Batch: 1090906			
Acenaphthene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Acenaphthylene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Anthracene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Benz(a)anthracene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzo(a)pyrene	ND	0.0144	0.0288	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0144	0.0288	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0144	0.0288	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Chrysene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Fluoranthene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Fluorene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
1-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	09/24/21 11:48	EPA 8270E	
2-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	09/24/21 11:48	EPA 8270E	
Naphthalene	0.0192	0.0192	0.0385	ug/L	1	09/24/21 11:48	EPA 8270E	J
Phenanthrene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Pyrene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Carbazole	ND	0.0144	0.0288	ug/L	1	09/24/21 11:48	EPA 8270E	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A110619-18RE1)				Matrix: Water		Batch: 1090906		
Dibenzofuran	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
2-Chlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4-Dichlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4-Dimethylphenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4-Dinitrophenol	ND	0.240	0.481	ug/L	1	09/24/21 11:48	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.240	0.481	ug/L	1	09/24/21 11:48	EPA 8270E	
2-Methylphenol	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
2-Nitrophenol	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
4-Nitrophenol	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
Phenol	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
Nitrobenzene	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Butyl benzyl phthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Diethylphthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Dimethylphthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Di-n-butylphthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Di-n-octyl phthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Hexachlorobenzene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Hexachlorobutadiene	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A110619-18RE1)		Matrix: Water			Batch: 1090906			
Hexachloroethane	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
2-Chloronaphthalene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Aniline	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
4-Chloroaniline	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
2-Nitroaniline	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
3-Nitroaniline	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
4-Nitroaniline	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzoic acid	ND	1.20	2.40	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzyl alcohol	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
Isophorone	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.240	0.481	ug/L	1	09/24/21 11:48	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.481	0.962	ug/L	1	09/24/21 11:48	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.240	0.481	ug/L	1	09/24/21 11:48	EPA 8270E	
1,3-Dinitrobenzene	ND	0.240	0.481	ug/L	1	09/24/21 11:48	EPA 8270E	
1,4-Dinitrobenzene	ND	0.240	0.481	ug/L	1	09/24/21 11:48	EPA 8270E	
Pyridine	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 64 %		Limits: 44-120 %	1	09/24/21 11:48	EPA 8270E	Q-41
2-Fluorobiphenyl (Surr)		54 %		44-120 %	1	09/24/21 11:48	EPA 8270E	
Phenol-d6 (Surr)		19 %		10-133 %	1	09/24/21 11:48	EPA 8270E	
p-Terphenyl-d14 (Surr)		101 %		50-134 %	1	09/24/21 11:48	EPA 8270E	
2-Fluorophenol (Surr)		30 %		19-120 %	1	09/24/21 11:48	EPA 8270E	
2,4,6-Tribromophenol (Surr)		71 %		43-140 %	1	09/24/21 11:48	EPA 8270E	

SW06-0921 (A110619-19RE1)**Matrix: Water****Batch: 1090906**

Acenaphthene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E
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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW06-0921 (A110619-19RE1)				Matrix: Water		Batch: 1090906		
Acenaphthylene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Anthracene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Benz(a)anthracene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzo(a)pyrene	ND	0.0142	0.0283	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0142	0.0283	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0142	0.0283	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Chrysene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Fluoranthene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Fluorene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
1-Methylnaphthalene	ND	0.0189	0.0377	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Methylnaphthalene	ND	0.0189	0.0377	ug/L	1	09/24/21 12:24	EPA 8270E	
Naphthalene	ND	0.0189	0.0377	ug/L	1	09/24/21 12:24	EPA 8270E	
Phenanthrene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Pyrene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Carbazole	ND	0.0142	0.0283	ug/L	1	09/24/21 12:24	EPA 8270E	
Dibenzofuran	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Chlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
2,4-Dichlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
2,4-Dimethylphenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
2,4-Dinitrophenol	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Methylphenol	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Nitrophenol	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
4-Nitrophenol	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
Phenol	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	

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Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****ANALYTICAL SAMPLE RESULTS****Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW06-0921 (A110619-19RE1)				Matrix: Water		Batch: 1090906		
2,4,5-Trichlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
Nitrobenzene	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Butyl benzyl phthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Diethylphthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Dimethylphthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Di-n-butylphthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Di-n-octyl phthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Hexachlorobenzene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Hexachlorobutadiene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
Hexachloroethane	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Chloronaphthalene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Aniline	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
4-Chloroaniline	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Nitroaniline	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
3-Nitroaniline	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
4-Nitroaniline	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzoic acid	ND	1.18	2.36	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzyl alcohol	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
Isophorone	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW06-0921 (A110619-19RE1)				Matrix: Water		Batch: 1090906		
Azobenzene (1,2-DPH)	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	Q-52
Bis(2-Ethylhexyl) adipate	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.472	0.943	ug/L	1	09/24/21 12:24	EPA 8270E	
1,2-Dinitrobenzene	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
1,3-Dinitrobenzene	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
1,4-Dinitrobenzene	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
Pyridine	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 63 %		Limits: 44-120 %	1	09/24/21 12:24	EPA 8270E	Q-41
2-Fluorobiphenyl (Surr)		57 %		44-120 %	1	09/24/21 12:24	EPA 8270E	
Phenol-d6 (Surr)		17 %		10-133 %	1	09/24/21 12:24	EPA 8270E	
p-Terphenyl-d14 (Surr)		92 %		50-134 %	1	09/24/21 12:24	EPA 8270E	
2-Fluorophenol (Surr)		30 %		19-120 %	1	09/24/21 12:24	EPA 8270E	
2,4,6-Tribromophenol (Surr)		64 %		43-140 %	1	09/24/21 12:24	EPA 8270E	
SW1006-0921 (A110619-20RE1)				Matrix: Water		Batch: 1090906		
Acenaphthene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Acenaphthylene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Anthracene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Benz(a)anthracene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzo(a)pyrene	ND	0.0140	0.0280	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0140	0.0280	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0140	0.0280	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Chrysene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Fluoranthene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Fluorene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
1-Methylnaphthalene	ND	0.0187	0.0374	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Methylnaphthalene	ND	0.0187	0.0374	ug/L	1	09/24/21 12:59	EPA 8270E	
Naphthalene	ND	0.0187	0.0374	ug/L	1	09/24/21 12:59	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A110619-20RE1)				Matrix: Water		Batch: 1090906		
Phenanthrene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Pyrene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Carbazole	ND	0.0140	0.0280	ug/L	1	09/24/21 12:59	EPA 8270E	
Dibenzofuran	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Chlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4-Dichlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4-Dimethylphenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4-Dinitrophenol	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Methylphenol	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Nitrophenol	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Nitrophenol	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
Phenol	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
Nitrobenzene	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Butyl benzyl phthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Diethylphthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Dimethylphthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Di-n-butylphthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Di-n-octyl phthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A110619-20RE1)		Matrix: Water			Batch: 1090906			
Hexachlorobenzene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Hexachlorobutadiene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
Hexachloroethane	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Chloronaphthalene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Aniline	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Chloroaniline	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Nitroaniline	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
3-Nitroaniline	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Nitroaniline	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzoic acid	ND	1.17	2.34	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzyl alcohol	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
Isophorone	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.467	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.467	0.935	ug/L	1	09/24/21 12:59	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
1,3-Dinitrobenzene	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
1,4-Dinitrobenzene	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
Pyridine	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	68 %	Limits:	44-120 %	1	09/24/21 12:59	EPA 8270E Q-41
2-Fluorobiphenyl (Surr)			59 %		44-120 %	1	09/24/21 12:59	EPA 8270E
Phenol-d6 (Surr)			19 %		10-133 %	1	09/24/21 12:59	EPA 8270E
p-Terphenyl-d14 (Surr)			99 %		50-134 %	1	09/24/21 12:59	EPA 8270E
2-Fluorophenol (Surr)			31 %		19-120 %	1	09/24/21 12:59	EPA 8270E
2,4,6-Tribromophenol (Surr)			79 %		43-140 %	1	09/24/21 12:59	EPA 8270E

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
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Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****ANALYTICAL SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06) Matrix: Soil								
Batch: 1091171								
Arsenic	4.20	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Barium	70.4	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Beryllium	ND	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Cadmium	2.44	0.253	0.505	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Chromium	12.4	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Cobalt	7.08	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Copper	125	2.53	5.05	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Lead	131	0.253	0.505	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Nickel	17.9	2.53	5.05	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Selenium	ND	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Thallium	ND	0.253	0.505	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Vanadium	20.3	2.53	5.05	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Zinc	3750	5.05	10.1	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
HA-02-0921 (A110619-07) Matrix: Soil								
Batch: 1091171								
Arsenic	5.08	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Barium	63.5	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Beryllium	ND	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Cadmium	0.988	0.319	0.638	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Chromium	12.9	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Cobalt	5.71	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Copper	43.0	3.19	6.38	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Lead	57.5	0.319	0.638	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Nickel	14.9	3.19	6.38	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Selenium	ND	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Thallium	ND	0.319	0.638	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Vanadium	22.6	3.19	6.38	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Zinc	2490	6.38	12.8	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
HA-03-0921 (A110619-08) Matrix: Soil								
Batch: 1091171								
Arsenic	4.37	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-0921 (A110619-08) Matrix: Soil								
Barium	57.8	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
Beryllium	ND	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
Cadmium	0.805	0.405	0.810	mg/kg dry	10	10/01/21 04:48	EPA 6020B	J
Chromium	11.7	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
Cobalt	2.60	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B	J
Copper	28.9	4.05	8.10	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
Lead	58.1	0.405	0.810	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
Nickel	10.6	4.05	8.10	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
Selenium	ND	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
Thallium	ND	0.405	0.810	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
Vanadium	31.0	4.05	8.10	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
Zinc	400	8.10	16.2	mg/kg dry	10	10/01/21 04:48	EPA 6020B	
HA-1003-0921 (A110619-09) Matrix: Soil								
Batch: 1091171								
Arsenic	3.99	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B	J
Barium	60.2	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Beryllium	ND	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Cadmium	1.66	0.420	0.840	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Chromium	11.0	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Cobalt	2.43	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B	J
Copper	29.9	4.20	8.40	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Lead	65.5	0.420	0.840	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Nickel	9.92	4.20	8.40	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Selenium	ND	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Thallium	ND	0.420	0.840	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Vanadium	32.8	4.20	8.40	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
Zinc	701	8.40	16.8	mg/kg dry	10	10/01/21 05:02	EPA 6020B	
DU-01-0921---After Processing (A110619-11) Matrix: Soil								
Batch: 21J1074								
Arsenic	17.7	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Barium	70.3	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Beryllium	0.259	0.0999	0.200	mg/kg dry	10	10/29/21 00:17	EPA 6020B	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-01-0921---After Processing (A110619-11)								
Matrix: Soil								
Cadmium	0.264	0.0999	0.200	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Chromium	28.6	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Cobalt	10.9	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Copper	125	0.999	2.00	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Lead	6000	0.0999	0.200	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Nickel	26.4	0.999	2.00	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Selenium	ND	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Thallium	0.185	0.0999	0.200	mg/kg dry	10	10/29/21 00:17	EPA 6020B	J
Vanadium	56.1	0.999	2.00	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Zinc	132	2.00	3.99	mg/kg dry	10	10/29/21 00:17	EPA 6020B	

DU-02-0921---After Processing (A110619-13)								
Matrix: Soil								
Batch: 21J1074								
Arsenic	6.75	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Barium	104	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Beryllium	0.291	0.100	0.200	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Cadmium	1.58	0.100	0.200	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Chromium	34.4	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Cobalt	11.8	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Copper	90.8	1.00	2.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Lead	197	0.100	0.200	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Nickel	40.7	1.00	2.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Selenium	ND	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Thallium	0.100	0.100	0.200	mg/kg dry	10	10/29/21 00:22	EPA 6020B	J
Vanadium	48.1	1.00	2.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Zinc	436	2.00	4.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	

SB18-9-10-0921 (A110619-14)								
Matrix: Soil								
Batch: 1091171								
Arsenic	30.5	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Barium	150	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Beryllium	ND	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Cadmium	2.31	0.130	0.261	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Chromium	45.0	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A110619-14)				Matrix: Soil				
Cobalt	13.8	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Copper	164	1.30	2.61	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Lead	260	0.130	0.261	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Nickel	50.2	1.30	2.61	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Selenium	ND	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Thallium	ND	0.130	0.261	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Vanadium	27.2	1.30	2.61	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Zinc	977	2.61	5.21	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
EB01-0921 (A110619-15)				Matrix: Water				
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Barium	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:16	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:16	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	10/06/21 13:16	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:16	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	10/06/21 13:16	EPA 6020B	
EB02-0921 (A110619-16)				Matrix: Water				
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Barium	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:20	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:20	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A110619-16)		Matrix: Water						
Lead	ND	0.110	0.200	ug/L	1	10/06/21 13:20	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:20	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	10/06/21 13:20	EPA 6020B	
SW04-0921 (A110619-17)		Matrix: Water						
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Barium	3.71	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:25	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:25	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Copper	1.24	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	J
Lead	0.437	0.110	0.200	ug/L	1	10/06/21 13:25	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:25	EPA 6020B	
Vanadium	1.31	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	J
Zinc	33.9	2.00	4.00	ug/L	1	10/06/21 13:25	EPA 6020B	
SW05-0921 (A110619-18)		Matrix: Water						
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Barium	5.19	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:30	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:30	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Copper	2.85	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Lead	1.17	0.110	0.200	ug/L	1	10/06/21 13:30	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	

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ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A110619-18) Matrix: Water								
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:30	EPA 6020B	
Vanadium	1.31	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	J
Zinc	43.7	2.00	4.00	ug/L	1	10/06/21 13:30	EPA 6020B	
SW06-0921 (A110619-19) Matrix: Water								
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Barium	2.01	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:34	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:34	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	10/06/21 13:34	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:34	EPA 6020B	
Vanadium	1.67	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	J
Zinc	ND	2.00	4.00	ug/L	1	10/06/21 13:34	EPA 6020B	
SW1006-0921 (A110619-20) Matrix: Water								
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Barium	1.96	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	J
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:39	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:39	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	10/06/21 13:39	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:39	EPA 6020B	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**

Project Number: **0171.067**

Project Manager: **Genevieve Schutzius**

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A110619-20)		Matrix: Water						
Vanadium	1.72	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	J
Zinc	ND	2.00	4.00	ug/L	1	10/06/21 13:39	EPA 6020B	

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ANALYTICAL REPORT

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Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A110619-15) Matrix: Water								
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Barium	ND	0.500	1.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
EB01-0921 (A110619-15RE1) Matrix: Water								
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 22:55	EPA 6020B (Diss)	
EB02-0921 (A110619-16) Matrix: Water								
Batch: 1091023								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Barium	0.586	0.500	1.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	J, FILT1
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Copper	ND	1.00	2.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Lead	ND	0.100	0.200	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Vanadium	1.42	1.00	2.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	J, FILT1
Zinc	ND	2.00	4.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
EB02-0921 (A110619-16RE1) Matrix: Water								
Batch: 1091023								

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A110619-16RE1)		Matrix: Water						
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:50	EPA 6020B (Diss)	FILT1
EB02-0921 (A110619-16RE2)		Matrix: Water						
Batch: 1091023								
Beryllium	ND	0.100	0.200	ug/L	1	11/11/21 16:35	EPA 6020B (Diss)	
SW04-0921 (A110619-17)		Matrix: Water						
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Barium	3.77	0.500	1.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Copper	1.10	1.00	2.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	J
Lead	ND	0.100	0.200	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Vanadium	1.84	1.00	2.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	J
Zinc	34.4	2.00	4.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
SW04-0921 (A110619-17RE1)		Matrix: Water						
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:01	EPA 6020B (Diss)	
SW05-0921 (A110619-18)		Matrix: Water						
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Barium	5.09	0.500	1.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Copper	1.61	1.00	2.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	J
Lead	0.107	0.100	0.200	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	J

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A110619-18) Matrix: Water								
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Vanadium	1.55	1.00	2.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	J
Zinc	41.1	2.00	4.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
SW05-0921 (A110619-18RE1) Matrix: Water								
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:06	EPA 6020B (Diss)	
SW06-0921 (A110619-19) Matrix: Water								
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Barium	1.95	0.500	1.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Vanadium	1.99	1.00	2.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	J
Zinc	ND	2.00	4.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
SW06-0921 (A110619-19RE1) Matrix: Water								
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:12	EPA 6020B (Diss)	
SW1006-0921 (A110619-20) Matrix: Water								
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Barium	1.86	0.500	1.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A110619-20)		Matrix: Water						
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Vanadium	2.01	1.00	2.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
SW1006-0921 (A110619-20RE1)		Matrix: Water						
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:28	EPA 6020B (Diss)	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**
55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**
Project Number: **0171.067**
Project Manager: **Genevieve Schutzius****Report ID:**
A110619 - 11 16 21 1140**ANALYTICAL SAMPLE RESULTS****Total Hexavalent Chromium by Colorimetric Spectrophotometry**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06)				Matrix: Soil		Batch: 1090991		
Chromium (VI)	ND	4.90	9.80	mg/kg dry	10	09/29/21 16:19	EPA 7196A	Q-42, R-04
HA-02-0921 (A110619-07)				Matrix: Soil		Batch: 1090991		
Chromium (VI)	ND	6.35	12.7	mg/kg dry	10	09/29/21 16:26	EPA 7196A	R-04
HA-03-0921 (A110619-08)				Matrix: Soil		Batch: 1090991		
Chromium (VI)	ND	8.24	16.5	mg/kg dry	10	09/29/21 16:27	EPA 7196A	R-04
HA-1003-0921 (A110619-09)				Matrix: Soil		Batch: 1090991		
Chromium (VI)	ND	8.32	16.6	mg/kg dry	10	09/29/21 16:29	EPA 7196A	R-04
DU-01-0921---After Processing (A110619-11)				Matrix: Soil		Batch: 21K0136		
Chromium (VI)	ND	1.03	2.06	mg/kg dry	5	11/04/21 11:22	EPA 7196A	H-06, Q-42, Q-57, R-04
DU-02-0921---After Processing (A110619-13)				Matrix: Soil		Batch: 21K0136		
Chromium (VI)	ND	2.08	4.17	mg/kg dry	10	11/04/21 11:29	EPA 7196A	H-06, Q-57, R-04
SB18-9-10-0921 (A110619-14)				Matrix: Soil		Batch: 1090991		
Chromium (VI)	ND	2.32	4.64	mg/kg dry	10	09/29/21 16:30	EPA 7196A	R-04

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Demand Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06RE2)				Matrix: Soil				
Batch: 1090883								
Total Organic Carbon	150000	200	200	mg/kg	1	09/28/21 16:58	SM 5310 B MOD	
HA-02-0921 (A110619-07RE2)				Matrix: Soil				
Batch: 1090883								
Total Organic Carbon	110000	200	200	mg/kg	1	09/28/21 17:30	SM 5310 B MOD	
HA-03-0921 (A110619-08RE1)				Matrix: Soil				
Batch: 1090883								
Total Organic Carbon	180000	200	200	mg/kg	1	09/28/21 15:51	SM 5310 B MOD	
HA-1003-0921 (A110619-09RE1)				Matrix: Soil				
Batch: 1090883								
Total Organic Carbon	240000	200	200	mg/kg	1	09/28/21 16:02	SM 5310 B MOD	
DU-01-0921---After Processing (A110619-11)				Matrix: Soil				
Batch: 21J0826								
Total Organic Carbon	11000	200	200	mg/kg	1	10/26/21 15:12	SM 5310 B MOD	H-06
DU-02-0921---After Processing (A110619-13)				Matrix: Soil				
Batch: 21J0826								
Total Organic Carbon	41000	200	200	mg/kg	1	10/26/21 15:45	SM 5310 B MOD	H-06
SB18-9-10-0921 (A110619-14RE1)				Matrix: Soil				
Batch: 1090883								
Total Organic Carbon	64000	200	200	mg/kg	1	09/28/21 16:13	SM 5310 B MOD	

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ANALYTICAL REPORT

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GSI Water Solutions

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Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A110619-15)				Matrix: Water		Batch: 1091000		
Total Organic Carbon	ND	0.750	1.50	mg/L	1	09/28/21 02:47	SM 5310 C	
EB02-0921 (A110619-16)				Matrix: Water		Batch: 1091000		
Total Organic Carbon	ND	0.750	1.50	mg/L	1	09/28/21 03:18	SM 5310 C	
SW04-0921 (A110619-17)				Matrix: Water		Batch: 1091000		
Total Organic Carbon	2.03	0.750	1.50	mg/L	1	09/28/21 03:47	SM 5310 C	
SW05-0921 (A110619-18)				Matrix: Water		Batch: 1091000		
Total Organic Carbon	1.29	0.750	1.50	mg/L	1	09/28/21 04:17	SM 5310 C	J
SW06-0921 (A110619-19)				Matrix: Water		Batch: 1091000		
Total Organic Carbon	1.18	0.750	1.50	mg/L	1	09/28/21 04:47	SM 5310 C	J
SW1006-0921 (A110619-20)				Matrix: Water		Batch: 1091000		
Total Organic Carbon	1.18	0.750	1.50	mg/L	1	09/28/21 05:17	SM 5310 C	J

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A110619-06)				Matrix: Soil		Batch: 1090769		
% Solids	40.1	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D	
HA-02-0921 (A110619-07)				Matrix: Soil		Batch: 1090769		
% Solids	31.0	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D	
HA-03-0921 (A110619-08)				Matrix: Soil		Batch: 1090769		
% Solids	24.3	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D	
HA-1003-0921 (A110619-09)				Matrix: Soil		Batch: 1090769		
% Solids	24.1	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D	
DU-01-0921---As Received (A110619-10)				Matrix: Soil		Batch: 1090769		
% Solids	98.6	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D	
DU-01-0921---After Processing (A110619-11)				Matrix: Soil		Batch: 21J0863		H-02
% Solids	98.4	1.00	1.00	%	1	10/26/21 07:45	EPA 8000D	
DU-02-0921---As Received (A110619-12)				Matrix: Soil		Batch: 1090769		
% Solids	97.7	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D	
DU-02-0921---After Processing (A110619-13)				Matrix: Soil		Batch: 21J0863		H-02
% Solids	97.2	1.00	1.00	%	1	10/26/21 07:45	EPA 8000D	
SB18-9-10-0921 (A110619-14)				Matrix: Soil		Batch: 1090769		
% Solids	84.5	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D	

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503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Lab Filtration

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A110619-15)				Matrix: Water		Batch: 1090709		
Lab Filtration (prep only)	PREP			N/A	1	09/20/21 15:40	NA	H-13

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****Weck Laboratories, Inc.****ANALYTICAL SAMPLE RESULTS (Subcontracted)****Hexavalent Chromium by IC**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A110619-15)				Matrix: Water		Batch: W111952		
Batch: W111952								
Chromium 6+, Dissolved	0.044	---	0.020	ug/l	1	09/29/21 14:04	EPA 218.6	
Chromium 6+	0.092	---	0.020	ug/l	1	09/29/21 14:16	EPA 218.6	
EB02-0921 (A110619-16)				Matrix: Water		Batch: W111952		
Batch: W111952								
Chromium 6+	0.046	---	0.020	ug/l	1	09/29/21 14:51	EPA 218.6	
SW04-0921 (A110619-17)				Matrix: Water		Batch: W111952		
Batch: W111952								
Chromium 6+, Dissolved	0.057	---	0.020	ug/l	1	09/29/21 15:03	EPA 218.6	
Chromium 6+	0.052	---	0.020	ug/l	1	09/29/21 15:15	EPA 218.6	
SW05-0921 (A110619-18)				Matrix: Water		Batch: W111952		
Batch: W111952								
Chromium 6+, Dissolved	0.14	---	0.020	ug/l	1	09/29/21 15:26	EPA 218.6	
Chromium 6+	0.14	---	0.020	ug/l	1	09/29/21 15:38	EPA 218.6	
SW06-0921 (A110619-19)				Matrix: Water		Batch: W111952		
Batch: W111952								
Chromium 6+, Dissolved	0.31	---	0.020	ug/l	1	09/29/21 15:50	EPA 218.6	
Chromium 6+	0.31	---	0.020	ug/l	1	09/29/21 16:02	EPA 218.6	
SW1006-0921 (A110619-20)				Matrix: Water		Batch: W111952		
Batch: W111952								
Chromium 6+, Dissolved	0.31	---	0.020	ug/l	1	09/29/21 16:14	EPA 218.6	
Chromium 6+	0.31	---	0.020	ug/l	1	09/29/21 16:25	EPA 218.6	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B						Water						
Blank (1090931-BLK1)			Prepared: 09/24/21 08:00		Analyzed: 09/24/21 11:25							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B						Water						
Blank (1090931-BLK1)						Prepared: 09/24/21 08:00 Analyzed: 09/24/21 11:25						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 103 % Limits: 80-120 % Dilution: 1x												

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B						Water						
Blank (1090931-BLK1)			Prepared: 09/24/21 08:00		Analyzed: 09/24/21 11:25							
Surr: Toluene-d8 (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"						
LCS (1090931-BS1)			Prepared: 09/24/21 08:00		Analyzed: 09/24/21 08:49							
EPA 8260D												
Acetone	37.2	10.0	20.0	ug/L	1	40.0	---	93	80-120%	---	---	
Acrylonitrile	21.0	1.00	2.00	ug/L	1	20.0	---	105	80-120%	---	---	
Benzene	19.8	0.100	0.200	ug/L	1	20.0	---	99	80-120%	---	---	
Bromobenzene	18.4	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Bromochloromethane	21.7	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromodichloromethane	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Bromoform	17.9	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Bromomethane	21.9	5.00	5.00	ug/L	1	20.0	---	110	80-120%	---	---	
2-Butanone (MEK)	42.3	5.00	10.0	ug/L	1	40.0	---	106	80-120%	---	---	
n-Butylbenzene	23.6	0.500	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
sec-Butylbenzene	22.7	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
tert-Butylbenzene	20.7	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Carbon disulfide	20.9	5.00	10.0	ug/L	1	20.0	---	105	80-120%	---	---	
Carbon tetrachloride	21.4	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chlorobenzene	19.7	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	24.4	5.00	10.0	ug/L	1	20.0	---	122	80-120%	---	---	ICV-01, Q-56
Chloroform	20.9	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Chloromethane	33.9	2.50	5.00	ug/L	1	20.0	---	170	80-120%	---	---	Q-56
2-Chlorotoluene	19.5	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
4-Chlorotoluene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Dibromochloromethane	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.3	2.50	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.5	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Dibromomethane	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichlorobenzene	21.5	0.250	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
1,3-Dichlorobenzene	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,4-Dichlorobenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dichlorodifluoromethane	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1-Dichloroethane	20.3	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B						Water						
LCS (1090931-BS1)			Prepared: 09/24/21 08:00		Analyzed: 09/24/21 08:49							
1,2-Dichloroethane (EDC)	20.9	0.200	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethene	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
cis-1,2-Dichloroethene	20.2	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
trans-1,2-Dichloroethene	19.9	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichloropropane	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichloropropane	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
2,2-Dichloropropane	25.4	0.500	1.00	ug/L	1	20.0	---	127	80-120%	---	---	Q-56
1,1-Dichloropropene	20.9	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,3-Dichloropropene	18.9	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	19.3	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Ethylbenzene	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Hexachlorobutadiene	25.8	2.50	5.00	ug/L	1	20.0	---	129	80-120%	---	---	Q-56
2-Hexanone	38.8	5.00	10.0	ug/L	1	40.0	---	97	80-120%	---	---	
Isopropylbenzene	21.8	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
4-Isopropyltoluene	22.9	0.500	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Methylene chloride	21.4	5.00	10.0	ug/L	1	20.0	---	107	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	41.8	5.00	10.0	ug/L	1	40.0	---	105	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Naphthalene	19.1	2.00	4.00	ug/L	1	20.0	---	96	80-120%	---	---	
n-Propylbenzene	20.5	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Styrene	21.1	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.2	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Tetrachloroethene (PCE)	19.1	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Toluene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,3-Trichlorobenzene	27.1	1.00	2.00	ug/L	1	20.0	---	135	80-120%	---	---	Q-56
1,2,4-Trichlorobenzene	22.2	1.00	2.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,1,1-Trichloroethane	21.8	0.200	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,2-Trichloroethane	20.3	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Trichloroethene (TCE)	19.3	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Trichlorofluoromethane	23.0	1.00	2.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,2,3-Trichloropropane	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,2,4-Trimethylbenzene	23.4	0.500	1.00	ug/L	1	20.0	---	117	80-120%	---	---	
1,3,5-Trimethylbenzene	22.2	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B						Water						
LCS (1090931-BS1)			Prepared: 09/24/21 08:00		Analyzed: 09/24/21 08:49							
Vinyl chloride	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
m,p-Xylene	40.7	0.500	1.00	ug/L	1	40.0	---	102	80-120%	---	---	
o-Xylene	20.3	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		90 %		80-120 %		"						

Duplicate (1090931-DUP1)

Prepared: 09/24/21 08:41 Analyzed: 09/24/21 12:46

QC Source Sample: Non-SDG (A110880-01)

Acetone	ND	10.0	20.0	ug/L	1	---	ND	---	---	---	30%
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Chloroethane	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B						Water						
Duplicate (1090931-DUP1)			Prepared: 09/24/21 08:41		Analyzed: 09/24/21 12:46							
QC Source Sample: Non-SDG (A110880-01)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	2.00	4.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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ANALYTICAL REPORT

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B						Water						
Duplicate (1090931-DUP1)			Prepared: 09/24/21 08:41		Analyzed: 09/24/21 12:46							
QC Source Sample: Non-SDG (A110880-01)												
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		103 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		102 %		80-120 %		"						
Matrix Spike (1090931-MS1)						Prepared: 09/24/21 08:41 Analyzed: 09/24/21 15:02						
QC Source Sample: Non-SDG (A110584-17)												
EPA 8260D												
Acetone	39.4	10.0	20.0	ug/L	1	40.0	ND	99	39-160%	---	---	
Acrylonitrile	21.1	1.00	2.00	ug/L	1	20.0	ND	105	63-135%	---	---	
Benzene	21.2	0.100	0.200	ug/L	1	20.0	ND	106	79-120%	---	---	
Bromobenzene	19.7	0.250	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
Bromochloromethane	22.9	0.500	1.00	ug/L	1	20.0	ND	115	78-123%	---	---	
Bromodichloromethane	23.4	0.500	1.00	ug/L	1	20.0	ND	117	79-125%	---	---	
Bromoform	20.1	0.500	1.00	ug/L	1	20.0	ND	100	66-130%	---	---	
Bromomethane	21.1	5.00	5.00	ug/L	1	20.0	ND	105	53-141%	---	---	
2-Butanone (MEK)	42.4	5.00	10.0	ug/L	1	40.0	ND	106	56-143%	---	---	
n-Butylbenzene	24.3	0.500	1.00	ug/L	1	20.0	ND	122	75-128%	---	---	
sec-Butylbenzene	23.6	0.500	1.00	ug/L	1	20.0	ND	118	77-126%	---	---	
tert-Butylbenzene	21.6	0.500	1.00	ug/L	1	20.0	ND	108	78-124%	---	---	
Carbon disulfide	23.2	5.00	10.0	ug/L	1	20.0	ND	116	64-133%	---	---	
Carbon tetrachloride	23.3	0.500	1.00	ug/L	1	20.0	ND	117	72-136%	---	---	
Chlorobenzene	21.0	0.250	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Chloroethane	26.8	5.00	10.0	ug/L	1	20.0	ND	134	60-138%	---	---	ICV-01, Q-54c
Chloroform	22.2	0.500	1.00	ug/L	1	20.0	ND	111	79-124%	---	---	

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Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B						Water						
Matrix Spike (1090931-MS1)			Prepared: 09/24/21 08:41		Analyzed: 09/24/21 15:02							
QC Source Sample: Non-SDG (A110584-17)												
Chloromethane	39.0	2.50	5.00	ug/L	1	20.0	ND	195	50-139%	---	---	Q-54j
2-Chlorotoluene	20.2	0.500	1.00	ug/L	1	20.0	ND	101	79-122%	---	---	
4-Chlorotoluene	20.8	0.500	1.00	ug/L	1	20.0	ND	104	78-122%	---	---	
Dibromochloromethane	20.2	0.500	1.00	ug/L	1	20.0	ND	101	74-126%	---	---	Q-54l
1,2-Dibromo-3-chloropropane	19.6	2.50	5.00	ug/L	1	20.0	ND	98	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.3	0.250	0.500	ug/L	1	20.0	ND	106	77-121%	---	---	
Dibromomethane	21.6	0.500	1.00	ug/L	1	20.0	ND	108	79-123%	---	---	
1,2-Dichlorobenzene	22.5	0.250	0.500	ug/L	1	20.0	ND	112	80-120%	---	---	
1,3-Dichlorobenzene	21.5	0.250	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,4-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	ND	100	79-120%	---	---	
Dichlorodifluoromethane	20.1	0.500	1.00	ug/L	1	20.0	ND	100	32-152%	---	---	
1,1-Dichloroethane	22.0	0.200	0.400	ug/L	1	20.0	ND	110	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.0	0.200	0.400	ug/L	1	20.0	ND	110	73-128%	---	---	
1,1-Dichloroethene	20.6	0.200	0.400	ug/L	1	20.0	ND	103	71-131%	---	---	
cis-1,2-Dichloroethene	22.0	0.200	0.400	ug/L	1	20.0	ND	110	78-123%	---	---	
trans-1,2-Dichloroethene	21.3	0.200	0.400	ug/L	1	20.0	ND	107	75-124%	---	---	
1,2-Dichloropropane	21.4	0.250	0.500	ug/L	1	20.0	ND	107	78-122%	---	---	
1,3-Dichloropropane	21.4	0.500	1.00	ug/L	1	20.0	ND	107	80-120%	---	---	
2,2-Dichloropropane	24.0	0.500	1.00	ug/L	1	20.0	ND	120	60-139%	---	---	
1,1-Dichloropropene	22.4	0.500	1.00	ug/L	1	20.0	ND	112	79-125%	---	---	
cis-1,3-Dichloropropene	18.0	0.500	1.00	ug/L	1	20.0	ND	90	75-124%	---	---	
trans-1,3-Dichloropropene	19.6	0.500	1.00	ug/L	1	20.0	ND	98	73-127%	---	---	
Ethylbenzene	21.6	0.250	0.500	ug/L	1	20.0	ND	108	79-121%	---	---	
Hexachlorobutadiene	25.7	2.50	5.00	ug/L	1	20.0	ND	128	66-134%	---	---	
2-Hexanone	39.4	5.00	10.0	ug/L	1	40.0	ND	99	57-139%	---	---	
Isopropylbenzene	23.0	0.500	1.00	ug/L	1	20.0	ND	115	72-131%	---	---	
4-Isopropyltoluene	23.2	0.500	1.00	ug/L	1	20.0	ND	116	77-127%	---	---	
Methylene chloride	21.9	5.00	10.0	ug/L	1	20.0	ND	109	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	42.9	5.00	10.0	ug/L	1	40.0	ND	107	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	20.5	0.500	1.00	ug/L	1	20.0	ND	102	71-124%	---	---	
Naphthalene	19.2	2.00	4.00	ug/L	1	20.0	ND	96	61-128%	---	---	
n-Propylbenzene	21.2	0.250	0.500	ug/L	1	20.0	ND	106	76-126%	---	---	
Styrene	15.1	0.500	1.00	ug/L	1	20.0	ND	76	78-123%	---	---	Q-01

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B						Water						
Matrix Spike (1090931-MS1)			Prepared: 09/24/21 08:41		Analyzed: 09/24/21 15:02							
QC Source Sample: Non-SDG (A110584-17)												
1,1,1,2-Tetrachloroethane	21.3	0.200	0.400	ug/L	1	20.0	ND	106	78-124%	---	---	Q-54b
1,1,2,2-Tetrachloroethane	20.7	0.250	0.500	ug/L	1	20.0	ND	103	71-121%	---	---	
Tetrachloroethene (PCE)	20.3	0.200	0.400	ug/L	1	20.0	ND	101	74-129%	---	---	
Toluene	20.3	0.500	1.00	ug/L	1	20.0	ND	102	80-121%	---	---	
1,2,3-Trichlorobenzene	28.1	1.00	2.00	ug/L	1	20.0	ND	140	69-129%	---	---	
1,2,4-Trichlorobenzene	23.0	1.00	2.00	ug/L	1	20.0	ND	115	69-130%	---	---	
1,1,1-Trichloroethane	23.7	0.200	0.400	ug/L	1	20.0	ND	118	74-131%	---	---	
1,1,2-Trichloroethane	21.0	0.250	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Trichloroethene (TCE)	20.7	0.200	0.400	ug/L	1	20.0	ND	103	79-123%	---	---	
Trichlorofluoromethane	24.9	1.00	2.00	ug/L	1	20.0	ND	125	65-141%	---	---	
1,2,3-Trichloropropane	20.8	0.500	1.00	ug/L	1	20.0	ND	104	73-122%	---	---	
1,2,4-Trimethylbenzene	21.2	0.500	1.00	ug/L	1	20.0	ND	106	76-124%	---	---	
1,3,5-Trimethylbenzene	21.9	0.500	1.00	ug/L	1	20.0	ND	110	75-124%	---	---	
Vinyl chloride	20.9	0.200	0.400	ug/L	1	20.0	ND	105	58-137%	---	---	
m,p-Xylene	42.6	0.500	1.00	ug/L	1	40.0	ND	107	80-121%	---	---	
o-Xylene	21.7	0.250	0.500	ug/L	1	20.0	ND	108	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		90 %		80-120 %		"						

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Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
Blank (1091097-BLK1)			Prepared: 09/29/21 09:00 Analyzed: 09/29/21 11:14									
5035A/8260D												
Acetone	ND	0.333	0.667	mg/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Benzene	ND	0.00333	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	0.333	0.333	mg/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.0667	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
Blank (1091097-BLK1)						Prepared: 09/29/21 09:00 Analyzed: 09/29/21 11:14						
1,2-Dichloropropane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Styrene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 108 % Limits: 80-120 % Dilution: 1x												

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
Blank (1091097-BLK1)			Prepared: 09/29/21 09:00		Analyzed: 09/29/21 11:14							
Surr: Toluene-d8 (Surr)		Recovery: 98 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		97 %		79-120 %		"						
LCS (1091097-BS1)			Prepared: 09/29/21 09:00		Analyzed: 09/29/21 10:20							
5035A/8260D												
Acetone	1.91	0.500	1.00	mg/kg wet	50	2.00	---	96	80-120%	---	---	
Acrylonitrile	1.05	0.0500	0.100	mg/kg wet	50	1.00	---	105	80-120%	---	---	
Benzene	1.18	0.00500	0.0100	mg/kg wet	50	1.00	---	118	80-120%	---	---	
Bromobenzene	1.04	0.0125	0.0250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Bromochloromethane	1.13	0.0250	0.0500	mg/kg wet	50	1.00	---	113	80-120%	---	---	
Bromodichloromethane	1.24	0.0250	0.0500	mg/kg wet	50	1.00	---	124	80-120%	---	---	Q-56
Bromoform	0.947	0.0500	0.100	mg/kg wet	50	1.00	---	95	80-120%	---	---	
Bromomethane	1.60	0.500	0.500	mg/kg wet	50	1.00	---	160	80-120%	---	---	Q-56
2-Butanone (MEK)	1.98	0.250	0.500	mg/kg wet	50	2.00	---	99	80-120%	---	---	
n-Butylbenzene	0.981	0.0250	0.0500	mg/kg wet	50	1.00	---	98	80-120%	---	---	
sec-Butylbenzene	1.04	0.0250	0.0500	mg/kg wet	50	1.00	---	104	80-120%	---	---	
tert-Butylbenzene	0.954	0.0250	0.0500	mg/kg wet	50	1.00	---	95	80-120%	---	---	
Carbon disulfide	1.40	0.250	0.500	mg/kg wet	50	1.00	---	140	80-120%	---	---	Q-56
Carbon tetrachloride	1.30	0.0250	0.0500	mg/kg wet	50	1.00	---	130	80-120%	---	---	Q-56
Chlorobenzene	1.07	0.0125	0.0250	mg/kg wet	50	1.00	---	107	80-120%	---	---	
Chloroethane	1.41	0.250	0.500	mg/kg wet	50	1.00	---	141	80-120%	---	---	Q-56
Chloroform	1.24	0.0250	0.0500	mg/kg wet	50	1.00	---	124	80-120%	---	---	Q-56
Chloromethane	0.891	0.125	0.250	mg/kg wet	50	1.00	---	89	80-120%	---	---	
2-Chlorotoluene	1.05	0.0250	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
4-Chlorotoluene	1.01	0.0250	0.0500	mg/kg wet	50	1.00	---	101	80-120%	---	---	
Dibromochloromethane	0.970	0.0500	0.100	mg/kg wet	50	1.00	---	97	80-120%	---	---	
1,2-Dibromo-3-chloropropane	0.836	0.125	0.250	mg/kg wet	50	1.00	---	84	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.09	0.0250	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	
Dibromomethane	1.14	0.0250	0.0500	mg/kg wet	50	1.00	---	114	80-120%	---	---	
1,2-Dichlorobenzene	1.00	0.0125	0.0250	mg/kg wet	50	1.00	---	100	80-120%	---	---	
1,3-Dichlorobenzene	1.04	0.0125	0.0250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
1,4-Dichlorobenzene	1.03	0.0125	0.0250	mg/kg wet	50	1.00	---	103	80-120%	---	---	
Dichlorodifluoromethane	0.760	0.100	0.100	mg/kg wet	50	1.00	---	76	80-120%	---	---	Q-55
1,1-Dichloroethane	1.14	0.0125	0.0250	mg/kg wet	50	1.00	---	114	80-120%	---	---	

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
LCS (1091097-BS1)						Prepared: 09/29/21 09:00 Analyzed: 09/29/21 10:20						
1,2-Dichloroethane (EDC)	1.14	0.0125	0.0250	mg/kg wet	50	1.00	---	114	80-120%	---	---	
1,1-Dichloroethene	1.47	0.0125	0.0250	mg/kg wet	50	1.00	---	147	80-120%	---	---	Q-56
cis-1,2-Dichloroethene	1.20	0.0125	0.0250	mg/kg wet	50	1.00	---	120	80-120%	---	---	
trans-1,2-Dichloroethene	1.22	0.0125	0.0250	mg/kg wet	50	1.00	---	122	80-120%	---	---	Q-56
1,2-Dichloropropane	1.20	0.0125	0.0250	mg/kg wet	50	1.00	---	120	80-120%	---	---	
1,3-Dichloropropane	1.05	0.0250	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
2,2-Dichloropropane	1.35	0.0250	0.0500	mg/kg wet	50	1.00	---	135	80-120%	---	---	Q-56
1,1-Dichloropropene	1.25	0.0250	0.0500	mg/kg wet	50	1.00	---	125	80-120%	---	---	Q-56
cis-1,3-Dichloropropene	1.19	0.0250	0.0500	mg/kg wet	50	1.00	---	119	80-120%	---	---	
trans-1,3-Dichloropropene	1.04	0.0250	0.0500	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Ethylbenzene	1.01	0.0125	0.0250	mg/kg wet	50	1.00	---	101	80-120%	---	---	
Hexachlorobutadiene	0.916	0.0500	0.100	mg/kg wet	50	1.00	---	92	80-120%	---	---	
2-Hexanone	1.61	0.250	0.500	mg/kg wet	50	2.00	---	80	80-120%	---	---	
Isopropylbenzene	1.02	0.0250	0.0500	mg/kg wet	50	1.00	---	102	80-120%	---	---	
4-Isopropyltoluene	1.02	0.0250	0.0500	mg/kg wet	50	1.00	---	102	80-120%	---	---	
Methylene chloride	1.18	0.250	0.500	mg/kg wet	50	1.00	---	118	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	1.64	0.250	0.500	mg/kg wet	50	2.00	---	82	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.16	0.0250	0.0500	mg/kg wet	50	1.00	---	116	80-120%	---	---	
Naphthalene	0.882	0.0500	0.100	mg/kg wet	50	1.00	---	88	80-120%	---	---	
n-Propylbenzene	1.04	0.0125	0.0250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Styrene	0.990	0.0250	0.0500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1.17	0.0125	0.0250	mg/kg wet	50	1.00	---	117	80-120%	---	---	
1,1,2,2-Tetrachloroethane	0.937	0.0250	0.0500	mg/kg wet	50	1.00	---	94	80-120%	---	---	
Tetrachloroethene (PCE)	1.14	0.0125	0.0250	mg/kg wet	50	1.00	---	114	80-120%	---	---	
Toluene	1.04	0.0250	0.0500	mg/kg wet	50	1.00	---	104	80-120%	---	---	
1,2,3-Trichlorobenzene	0.993	0.125	0.250	mg/kg wet	50	1.00	---	99	80-120%	---	---	
1,2,4-Trichlorobenzene	0.954	0.125	0.250	mg/kg wet	50	1.00	---	95	80-120%	---	---	
1,1,1-Trichloroethane	1.31	0.0125	0.0250	mg/kg wet	50	1.00	---	131	80-120%	---	---	Q-56
1,1,2-Trichloroethane	1.07	0.0125	0.0250	mg/kg wet	50	1.00	---	107	80-120%	---	---	
Trichloroethene (TCE)	1.27	0.0125	0.0250	mg/kg wet	50	1.00	---	127	80-120%	---	---	Q-56
Trichlorofluoromethane	1.35	0.0500	0.100	mg/kg wet	50	1.00	---	135	80-120%	---	---	Q-56
1,2,3-Trichloropropane	0.992	0.0250	0.0500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
1,2,4-Trimethylbenzene	1.05	0.0250	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
1,3,5-Trimethylbenzene	1.08	0.0250	0.0500	mg/kg wet	50	1.00	---	108	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
LCS (1091097-BS1)			Prepared: 09/29/21 09:00		Analyzed: 09/29/21 10:20							
Vinyl chloride	1.02	0.0125	0.0250	mg/kg wet	50	1.00	---	102	80-120%	---	---	
m,p-Xylene	1.98	0.0250	0.0500	mg/kg wet	50	2.00	---	99	80-120%	---	---	
o-Xylene	0.970	0.0125	0.0250	mg/kg wet	50	1.00	---	97	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 108 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		79-120 %		"						

Duplicate (1091097-DUP1)

Prepared: 09/23/21 10:15 Analyzed: 09/29/21 17:04

QC Source Sample: Non-SDG (A110984-01)

Acetone	ND	0.939	1.88	mg/kg dry	50	---	ND	---	---	---	30%
Acrylonitrile	ND	0.0939	0.188	mg/kg dry	50	---	ND	---	---	---	30%
Benzene	ND	0.00939	0.0188	mg/kg dry	50	---	ND	---	---	---	30%
Bromobenzene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%
Bromochloromethane	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
Bromoform	ND	0.0939	0.188	mg/kg dry	50	---	ND	---	---	---	30%
Bromomethane	ND	0.939	0.939	mg/kg dry	50	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	0.469	0.939	mg/kg dry	50	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
sec-Butylbenzene	0.0985	0.0469	0.0939	mg/kg dry	50	---	0.111	---	---	12	30%
tert-Butylbenzene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
Carbon disulfide	ND	0.469	0.939	mg/kg dry	50	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
Chlorobenzene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%
Chloroethane	ND	0.469	0.939	mg/kg dry	50	---	ND	---	---	---	30%
Chloroform	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
Chloromethane	ND	0.235	0.469	mg/kg dry	50	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.0939	0.188	mg/kg dry	50	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	0.235	0.469	mg/kg dry	50	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
Dibromomethane	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
Duplicate (1091097-DUP1)			Prepared: 09/23/21 10:15		Analyzed: 09/29/21 17:04							
QC Source Sample: Non-SDG (A110984-01)												
1,3-Dichlorobenzene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	R-02
1,4-Dichlorobenzene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.188	0.188	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	0.0939	0.188	mg/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	0.469	0.939	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	0.469	0.939	mg/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	1.50	1.50	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	0.0939	0.188	mg/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.0939	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	0.235	0.469	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	0.235	0.469	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
Duplicate (1091097-DUP1)			Prepared: 09/23/21 10:15 Analyzed: 09/29/21 17:04									
QC Source Sample: Non-SDG (A110984-01)												
Trichloroethene (TCE)	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	0.0939	0.188	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.0469	0.0939	mg/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	0.0235	0.0469	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 109 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		94 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		79-120 %		"						
Duplicate (1091097-DUP2)			Prepared: 09/23/21 13:20 Analyzed: 09/29/21 17:58									
QC Source Sample: Non-SDG (A110984-02)												
Acetone	ND	0.959	1.92	mg/kg dry	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	0.192	0.192	mg/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	0.00959	0.0192	mg/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	0.0959	0.192	mg/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	0.959	0.959	mg/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	0.480	0.959	mg/kg dry	50	---	ND	---	---	---	30%	
n-Butylbenzene	0.934	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	Q-04
sec-Butylbenzene	0.485	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	Q-04
tert-Butylbenzene	ND	0.0959	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	0.480	0.959	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	0.480	0.959	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	0.240	0.480	mg/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
Duplicate (1091097-DUP2)			Prepared: 09/23/21 13:20		Analyzed: 09/29/21 17:58							
QC Source Sample: Non-SDG (A110984-02)												
4-Chlorotoluene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.0959	0.192	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	0.240	0.480	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.192	0.192	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	0.0959	0.192	mg/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	0.959	0.959	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	0.0508	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	Q-05, J
4-Isopropyltoluene	0.164	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	Q-05
Methylene chloride	ND	0.480	0.959	mg/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	6.23	6.23	mg/kg dry	50	---	ND	---	---	---	30%	R-02
Methyl tert-butyl ether (MTBE)	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	0.0959	0.192	mg/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	0.229	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	Q-05
Styrene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.192	0.192	mg/kg dry	50	---	ND	---	---	---	30%	R-02

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
Duplicate (1091097-DUP2)			Prepared: 09/23/21 13:20 Analyzed: 09/29/21 17:58									
QC Source Sample: Non-SDG (A110984-02)												
Tetrachloroethene (PCE)	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	0.240	0.480	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	0.240	0.480	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	0.0959	0.192	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.0480	0.0959	mg/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	0.0240	0.0480	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 113 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		94 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		100 %		79-120 %		"						

Matrix Spike (1091097-MS1)

Prepared: 09/23/21 15:30 Analyzed: 09/29/21 18:51

QC Source Sample: Non-SDG (A110984-03)**5035A/8260D**

Acetone	2.67	0.695	1.39	mg/kg dry	50	2.78	ND	96	36-164%	---	---	
Acrylonitrile	1.55	0.0695	0.139	mg/kg dry	50	1.39	ND	106	65-134%	---	---	
Benzene	1.58	0.00695	0.0139	mg/kg dry	50	1.39	ND	114	77-121%	---	---	
Bromobenzene	1.41	0.0174	0.0347	mg/kg dry	50	1.39	ND	102	78-121%	---	---	
Bromochloromethane	1.47	0.0347	0.0695	mg/kg dry	50	1.39	ND	105	78-125%	---	---	
Bromodichloromethane	1.71	0.0347	0.0695	mg/kg dry	50	1.39	ND	123	75-127%	---	---	Q-54g
Bromoform	1.37	0.0695	0.139	mg/kg dry	50	1.39	ND	98	67-132%	---	---	
Bromomethane	2.31	0.695	0.695	mg/kg dry	50	1.39	ND	166	53-143%	---	---	Q-54h
2-Butanone (MEK)	2.75	0.347	0.695	mg/kg dry	50	2.78	ND	99	51-148%	---	---	
n-Butylbenzene	1.53	0.0347	0.0695	mg/kg dry	50	1.39	0.147	100	70-128%	---	---	
sec-Butylbenzene	1.53	0.0347	0.0695	mg/kg dry	50	1.39	0.0945	103	73-126%	---	---	
tert-Butylbenzene	1.34	0.0347	0.0695	mg/kg dry	50	1.39	ND	96	73-125%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
Matrix Spike (1091097-MS1)			Prepared: 09/23/21 15:30		Analyzed: 09/29/21 18:51							
QC Source Sample: Non-SDG (A110984-03)												
Carbon disulfide	1.84	0.347	0.695	mg/kg dry	50	1.39	ND	132	63-132%	---	---	Q-54d
Carbon tetrachloride	1.71	0.0347	0.0695	mg/kg dry	50	1.39	ND	123	70-135%	---	---	Q-54
Chlorobenzene	1.39	0.0174	0.0347	mg/kg dry	50	1.39	ND	100	79-120%	---	---	
Chloroethane	2.12	0.347	0.695	mg/kg dry	50	1.39	ND	153	59-139%	---	---	Q-54e
Chloroform	1.66	0.0347	0.0695	mg/kg dry	50	1.39	ND	119	78-123%	---	---	Q-54g
Chloromethane	1.12	0.174	0.347	mg/kg dry	50	1.39	ND	80	50-136%	---	---	
2-Chlorotoluene	1.43	0.0347	0.0695	mg/kg dry	50	1.39	ND	103	75-122%	---	---	
4-Chlorotoluene	1.37	0.0347	0.0695	mg/kg dry	50	1.39	ND	99	72-124%	---	---	
Dibromochloromethane	1.35	0.0695	0.139	mg/kg dry	50	1.39	ND	97	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1.41	0.174	0.347	mg/kg dry	50	1.39	ND	102	61-132%	---	---	
1,2-Dibromoethane (EDB)	1.52	0.0347	0.0695	mg/kg dry	50	1.39	ND	109	78-122%	---	---	
Dibromomethane	1.53	0.0347	0.0695	mg/kg dry	50	1.39	ND	110	78-125%	---	---	
1,2-Dichlorobenzene	1.34	0.0174	0.0347	mg/kg dry	50	1.39	ND	97	78-121%	---	---	
1,3-Dichlorobenzene	1.41	0.0174	0.0347	mg/kg dry	50	1.39	ND	102	77-121%	---	---	
1,4-Dichlorobenzene	1.35	0.0174	0.0347	mg/kg dry	50	1.39	ND	97	75-120%	---	---	
Dichlorodifluoromethane	0.918	0.139	0.139	mg/kg dry	50	1.39	ND	66	29-149%	---	---	Q-54m
1,1-Dichloroethane	1.65	0.0174	0.0347	mg/kg dry	50	1.39	ND	119	76-125%	---	---	
1,2-Dichloroethane (EDC)	1.51	0.0174	0.0347	mg/kg dry	50	1.39	ND	108	73-128%	---	---	
1,1-Dichloroethene	1.96	0.0174	0.0347	mg/kg dry	50	1.39	ND	141	70-131%	---	---	Q-54f
cis-1,2-Dichloroethene	1.54	0.0174	0.0347	mg/kg dry	50	1.39	ND	111	77-123%	---	---	
trans-1,2-Dichloroethene	1.58	0.0174	0.0347	mg/kg dry	50	1.39	ND	114	74-125%	---	---	Q-54c
1,2-Dichloropropane	1.68	0.0174	0.0347	mg/kg dry	50	1.39	ND	121	76-123%	---	---	
1,3-Dichloropropane	1.43	0.0347	0.0695	mg/kg dry	50	1.39	ND	103	77-121%	---	---	
2,2-Dichloropropane	1.73	0.0347	0.0695	mg/kg dry	50	1.39	ND	124	67-133%	---	---	Q-54b
1,1-Dichloropropene	1.60	0.0347	0.0695	mg/kg dry	50	1.39	ND	115	76-125%	---	---	Q-54i
cis-1,3-Dichloropropene	1.56	0.0347	0.0695	mg/kg dry	50	1.39	ND	112	74-126%	---	---	
trans-1,3-Dichloropropene	1.39	0.0347	0.0695	mg/kg dry	50	1.39	ND	100	71-130%	---	---	
Ethylbenzene	1.34	0.0174	0.0347	mg/kg dry	50	1.39	ND	96	76-122%	---	---	
Hexachlorobutadiene	1.43	0.0695	0.139	mg/kg dry	50	1.39	ND	103	61-135%	---	---	
2-Hexanone	3.03	0.347	0.695	mg/kg dry	50	2.78	ND	92	53-145%	---	---	
Isopropylbenzene	1.42	0.0347	0.0695	mg/kg dry	50	1.39	ND	102	68-134%	---	---	
4-Isopropyltoluene	1.43	0.0347	0.0695	mg/kg dry	50	1.39	ND	103	73-127%	---	---	
Methylene chloride	1.55	0.347	0.695	mg/kg dry	50	1.39	ND	111	70-128%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A						Soil						
Matrix Spike (1091097-MS1)			Prepared: 09/23/21 15:30 Analyzed: 09/29/21 18:51									
QC Source Sample: Non-SDG (A110984-03)												
4-Methyl-2-pentanone (MiBK)	3.46	0.347	0.695	mg/kg dry	50	2.78	ND	80	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	1.56	0.0347	0.0695	mg/kg dry	50	1.39	ND	112	73-125%	---	---	
Naphthalene	1.43	0.0695	0.139	mg/kg dry	50	1.39	ND	103	62-129%	---	---	
n-Propylbenzene	1.45	0.0174	0.0347	mg/kg dry	50	1.39	0.0556	101	73-125%	---	---	
Styrene	1.47	0.0347	0.0695	mg/kg dry	50	1.39	ND	106	76-124%	---	---	
1,1,1,2-Tetrachloroethane	1.56	0.0174	0.0347	mg/kg dry	50	1.39	ND	112	78-125%	---	---	
1,1,2,2-Tetrachloroethane	1.33	0.0347	0.0695	mg/kg dry	50	1.39	ND	96	70-124%	---	---	
Tetrachloroethene (PCE)	1.45	0.0174	0.0347	mg/kg dry	50	1.39	ND	104	73-128%	---	---	
Toluene	1.34	0.0347	0.0695	mg/kg dry	50	1.39	ND	96	77-121%	---	---	
1,2,3-Trichlorobenzene	1.39	0.174	0.347	mg/kg dry	50	1.39	ND	100	66-130%	---	---	
1,2,4-Trichlorobenzene	1.39	0.174	0.347	mg/kg dry	50	1.39	ND	100	67-129%	---	---	
1,1,1-Trichloroethane	1.71	0.0174	0.0347	mg/kg dry	50	1.39	ND	123	73-130%	---	---	Q-54a
1,1,2-Trichloroethane	1.54	0.0174	0.0347	mg/kg dry	50	1.39	ND	111	78-121%	---	---	
Trichloroethene (TCE)	1.70	0.0174	0.0347	mg/kg dry	50	1.39	ND	122	77-123%	---	---	Q-54k
Trichlorofluoromethane	1.71	0.0695	0.139	mg/kg dry	50	1.39	ND	123	62-140%	---	---	Q-54b
1,2,3-Trichloropropane	1.38	0.0347	0.0695	mg/kg dry	50	1.39	ND	99	73-125%	---	---	
1,2,4-Trimethylbenzene	1.41	0.0347	0.0695	mg/kg dry	50	1.39	ND	101	75-123%	---	---	
1,3,5-Trimethylbenzene	1.44	0.0347	0.0695	mg/kg dry	50	1.39	ND	104	73-124%	---	---	
Vinyl chloride	1.30	0.0174	0.0347	mg/kg dry	50	1.39	ND	94	56-135%	---	---	
m,p-Xylene	2.61	0.0347	0.0695	mg/kg dry	50	2.78	ND	94	77-124%	---	---	
o-Xylene	1.36	0.0174	0.0347	mg/kg dry	50	1.39	ND	98	77-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 110 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		95 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		103 %		79-120 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090703 - EPA 3546						Soil						
Blank (1090703-BLK1)			Prepared: 09/20/21 07:42		Analyzed: 09/20/21 17:18		C-07					
EPA 8082A												
Aroclor 1016	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 100 %		Limits: 60-125 %		Dilution: 1x						
LCS (1090703-BS1)			Prepared: 09/20/21 07:42		Analyzed: 09/20/21 17:37		C-07					
EPA 8082A												
Aroclor 1016	0.199	0.00500	0.0100	mg/kg wet	1	0.250	---	80	47-134%	---	---	
Aroclor 1260	0.231	0.00500	0.0100	mg/kg wet	1	0.250	---	92	53-140%	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 97 %		Limits: 60-125 %		Dilution: 1x						
Duplicate (1090703-DUP1)			Prepared: 09/20/21 07:42		Analyzed: 09/20/21 18:32		C-07					
QC Source Sample: HA-01-0921 (A110619-06)												
EPA 8082A												
Aroclor 1016	ND	0.0122	0.0244	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	0.0122	0.0244	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1232	ND	0.0122	0.0244	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1242	ND	0.0122	0.0244	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1248	ND	0.0122	0.0244	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1254	0.0489	0.0122	0.0244	mg/kg dry	1	---	0.0704	---	---	36	30%	P-12, Q-05
Aroclor 1260	0.0157	0.0122	0.0244	mg/kg dry	1	---	ND	---	---		30%	Q-05, J
Surr: Decachlorobiphenyl (Surr)		Recovery: 68 %		Limits: 60-125 %		Dilution: 1x						
Matrix Spike (1090703-MS1)			Prepared: 09/20/21 07:42		Analyzed: 09/20/21 19:45		C-07					
QC Source Sample: Non-SDG (A110626-03)												
EPA 8082A												
Aroclor 1016	0.257	0.00860	0.0172	mg/kg dry	1	0.430	ND	60	47-134%	---	---	
Aroclor 1260	0.281	0.00860	0.0172	mg/kg dry	1	0.430	ND	65	53-140%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090703 - EPA 3546							Soil					
Matrix Spike (1090703-MS1)			Prepared: 09/20/21 07:42 Analyzed: 09/20/21 19:45									C-07
<u>QC Source Sample: Non-SDG (A110626-03)</u>												
Surr: Decachlorobiphenyl (Surr)				Recovery: 67 %		Limits: 60-125 %		Dilution: 1x				

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Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091107 - EPA 3510C (Neutral pH)						Water						
Blank (1091107-BLK1)			Prepared: 09/29/21 10:35		Analyzed: 09/29/21 17:23		C-07					
EPA 8082A												
Aroclor 1016	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 88 %		Limits: 40-135 %		Dilution: 1x						
LCS (1091107-BS1)			Prepared: 09/29/21 10:35		Analyzed: 09/29/21 17:41		C-07					
EPA 8082A												
Aroclor 1016	1.96	0.0500	0.100	ug/L	1	2.50	---	79	46-129%	---	---	
Aroclor 1260	2.32	0.0500	0.100	ug/L	1	2.50	---	93	45-134%	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 91 %		Limits: 40-135 %		Dilution: 1x						
LCS Dup (1091107-BSD1)			Prepared: 09/29/21 10:35		Analyzed: 09/29/21 17:59		C-07, Q-19					
EPA 8082A												
Aroclor 1016	1.80	0.0500	0.100	ug/L	1	2.50	---	72	46-129%	9	30%	
Aroclor 1260	2.15	0.0500	0.100	ug/L	1	2.50	---	86	45-134%	7	30%	
Surr: Decachlorobiphenyl (Surr)		Recovery: 94 %		Limits: 40-135 %		Dilution: 1x						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J1037 - EPA 3546						Soil						
Blank (21J1037-BLK1)			Prepared: 10/28/21 07:26 Analyzed: 10/28/21 16:20						C-07			
EPA 8082A												
Aroclor 1016	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.00455	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 91 %		Limits: 60-125 %		Dilution: 1x						
LCS (21J1037-BS1)			Prepared: 10/28/21 07:26 Analyzed: 10/28/21 16:37						C-07			
EPA 8082A												
Aroclor 1016	0.206	0.00500	0.0100	mg/kg wet	1	0.250	---	83	47-134%	---	---	
Aroclor 1260	0.190	0.00500	0.0100	mg/kg wet	1	0.250	---	76	53-140%	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 97 %		Limits: 60-125 %		Dilution: 1x						
Duplicate (21J1037-DUP1)			Prepared: 10/28/21 07:26 Analyzed: 10/28/21 17:30						C-07			
QC Source Sample: DU-01-0921---After Processing (A110619-11)												
EPA 8082A												
Aroclor 1016	ND	0.00498	0.00997	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	0.00498	0.00997	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1232	ND	0.00498	0.00997	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1242	ND	0.00498	0.00997	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1248	ND	0.00498	0.00997	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1254	ND	0.00498	0.00997	mg/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1260	ND	0.00498	0.00997	mg/kg dry	1	---	ND	---	---	---	30%	
Surr: Decachlorobiphenyl (Surr)		Recovery: 78 %		Limits: 60-125 %		Dilution: 1x						
Matrix Spike (21J1037-MS2)			Prepared: 10/28/21 07:26 Analyzed: 10/29/21 10:40						C-07			
QC Source Sample: DU-02-0921---After Processing (A110619-13)												
EPA 8082A												
Aroclor 1016	0.204	0.00512	0.0102	mg/kg dry	1	0.256	ND	80	47-134%	---	---	
Aroclor 1260	0.205	0.00512	0.0102	mg/kg dry	1	0.256	0.0319	68	53-140%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J1037 - EPA 3546							Soil					
Matrix Spike (21J1037-MS2)			Prepared: 10/28/21 07:26		Analyzed: 10/29/21 10:40		C-07					
QC Source Sample: DU-02-0921---After Processing (A110619-13)												
Surr: Decachlorobiphenyl (Surr)				Recovery: 89 %		Limits: 60-125 %		Dilution: 1x				

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Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1090906-BLK1)			Prepared: 09/23/21 12:07		Analyzed: 09/23/21 18:40							
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1090906-BLK1)			Prepared: 09/23/21 12:07		Analyzed: 09/23/21 18:40							
2,3,5,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	Q-30
2,4-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	1.14	2.27	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Isophorone	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1090906-BLK1)			Prepared: 09/23/21 12:07		Analyzed: 09/23/21 18:40							
Azobenzene (1,2-DPH)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	0.227	0.227	0.455	ug/L	1	---	---	---	---	---	---	B-02, J
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1	---	---	---	---	---	---	Q-52
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			Recovery: 58 %		Limits: 44-120 %		Dilution: 1x					
2-Fluorobiphenyl (Surr)			50 %		44-120 %		"					
Phenol-d6 (Surr)			20 %		10-133 %		"					
p-Terphenyl-d14 (Surr)			98 %		50-134 %		"					
2-Fluorophenol (Surr)			32 %		19-120 %		"					
2,4,6-Tribromophenol (Surr)			73 %		43-140 %		"					
LCS (1090906-BS1)			Prepared: 09/23/21 12:07		Analyzed: 09/23/21 20:49							
EPA 8270E												
Acenaphthene	2.74	0.0200	0.0400	ug/L	2	4.00	---	69	47-122%	---	---	
Acenaphthylene	3.02	0.0200	0.0400	ug/L	2	4.00	---	75	41-130%	---	---	
Anthracene	3.49	0.0200	0.0400	ug/L	2	4.00	---	87	57-123%	---	---	
Benz(a)anthracene	3.58	0.0200	0.0400	ug/L	2	4.00	---	90	58-125%	---	---	
Benzo(a)pyrene	3.81	0.0300	0.0600	ug/L	2	4.00	---	95	54-128%	---	---	
Benzo(b)fluoranthene	3.78	0.0300	0.0600	ug/L	2	4.00	---	94	53-131%	---	---	
Benzo(k)fluoranthene	3.88	0.0300	0.0600	ug/L	2	4.00	---	97	57-129%	---	---	
Benzo(g,h,i)perylene	3.77	0.0200	0.0400	ug/L	2	4.00	---	94	50-134%	---	---	
Chrysene	3.65	0.0200	0.0400	ug/L	2	4.00	---	91	59-123%	---	---	
Dibenz(a,h)anthracene	3.90	0.0200	0.0400	ug/L	2	4.00	---	98	51-134%	---	---	
Fluoranthene	3.94	0.0200	0.0400	ug/L	2	4.00	---	99	57-128%	---	---	
Fluorene	3.11	0.0200	0.0400	ug/L	2	4.00	---	78	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.63	0.0200	0.0400	ug/L	2	4.00	---	91	52-134%	---	---	
1-Methylnaphthalene	2.41	0.0400	0.0800	ug/L	2	4.00	---	60	41-120%	---	---	
2-Methylnaphthalene	2.38	0.0400	0.0800	ug/L	2	4.00	---	59	40-121%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (1090906-BS1)			Prepared: 09/23/21 12:07		Analyzed: 09/23/21 20:49							
Naphthalene	2.33	0.0400	0.0800	ug/L	2	4.00	---	58	40-121%	---	---	
Phenanthrene	3.39	0.0200	0.0400	ug/L	2	4.00	---	85	59-120%	---	---	
Pyrene	4.00	0.0200	0.0400	ug/L	2	4.00	---	100	57-126%	---	---	
Carbazole	3.40	0.0300	0.0600	ug/L	2	4.00	---	85	60-122%	---	---	
Dibenzofuran	2.84	0.0200	0.0400	ug/L	2	4.00	---	71	53-120%	---	---	
2-Chlorophenol	2.74	0.100	0.200	ug/L	2	4.00	---	69	38-120%	---	---	
4-Chloro-3-methylphenol	3.05	0.200	0.400	ug/L	2	4.00	---	76	52-120%	---	---	
2,4-Dichlorophenol	3.03	0.100	0.200	ug/L	2	4.00	---	76	47-121%	---	---	
2,4-Dimethylphenol	2.69	0.100	0.200	ug/L	2	4.00	---	67	31-124%	---	---	
2,4-Dinitrophenol	5.97	0.500	1.00	ug/L	2	4.00	---	149	23-143%	---	---	Q-29, Q-41
4,6-Dinitro-2-methylphenol	5.19	0.500	1.00	ug/L	2	4.00	---	130	44-137%	---	---	Q-41
2-Methylphenol	2.59	0.0500	0.100	ug/L	2	4.00	---	65	30-120%	---	---	
3+4-Methylphenol(s)	2.45	0.0500	0.100	ug/L	2	4.00	---	61	29-120%	---	---	
2-Nitrophenol	3.25	0.200	0.400	ug/L	2	4.00	---	81	47-123%	---	---	Q-41
4-Nitrophenol	1.24	0.200	0.400	ug/L	2	4.00	---	31	10-120%	---	---	
Pentachlorophenol (PCP)	3.77	0.200	0.400	ug/L	2	4.00	---	94	35-138%	---	---	
Phenol	1.37	0.400	0.800	ug/L	2	4.00	---	34	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	3.53	0.100	0.200	ug/L	2	4.00	---	88	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.66	0.100	0.200	ug/L	2	4.00	---	92	50-121%	---	---	
2,4,5-Trichlorophenol	3.09	0.100	0.200	ug/L	2	4.00	---	77	53-123%	---	---	
Nitrobenzene	3.27	0.200	0.400	ug/L	2	4.00	---	82	45-121%	---	---	
2,4,6-Trichlorophenol	3.15	0.100	0.200	ug/L	2	4.00	---	79	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.68	0.400	0.800	ug/L	2	4.00	---	92	55-135%	---	---	
Butyl benzyl phthalate	3.66	0.400	0.800	ug/L	2	4.00	---	91	53-134%	---	---	
Diethylphthalate	3.57	0.400	0.800	ug/L	2	4.00	---	89	56-125%	---	---	
Dimethylphthalate	3.35	0.400	0.800	ug/L	2	4.00	---	84	45-127%	---	---	
Di-n-butylphthalate	4.21	0.400	0.800	ug/L	2	4.00	---	105	59-127%	---	---	
Di-n-octyl phthalate	3.63	0.400	0.800	ug/L	2	4.00	---	91	51-140%	---	---	
N-Nitrosodimethylamine	1.80	0.0500	0.100	ug/L	2	4.00	---	45	10-120%	---	---	
N-Nitroso-di-n-propylamine	3.32	0.0500	0.100	ug/L	2	4.00	---	83	49-120%	---	---	
N-Nitrosodiphenylamine	3.46	0.0500	0.100	ug/L	2	4.00	---	86	51-123%	---	---	
Bis(2-Chloroethoxy) methane	3.08	0.0500	0.100	ug/L	2	4.00	---	77	48-120%	---	---	
Bis(2-Chloroethyl) ether	3.21	0.0500	0.100	ug/L	2	4.00	---	80	43-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	3.52	0.0500	0.100	ug/L	2	4.00	---	88	37-130%	---	---	Q-41

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Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (1090906-BS1)			Prepared: 09/23/21 12:07		Analyzed: 09/23/21 20:49							
Hexachlorobenzene	3.32	0.0200	0.0400	ug/L	2	4.00	---	83	53-125%	---	---	
Hexachlorobutadiene	1.82	0.0500	0.100	ug/L	2	4.00	---	45	22-124%	---	---	
Hexachlorocyclopentadiene	2.28	0.100	0.200	ug/L	2	4.00	---	57	10-127%	---	---	
Hexachloroethane	1.94	0.0500	0.100	ug/L	2	4.00	---	49	21-120%	---	---	
2-Chloronaphthalene	2.52	0.0200	0.0400	ug/L	2	4.00	---	63	40-120%	---	---	
1,2,4-Trichlorobenzene	1.99	0.0500	0.100	ug/L	2	4.00	---	50	29-120%	---	---	
4-Bromophenyl phenyl ether	3.32	0.0500	0.100	ug/L	2	4.00	---	83	55-124%	---	---	
4-Chlorophenyl phenyl ether	3.02	0.0500	0.100	ug/L	2	4.00	---	76	53-121%	---	---	
Aniline	1.87	0.100	0.200	ug/L	2	4.00	---	47	10-120%	---	---	
4-Chloroaniline	1.51	0.0500	0.100	ug/L	2	4.00	---	38	33-120%	---	---	
2-Nitroaniline	3.28	0.400	0.800	ug/L	2	4.00	---	82	55-127%	---	---	
3-Nitroaniline	1.87	0.400	0.800	ug/L	2	4.00	---	47	41-128%	---	---	
4-Nitroaniline	2.02	0.400	0.800	ug/L	2	4.00	---	50	54-128%	---	---	Q-30
2,4-Dinitrotoluene	3.89	0.200	0.400	ug/L	2	4.00	---	97	57-128%	---	---	
2,6-Dinitrotoluene	3.61	0.200	0.400	ug/L	2	4.00	---	90	57-124%	---	---	
Benzoic acid	4.26	2.50	2.50	ug/L	2	8.00	---	53	10-120%	---	---	
Benzyl alcohol	1.74	0.200	0.400	ug/L	2	4.00	---	43	31-120%	---	---	
Isophorone	3.34	0.0500	0.100	ug/L	2	4.00	---	83	42-124%	---	---	
Azobenzene (1,2-DPH)	3.59	0.0500	0.100	ug/L	2	4.00	---	90	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	4.13	0.500	1.00	ug/L	2	4.00	---	103	57-136%	---	---	B-02
3,3'-Dichlorobenzidine	3.14	1.00	2.00	ug/L	2	8.00	---	39	27-129%	---	---	
1,2-Dinitrobenzene	3.59	0.500	1.00	ug/L	2	4.00	---	90	59-120%	---	---	
1,3-Dinitrobenzene	3.97	0.500	1.00	ug/L	2	4.00	---	99	49-128%	---	---	Q-41
1,4-Dinitrobenzene	4.13	0.500	1.00	ug/L	2	4.00	---	103	72-130%	---	---	Q-41
Pyridine	1.89	0.200	0.400	ug/L	2	4.00	---	47	10-120%	---	---	
1,2-Dichlorobenzene	1.94	0.0500	0.100	ug/L	2	4.00	---	49	32-120%	---	---	
1,3-Dichlorobenzene	1.85	0.0500	0.100	ug/L	2	4.00	---	46	28-120%	---	---	
1,4-Dichlorobenzene	1.89	0.0500	0.100	ug/L	2	4.00	---	47	29-120%	---	---	
<hr/>												
Surr: Nitrobenzene-d5 (Surr)		Recovery: 85 %		Limits: 44-120 %		Dilution: 2x						
2-Fluorobiphenyl (Surr)		67 %		44-120 %		"						
Phenol-d6 (Surr)		28 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		91 %		50-134 %		"						
2-Fluorophenol (Surr)		41 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		95 %		43-140 %		"						

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Philip Nerenberg, Lab Director

Page 117 of 173



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base Neutral)							Water					
LCS Dup (1090906-BSD1)				Prepared: 09/23/21 12:07				Analyzed: 09/23/21 21:24				Q-19
EPA 8270E												
Acenaphthene	2.78	0.0200	0.0400	ug/L	2	4.00	---	70	47-122%	1	30%	
Acenaphthylene	3.05	0.0200	0.0400	ug/L	2	4.00	---	76	41-130%	1	30%	
Anthracene	3.39	0.0200	0.0400	ug/L	2	4.00	---	85	57-123%	3	30%	
Benz(a)anthracene	3.55	0.0200	0.0400	ug/L	2	4.00	---	89	58-125%	1	30%	
Benzo(a)pyrene	3.69	0.0300	0.0600	ug/L	2	4.00	---	92	54-128%	3	30%	
Benzo(b)fluoranthene	3.67	0.0300	0.0600	ug/L	2	4.00	---	92	53-131%	3	30%	
Benzo(k)fluoranthene	3.77	0.0300	0.0600	ug/L	2	4.00	---	94	57-129%	3	30%	
Benzo(g,h,i)perylene	3.68	0.0200	0.0400	ug/L	2	4.00	---	92	50-134%	2	30%	
Chrysene	3.65	0.0200	0.0400	ug/L	2	4.00	---	91	59-123%	0.02	30%	
Dibenz(a,h)anthracene	3.80	0.0200	0.0400	ug/L	2	4.00	---	95	51-134%	3	30%	
Fluoranthene	3.80	0.0200	0.0400	ug/L	2	4.00	---	95	57-128%	4	30%	
Fluorene	3.11	0.0200	0.0400	ug/L	2	4.00	---	78	52-124%	0.03	30%	
Indeno(1,2,3-cd)pyrene	3.51	0.0200	0.0400	ug/L	2	4.00	---	88	52-134%	3	30%	
1-Methylnaphthalene	2.48	0.0400	0.0800	ug/L	2	4.00	---	62	41-120%	3	30%	
2-Methylnaphthalene	2.46	0.0400	0.0800	ug/L	2	4.00	---	61	40-121%	3	30%	
Naphthalene	2.39	0.0400	0.0800	ug/L	2	4.00	---	60	40-121%	3	30%	
Phenanthrene	3.29	0.0200	0.0400	ug/L	2	4.00	---	82	59-120%	3	30%	
Pyrene	3.84	0.0200	0.0400	ug/L	2	4.00	---	96	57-126%	4	30%	
Carbazole	3.81	0.0300	0.0600	ug/L	2	4.00	---	95	60-122%	11	30%	
Dibenzofuran	2.92	0.0200	0.0400	ug/L	2	4.00	---	73	53-120%	3	30%	
2-Chlorophenol	2.78	0.100	0.200	ug/L	2	4.00	---	69	38-120%	1	30%	
4-Chloro-3-methylphenol	2.98	0.200	0.400	ug/L	2	4.00	---	74	52-120%	2	30%	
2,4-Dichlorophenol	3.13	0.100	0.200	ug/L	2	4.00	---	78	47-121%	3	30%	
2,4-Dimethylphenol	2.50	0.100	0.200	ug/L	2	4.00	---	63	31-124%	7	30%	
2,4-Dinitrophenol	5.66	0.500	1.00	ug/L	2	4.00	---	142	23-143%	5	30%	Q-41
4,6-Dinitro-2-methylphenol	5.18	0.500	1.00	ug/L	2	4.00	---	129	44-137%	0.3	30%	Q-41
2-Methylphenol	2.50	0.0500	0.100	ug/L	2	4.00	---	62	30-120%	4	30%	
3+4-Methylphenol(s)	2.45	0.0500	0.100	ug/L	2	4.00	---	61	29-120%	0.2	30%	
2-Nitrophenol	3.40	0.200	0.400	ug/L	2	4.00	---	85	47-123%	4	30%	Q-41
4-Nitrophenol	1.19	0.200	0.400	ug/L	2	4.00	---	30	10-120%	4	30%	
Pentachlorophenol (PCP)	3.71	0.200	0.400	ug/L	2	4.00	---	93	35-138%	2	30%	
Phenol	1.39	0.400	0.800	ug/L	2	4.00	---	35	10-120%	2	30%	
2,3,4,6-Tetrachlorophenol	3.56	0.100	0.200	ug/L	2	4.00	---	89	50-128%	0.8	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base Neutral)							Water					
LCS Dup (1090906-BSD1)					Prepared: 09/23/21 12:07 Analyzed: 09/23/21 21:24						Q-19	
2,3,5,6-Tetrachlorophenol	3.65	0.100	0.200	ug/L	2	4.00	---	91	50-121%	0.4	30%	
2,4,5-Trichlorophenol	3.21	0.100	0.200	ug/L	2	4.00	---	80	53-123%	4	30%	
Nitrobenzene	3.29	0.200	0.400	ug/L	2	4.00	---	82	45-121%	0.7	30%	
2,4,6-Trichlorophenol	3.20	0.100	0.200	ug/L	2	4.00	---	80	50-125%	2	30%	
Bis(2-ethylhexyl)phthalate	3.50	0.400	0.800	ug/L	2	4.00	---	88	55-135%	5	30%	
Butyl benzyl phthalate	3.60	0.400	0.800	ug/L	2	4.00	---	90	53-134%	2	30%	
Diethylphthalate	3.44	0.400	0.800	ug/L	2	4.00	---	86	56-125%	4	30%	
Dimethylphthalate	3.29	0.400	0.800	ug/L	2	4.00	---	82	45-127%	2	30%	
Di-n-butylphthalate	3.96	0.400	0.800	ug/L	2	4.00	---	99	59-127%	6	30%	
Di-n-octyl phthalate	3.50	0.400	0.800	ug/L	2	4.00	---	87	51-140%	4	30%	
N-Nitrosodimethylamine	1.87	0.0500	0.100	ug/L	2	4.00	---	47	10-120%	4	30%	
N-Nitroso-di-n-propylamine	3.33	0.0500	0.100	ug/L	2	4.00	---	83	49-120%	0.5	30%	
N-Nitrosodiphenylamine	3.55	0.0500	0.100	ug/L	2	4.00	---	89	51-123%	3	30%	
Bis(2-Chloroethoxy) methane	3.11	0.0500	0.100	ug/L	2	4.00	---	78	48-120%	0.9	30%	
Bis(2-Chloroethyl) ether	3.39	0.0500	0.100	ug/L	2	4.00	---	85	43-120%	5	30%	
2,2'-Oxybis(1-Chloropropane)	3.51	0.0500	0.100	ug/L	2	4.00	---	88	37-130%	0.2	30%	Q-41
Hexachlorobenzene	3.15	0.0200	0.0400	ug/L	2	4.00	---	79	53-125%	5	30%	
Hexachlorobutadiene	1.92	0.0500	0.100	ug/L	2	4.00	---	48	22-124%	5	30%	
Hexachlorocyclopentadiene	2.27	0.100	0.200	ug/L	2	4.00	---	57	10-127%	0.06	30%	
Hexachloroethane	1.95	0.0500	0.100	ug/L	2	4.00	---	49	21-120%	0.1	30%	
2-Chloronaphthalene	2.59	0.0200	0.0400	ug/L	2	4.00	---	65	40-120%	3	30%	
1,2,4-Trichlorobenzene	2.08	0.0500	0.100	ug/L	2	4.00	---	52	29-120%	5	30%	
4-Bromophenyl phenyl ether	3.29	0.0500	0.100	ug/L	2	4.00	---	82	55-124%	1	30%	
4-Chlorophenyl phenyl ether	3.03	0.0500	0.100	ug/L	2	4.00	---	76	53-121%	0.2	30%	
Aniline	2.26	0.100	0.200	ug/L	2	4.00	---	57	10-120%	19	30%	
4-Chloroaniline	2.31	0.0500	0.100	ug/L	2	4.00	---	58	33-120%	42	30%	Q-24
2-Nitroaniline	3.53	0.400	0.800	ug/L	2	4.00	---	88	55-127%	7	30%	
3-Nitroaniline	2.83	0.400	0.800	ug/L	2	4.00	---	71	41-128%	41	30%	Q-24
4-Nitroaniline	2.72	0.400	0.800	ug/L	2	4.00	---	68	54-128%	30	30%	
2,4-Dinitrotoluene	3.82	0.200	0.400	ug/L	2	4.00	---	95	57-128%	2	30%	
2,6-Dinitrotoluene	3.63	0.200	0.400	ug/L	2	4.00	---	91	57-124%	0.4	30%	
Benzoic acid	3.75	2.50	2.50	ug/L	2	8.00	---	47	10-120%	13	30%	
Benzyl alcohol	1.83	0.200	0.400	ug/L	2	4.00	---	46	31-120%	5	30%	
Isophorone	3.40	0.0500	0.100	ug/L	2	4.00	---	85	42-124%	2	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (1090906-BSD1)					Prepared: 09/23/21 12:07 Analyzed: 09/23/21 21:24						Q-19	
Azobenzene (1,2-DPH)	3.58	0.0500	0.100	ug/L	2	4.00	---	90	61-120%	0.2	30%	
Bis(2-Ethylhexyl) adipate	3.99	0.500	1.00	ug/L	2	4.00	---	100	57-136%	3	30%	B-02
3,3'-Dichlorobenzidine	7.56	1.00	2.00	ug/L	2	8.00	---	94	27-129%	83	30%	Q-24
1,2-Dinitrobenzene	3.59	0.500	1.00	ug/L	2	4.00	---	90	59-120%	0.05	30%	
1,3-Dinitrobenzene	3.94	0.500	1.00	ug/L	2	4.00	---	99	49-128%	0.8	30%	Q-41
1,4-Dinitrobenzene	4.08	0.500	1.00	ug/L	2	4.00	---	102	72-130%	1	30%	Q-41
Pyridine	1.88	0.200	0.400	ug/L	2	4.00	---	47	10-120%	0.6	30%	
1,2-Dichlorobenzene	1.99	0.0500	0.100	ug/L	2	4.00	---	50	32-120%	2	30%	
1,3-Dichlorobenzene	1.92	0.0500	0.100	ug/L	2	4.00	---	48	28-120%	3	30%	
1,4-Dichlorobenzene	1.95	0.0500	0.100	ug/L	2	4.00	---	49	29-120%	3	30%	
<i>Surr: Nitrobenzene-d5 (Surr)</i>												
			Recovery: 87 %	Limits: 44-120 %	Dilution: 2x							
<i>2-Fluorobiphenyl (Surr)</i>			68 %	44-120 %	"							
<i>Phenol-d6 (Surr)</i>			28 %	10-133 %	"							
<i>p-Terphenyl-d14 (Surr)</i>			87 %	50-134 %	"							
<i>2-Fluorophenol (Surr)</i>			42 %	19-120 %	"							
<i>2,4,6-Tribromophenol (Surr)</i>			91 %	43-140 %	"							

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546						Soil						
Blank (1090986-BLK2)			Prepared: 09/27/21 07:49		Analyzed: 09/27/21 12:16							
EPA 8270E												
Acenaphthene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.00188	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.00188	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.00188	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	0.00584	0.00250	0.00500	mg/kg wet	1	---	---	---	---	---	---	B
2-Methylnaphthalene	0.0133	0.00250	0.00500	mg/kg wet	1	---	---	---	---	---	---	B
Naphthalene	0.00278	0.00250	0.00500	mg/kg wet	1	---	---	---	---	---	---	B-02, J
Phenanthrene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Carbazole	ND	0.00188	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Phenol	ND	0.00250	0.00500	mg/kg wet	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	

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ANALYTICAL REPORT

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GSI Water Solutions

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Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546						Soil						
Blank (1090986-BLK2)			Prepared: 09/27/21 07:49		Analyzed: 09/27/21 12:16							
2,3,5,6-Tetrachlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.0188	0.0375	mg/kg wet	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Aniline	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Benzoic acid	ND	0.157	0.312	mg/kg wet	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
Isophorone	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546						Soil						
Blank (1090986-BLK2)			Prepared: 09/27/21 07:49		Analyzed: 09/27/21 12:16							
Azobenzene (1,2-DPH)	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	Q-52
Bis(2-Ethylhexyl) adipate	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.0250	0.0500	mg/kg wet	1	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
Pyridine	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)				Recovery: 82 %		Limits: 37-122 %		Dilution: 1x				
2-Fluorobiphenyl (Surr)				88 %		44-120 %		"				
Phenol-d6 (Surr)				76 %		33-122 %		"				
p-Terphenyl-d14 (Surr)				84 %		54-127 %		"				
2-Fluorophenol (Surr)				81 %		35-120 %		"				
2,4,6-Tribromophenol (Surr)				88 %		39-132 %		"				
LCS (1090986-BS2)						Prepared: 09/27/21 07:49		Analyzed: 09/27/21 12:51				Q-18
EPA 8270E												
Acenaphthene	0.443	0.00532	0.0107	mg/kg wet	4	0.533	---	83	40-123%	---	---	B
Acenaphthylene	0.474	0.00532	0.0107	mg/kg wet	4	0.533	---	89	32-132%	---	---	
Anthracene	0.480	0.00532	0.0107	mg/kg wet	4	0.533	---	90	47-123%	---	---	
Benz(a)anthracene	0.483	0.00532	0.0107	mg/kg wet	4	0.533	---	91	49-126%	---	---	
Benzo(a)pyrene	0.503	0.00800	0.0160	mg/kg wet	4	0.533	---	94	45-129%	---	---	
Benzo(b)fluoranthene	0.517	0.00800	0.0160	mg/kg wet	4	0.533	---	97	45-132%	---	---	
Benzo(k)fluoranthene	0.529	0.00800	0.0160	mg/kg wet	4	0.533	---	99	47-132%	---	---	
Benzo(g,h,i)perylene	0.511	0.00532	0.0107	mg/kg wet	4	0.533	---	96	43-134%	---	---	
Chrysene	0.492	0.00532	0.0107	mg/kg wet	4	0.533	---	92	50-124%	---	---	
Dibenz(a,h)anthracene	0.496	0.00532	0.0107	mg/kg wet	4	0.533	---	93	45-134%	---	---	
Fluoranthene	0.491	0.00532	0.0107	mg/kg wet	4	0.533	---	92	50-127%	---	---	
Fluorene	0.435	0.00532	0.0107	mg/kg wet	4	0.533	---	82	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.471	0.00532	0.0107	mg/kg wet	4	0.533	---	88	45-133%	---	---	
1-Methylnaphthalene	0.474	0.0107	0.0213	mg/kg wet	4	0.533	---	89	40-120%	---	---	B
2-Methylnaphthalene	0.471	0.0107	0.0213	mg/kg wet	4	0.533	---	88	38-122%	---	---	B

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Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****QUALITY CONTROL (QC) SAMPLE RESULTS****Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546						Soil						
LCS (1090986-BS2)						Prepared: 09/27/21 07:49 Analyzed: 09/27/21 12:51					Q-18	
Naphthalene	0.443	0.0107	0.0213	mg/kg wet	4	0.533	---	83	35-123%	---	---	B-02
Phenanthrene	0.448	0.00532	0.0107	mg/kg wet	4	0.533	---	84	50-121%	---	---	
Pyrene	0.487	0.00532	0.0107	mg/kg wet	4	0.533	---	91	47-127%	---	---	
Carbazole	0.457	0.00800	0.0160	mg/kg wet	4	0.533	---	86	50-123%	---	---	
Dibenzofuran	0.461	0.00532	0.0107	mg/kg wet	4	0.533	---	86	44-120%	---	---	
2-Chlorophenol	0.453	0.0267	0.0532	mg/kg wet	4	0.533	---	85	34-121%	---	---	
4-Chloro-3-methylphenol	0.452	0.0532	0.107	mg/kg wet	4	0.533	---	85	45-122%	---	---	
2,4-Dichlorophenol	0.464	0.0267	0.0532	mg/kg wet	4	0.533	---	87	40-122%	---	---	
2,4-Dimethylphenol	0.494	0.0267	0.0532	mg/kg wet	4	0.533	---	93	30-127%	---	---	
2,4-Dinitrophenol	0.492	0.133	0.267	mg/kg wet	4	0.533	---	92	10-137%	---	---	
4,6-Dinitro-2-methylphenol	0.517	0.133	0.267	mg/kg wet	4	0.533	---	97	29-132%	---	---	
2-Methylphenol	0.443	0.0133	0.0267	mg/kg wet	4	0.533	---	83	32-122%	---	---	
3+4-Methylphenol(s)	0.466	0.0133	0.0267	mg/kg wet	4	0.533	---	87	34-120%	---	---	
2-Nitrophenol	0.532	0.0532	0.107	mg/kg wet	4	0.533	---	100	36-123%	---	---	
4-Nitrophenol	0.369	0.0532	0.107	mg/kg wet	4	0.533	---	69	30-132%	---	---	Q-31
Pentachlorophenol (PCP)	0.463	0.0532	0.107	mg/kg wet	4	0.533	---	87	25-133%	---	---	
Phenol	0.425	0.0107	0.0213	mg/kg wet	4	0.533	---	80	34-121%	---	---	
2,3,4,6-Tetrachlorophenol	0.498	0.0267	0.0532	mg/kg wet	4	0.533	---	93	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	0.503	0.0267	0.0532	mg/kg wet	4	0.533	---	94	40-120%	---	---	
2,4,5-Trichlorophenol	0.476	0.0267	0.0532	mg/kg wet	4	0.533	---	89	41-124%	---	---	
Nitrobenzene	0.407	0.0532	0.107	mg/kg wet	4	0.533	---	76	34-122%	---	---	
2,4,6-Trichlorophenol	0.485	0.0267	0.0532	mg/kg wet	4	0.533	---	91	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	0.487	0.0800	0.160	mg/kg wet	4	0.533	---	91	51-133%	---	---	
Butyl benzyl phthalate	0.505	0.0532	0.107	mg/kg wet	4	0.533	---	95	48-132%	---	---	
Diethylphthalate	0.450	0.0532	0.107	mg/kg wet	4	0.533	---	84	50-124%	---	---	
Dimethylphthalate	0.460	0.0532	0.107	mg/kg wet	4	0.533	---	86	48-124%	---	---	
Di-n-butylphthalate	0.503	0.0532	0.107	mg/kg wet	4	0.533	---	94	51-128%	---	---	
Di-n-octyl phthalate	0.508	0.0532	0.107	mg/kg wet	4	0.533	---	95	45-140%	---	---	
N-Nitrosodimethylamine	0.420	0.0133	0.0267	mg/kg wet	4	0.533	---	79	23-120%	---	---	
N-Nitroso-di-n-propylamine	0.467	0.0133	0.0267	mg/kg wet	4	0.533	---	88	36-120%	---	---	
N-Nitrosodiphenylamine	0.475	0.0133	0.0267	mg/kg wet	4	0.533	---	89	38-127%	---	---	
Bis(2-Chloroethoxy) methane	0.458	0.0133	0.0267	mg/kg wet	4	0.533	---	86	36-121%	---	---	
Bis(2-Chloroethyl) ether	0.427	0.0133	0.0267	mg/kg wet	4	0.533	---	80	31-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	0.425	0.0133	0.0267	mg/kg wet	4	0.533	---	80	33-131%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546						Soil						
LCS (1090986-BS2)						Prepared: 09/27/21 07:49 Analyzed: 09/27/21 12:51						Q-18
Hexachlorobenzene	0.452	0.00532	0.0107	mg/kg wet	4	0.533	---	85	45-122%	---	---	
Hexachlorobutadiene	0.431	0.0133	0.0267	mg/kg wet	4	0.533	---	81	32-123%	---	---	
Hexachlorocyclopentadiene	0.416	0.0267	0.0532	mg/kg wet	4	0.533	---	78	10-140%	---	---	
Hexachloroethane	0.426	0.0133	0.0267	mg/kg wet	4	0.533	---	80	28-120%	---	---	
2-Chloronaphthalene	0.486	0.00532	0.0107	mg/kg wet	4	0.533	---	91	41-120%	---	---	
1,2,4-Trichlorobenzene	0.442	0.0133	0.0267	mg/kg wet	4	0.533	---	83	34-120%	---	---	
4-Bromophenyl phenyl ether	0.475	0.0133	0.0267	mg/kg wet	4	0.533	---	89	46-124%	---	---	
4-Chlorophenyl phenyl ether	0.466	0.0133	0.0267	mg/kg wet	4	0.533	---	87	45-121%	---	---	
Aniline	0.322	0.0267	0.0532	mg/kg wet	4	0.533	---	60	10-120%	---	---	Q-31
4-Chloroaniline	0.352	0.0133	0.0267	mg/kg wet	4	0.533	---	66	17-120%	---	---	
2-Nitroaniline	0.500	0.107	0.213	mg/kg wet	4	0.533	---	94	44-127%	---	---	
3-Nitroaniline	0.403	0.107	0.213	mg/kg wet	4	0.533	---	76	33-120%	---	---	
4-Nitroaniline	0.434	0.107	0.213	mg/kg wet	4	0.533	---	81	70-138%	---	---	Q-31
2,4-Dinitrotoluene	0.490	0.0532	0.107	mg/kg wet	4	0.533	---	92	48-126%	---	---	
2,6-Dinitrotoluene	0.480	0.0532	0.107	mg/kg wet	4	0.533	---	90	46-124%	---	---	
Benzoic acid	0.814	0.668	0.668	mg/kg wet	4	1.07	---	76	10-140%	---	---	
Benzyl alcohol	0.308	0.0267	0.0532	mg/kg wet	4	0.533	---	58	29-122%	---	---	Q-31
Isophorone	0.481	0.0133	0.0267	mg/kg wet	4	0.533	---	90	30-122%	---	---	
Azobenzene (1,2-DPH)	0.441	0.0133	0.0267	mg/kg wet	4	0.533	---	83	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	0.492	0.133	0.267	mg/kg wet	4	0.533	---	92	61-121%	---	---	
3,3'-Dichlorobenzidine	2.08	0.107	0.213	mg/kg wet	4	1.07	---	195	22-121%	---	---	Q-29
1,2-Dinitrobenzene	0.481	0.133	0.267	mg/kg wet	4	0.533	---	90	44-120%	---	---	
1,3-Dinitrobenzene	0.477	0.133	0.267	mg/kg wet	4	0.533	---	89	43-127%	---	---	
1,4-Dinitrobenzene	0.466	0.133	0.267	mg/kg wet	4	0.533	---	87	37-132%	---	---	
Pyridine	0.309	0.0267	0.0532	mg/kg wet	4	0.533	---	58	10-120%	---	---	
1,2-Dichlorobenzene	0.422	0.0133	0.0267	mg/kg wet	4	0.533	---	79	33-120%	---	---	
1,3-Dichlorobenzene	0.415	0.0133	0.0267	mg/kg wet	4	0.533	---	78	30-120%	---	---	
1,4-Dichlorobenzene	0.407	0.0133	0.0267	mg/kg wet	4	0.533	---	76	31-120%	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>												
			Recovery: 74 %	Limits: 37-122 %	Dilution: 4x							
<i>2-Fluorobiphenyl (Surr)</i>			89 %	44-120 %	"							
<i>Phenol-d6 (Surr)</i>			77 %	33-122 %	"							
<i>p-Terphenyl-d14 (Surr)</i>			87 %	54-127 %	"							
<i>2-Fluorophenol (Surr)</i>			79 %	35-120 %	"							
<i>2,4,6-Tribromophenol (Surr)</i>			84 %	39-132 %	"							

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Philip Nerenberg, Lab Director

Page 125 of 173



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

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Project: Eatonville

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Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546						Soil						
Duplicate (1090986-DUP2)						Prepared: 09/27/21 07:49 Analyzed: 09/27/21 17:29						R-04
QC Source Sample: HA-01-0921 (A110619-06RE1)												
EPA 8270E												
Acenaphthene	ND	0.0661	0.133	mg/kg dry	20	---	ND	---	---	---	30%	
Acenaphthylene	ND	0.0661	0.133	mg/kg dry	20	---	ND	---	---	---	30%	
Anthracene	ND	0.0661	0.133	mg/kg dry	20	---	ND	---	---	---	30%	
Benz(a)anthracene	ND	0.0661	0.133	mg/kg dry	20	---	0.0833	---	---	***	30%	Q-04
Benzo(a)pyrene	ND	0.0994	0.199	mg/kg dry	20	---	0.111	---	---	***	30%	Q-04
Benzo(b)fluoranthene	ND	0.0994	0.199	mg/kg dry	20	---	0.112	---	---	***	30%	Q-04
Benzo(k)fluoranthene	ND	0.0994	0.199	mg/kg dry	20	---	ND	---	---	---	30%	
Benzo(g,h,i)perylene	ND	0.0661	0.133	mg/kg dry	20	---	0.0739	---	---	***	30%	Q-04
Chrysene	0.0687	0.0661	0.133	mg/kg dry	20	---	0.142	---	---	70	30%	Q-04, J
Dibenz(a,h)anthracene	ND	0.0661	0.133	mg/kg dry	20	---	ND	---	---	---	30%	
Fluoranthene	ND	0.0661	0.133	mg/kg dry	20	---	0.242	---	---	***	30%	Q-04
Fluorene	ND	0.0661	0.133	mg/kg dry	20	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	ND	0.0661	0.133	mg/kg dry	20	---	ND	---	---	---	30%	
1-Methylnaphthalene	ND	0.133	0.265	mg/kg dry	20	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	0.133	0.265	mg/kg dry	20	---	ND	---	---	---	30%	
Naphthalene	0.178	0.133	0.265	mg/kg dry	20	---	0.265	---	---	39	30%	Q-04, J
Phenanthrene	0.108	0.0661	0.133	mg/kg dry	20	---	0.397	---	---	115	30%	Q-04, J
Pyrene	ND	0.0661	0.133	mg/kg dry	20	---	0.173	---	---	***	30%	Q-04
Carbazole	ND	0.0994	0.199	mg/kg dry	20	---	ND	---	---	---	30%	
Dibenzofuran	ND	0.0661	0.133	mg/kg dry	20	---	ND	---	---	---	30%	
2-Chlorophenol	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
4-Chloro-3-methylphenol	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	1.66	3.32	mg/kg dry	20	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	1.66	3.32	mg/kg dry	20	---	ND	---	---	---	30%	
2-Methylphenol	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
2-Nitrophenol	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	
4-Nitrophenol	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546						Soil						
Duplicate (1090986-DUP2)			Prepared: 09/27/21 07:49 Analyzed: 09/27/21 17:29					R-04				
QC Source Sample: HA-01-0921 (A110619-06RE1)												
Phenol	ND	0.133	0.265	mg/kg dry	20	---	0.179	---	---	***	30%	Q-04
2,3,4,6-Tetrachlorophenol	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
Nitrobenzene	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	0.994	1.99	mg/kg dry	20	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	0.661	1.33	mg/kg dry	20	---	1.99	---	---	***	30%	Q-04
Diethylphthalate	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	
Dimethylphthalate	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
2,2'-Oxybis(1-Chloropropane)	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	0.0661	0.133	mg/kg dry	20	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
Hexachloroethane	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	0.0661	0.133	mg/kg dry	20	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
Aniline	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
4-Chloroaniline	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
2-Nitroaniline	ND	1.33	2.65	mg/kg dry	20	---	ND	---	---	---	30%	
3-Nitroaniline	ND	1.33	2.65	mg/kg dry	20	---	ND	---	---	---	30%	
4-Nitroaniline	ND	1.33	2.65	mg/kg dry	20	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	0.661	1.33	mg/kg dry	20	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546						Soil						
Duplicate (1090986-DUP2)			Prepared: 09/27/21 07:49		Analyzed: 09/27/21 17:29		R-04					
QC Source Sample: HA-01-0921 (A110619-06RE1)												
Benzoic acid	ND	8.30	16.6	mg/kg dry	20	---	ND	---	---	---	30%	Q-52
Benzyl alcohol	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
Isophorone	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
Azobenzene (1,2-DPH)	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
Bis(2-Ethylhexyl) adipate	ND	1.66	3.32	mg/kg dry	20	---	ND	---	---	---	30%	
3,3'-Dichlorobenzidine	ND	1.33	2.65	mg/kg dry	20	---	ND	---	---	---	30%	
1,2-Dinitrobenzene	ND	1.66	3.32	mg/kg dry	20	---	ND	---	---	---	30%	
1,3-Dinitrobenzene	ND	1.66	3.32	mg/kg dry	20	---	ND	---	---	---	30%	
1,4-Dinitrobenzene	ND	1.66	3.32	mg/kg dry	20	---	ND	---	---	---	30%	
Pyridine	ND	0.332	0.661	mg/kg dry	20	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.166	0.332	mg/kg dry	20	---	ND	---	---	---	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 70 %		Limits: 37-122 %		Dilution: 20x						
2-Fluorobiphenyl (Surr)		82 %		44-120 %		"						
Phenol-d6 (Surr)		61 %		33-122 %		"						
p-Terphenyl-d14 (Surr)		84 %		54-127 %		"						
2-Fluorophenol (Surr)		61 %		35-120 %		"						
2,4,6-Tribromophenol (Surr)		110 %		39-132 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546						Soil						
Blank (21J0772-BLK2)			Prepared: 10/21/21 14:38		Analyzed: 10/21/21 18:32							
EPA 8270E												
Acenaphthene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.00188	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.00188	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.00188	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.00250	0.00500	mg/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.00250	0.00500	mg/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	0.00250	0.00500	mg/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Carbazole	ND	0.00188	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Phenol	ND	0.00250	0.00500	mg/kg wet	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****QUALITY CONTROL (QC) SAMPLE RESULTS****Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546						Soil						
Blank (21J0772-BLK2)			Prepared: 10/21/21 14:38		Analyzed: 10/21/21 18:32							
2,3,5,6-Tetrachlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.0188	0.0375	mg/kg wet	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.00125	0.00250	mg/kg wet	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Aniline	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.0125	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Benzoic acid	ND	0.157	0.312	mg/kg wet	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
Isophorone	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546						Soil						
Blank (21J0772-BLK2)			Prepared: 10/21/21 14:38		Analyzed: 10/21/21 18:32							
Azobenzene (1,2-DPH)	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	Q-52
Bis(2-Ethylhexyl) adipate	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.0250	0.0500	mg/kg wet	1	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.0312	0.0625	mg/kg wet	1	---	---	---	---	---	---	
Pyridine	ND	0.00625	0.0125	mg/kg wet	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 88 %		Limits: 37-122 %		Dilution: 1x		Q-41				
2-Fluorobiphenyl (Surr)		80 %		44-120 %		"						
Phenol-d6 (Surr)		89 %		33-122 %		"						
p-Terphenyl-d14 (Surr)		90 %		54-127 %		"						
2-Fluorophenol (Surr)		85 %		35-120 %		"						
2,4,6-Tribromophenol (Surr)		93 %		39-132 %		"		Q-41				
LCS (21J0772-BS2)			Prepared: 10/21/21 14:38		Analyzed: 10/21/21 19:08							Q-18
EPA 8270E												
Acenaphthene	0.467	0.00266	0.00534	mg/kg wet	2	0.533	---	88	40-123%	---	---	
Acenaphthylene	0.509	0.00266	0.00534	mg/kg wet	2	0.533	---	95	32-132%	---	---	
Anthracene	0.501	0.00266	0.00534	mg/kg wet	2	0.533	---	94	47-123%	---	---	
Benz(a)anthracene	0.508	0.00266	0.00534	mg/kg wet	2	0.533	---	95	49-126%	---	---	
Benzo(a)pyrene	0.529	0.00400	0.00800	mg/kg wet	2	0.533	---	99	45-129%	---	---	
Benzo(b)fluoranthene	0.505	0.00400	0.00800	mg/kg wet	2	0.533	---	95	45-132%	---	---	
Benzo(k)fluoranthene	0.506	0.00400	0.00800	mg/kg wet	2	0.533	---	95	47-132%	---	---	
Benzo(g,h,i)perylene	0.466	0.00266	0.00534	mg/kg wet	2	0.533	---	87	43-134%	---	---	
Chrysene	0.485	0.00266	0.00534	mg/kg wet	2	0.533	---	91	50-124%	---	---	
Dibenz(a,h)anthracene	0.515	0.00266	0.00534	mg/kg wet	2	0.533	---	97	45-134%	---	---	
Fluoranthene	0.521	0.00266	0.00534	mg/kg wet	2	0.533	---	98	50-127%	---	---	
Fluorene	0.484	0.00266	0.00534	mg/kg wet	2	0.533	---	91	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.451	0.00266	0.00534	mg/kg wet	2	0.533	---	85	45-133%	---	---	
1-Methylnaphthalene	0.460	0.00534	0.0107	mg/kg wet	2	0.533	---	86	40-120%	---	---	
2-Methylnaphthalene	0.445	0.00534	0.0107	mg/kg wet	2	0.533	---	83	38-122%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546						Soil						
LCS (21J0772-BS2)						Prepared: 10/21/21 14:38 Analyzed: 10/21/21 19:08						Q-18
Naphthalene	0.459	0.00534	0.0107	mg/kg wet	2	0.533	---	86	35-123%	---	---	
Phenanthrene	0.475	0.00266	0.00534	mg/kg wet	2	0.533	---	89	50-121%	---	---	
Pyrene	0.524	0.00266	0.00534	mg/kg wet	2	0.533	---	98	47-127%	---	---	
Carbazole	0.588	0.00400	0.00800	mg/kg wet	2	0.533	---	110	50-123%	---	---	
Dibenzofuran	0.472	0.00266	0.00534	mg/kg wet	2	0.533	---	89	44-120%	---	---	
2-Chlorophenol	0.514	0.0133	0.0266	mg/kg wet	2	0.533	---	96	34-121%	---	---	
4-Chloro-3-methylphenol	0.510	0.0266	0.0534	mg/kg wet	2	0.533	---	96	45-122%	---	---	
2,4-Dichlorophenol	0.522	0.0133	0.0266	mg/kg wet	2	0.533	---	98	40-122%	---	---	
2,4-Dimethylphenol	0.559	0.0133	0.0266	mg/kg wet	2	0.533	---	105	30-127%	---	---	
2,4-Dinitrophenol	0.614	0.0666	0.133	mg/kg wet	2	0.533	---	115	10-137%	---	---	Q-41
4,6-Dinitro-2-methylphenol	0.622	0.0666	0.133	mg/kg wet	2	0.533	---	117	29-132%	---	---	Q-41
2-Methylphenol	0.512	0.00666	0.0133	mg/kg wet	2	0.533	---	96	32-122%	---	---	
3+4-Methylphenol(s)	0.531	0.00666	0.0133	mg/kg wet	2	0.533	---	100	34-120%	---	---	
2-Nitrophenol	0.557	0.0266	0.0534	mg/kg wet	2	0.533	---	104	36-123%	---	---	
4-Nitrophenol	0.540	0.0266	0.0534	mg/kg wet	2	0.533	---	101	30-132%	---	---	
Pentachlorophenol (PCP)	0.474	0.0266	0.0534	mg/kg wet	2	0.533	---	89	25-133%	---	---	
Phenol	0.565	0.00534	0.0107	mg/kg wet	2	0.533	---	106	34-121%	---	---	Q-41
2,3,4,6-Tetrachlorophenol	0.525	0.0133	0.0266	mg/kg wet	2	0.533	---	98	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	0.560	0.0133	0.0266	mg/kg wet	2	0.533	---	105	40-120%	---	---	
2,4,5-Trichlorophenol	0.536	0.0133	0.0266	mg/kg wet	2	0.533	---	101	41-124%	---	---	
Nitrobenzene	0.530	0.0266	0.0534	mg/kg wet	2	0.533	---	99	34-122%	---	---	
2,4,6-Trichlorophenol	0.546	0.0133	0.0266	mg/kg wet	2	0.533	---	102	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	0.489	0.0400	0.0800	mg/kg wet	2	0.533	---	92	51-133%	---	---	
Butyl benzyl phthalate	0.497	0.0266	0.0534	mg/kg wet	2	0.533	---	93	48-132%	---	---	
Diethylphthalate	0.478	0.0266	0.0534	mg/kg wet	2	0.533	---	90	50-124%	---	---	
Dimethylphthalate	0.481	0.0266	0.0534	mg/kg wet	2	0.533	---	90	48-124%	---	---	
Di-n-butylphthalate	0.533	0.0266	0.0534	mg/kg wet	2	0.533	---	100	51-128%	---	---	
Di-n-octyl phthalate	0.509	0.0266	0.0534	mg/kg wet	2	0.533	---	96	45-140%	---	---	
N-Nitrosodimethylamine	0.494	0.00666	0.0133	mg/kg wet	2	0.533	---	93	23-120%	---	---	
N-Nitroso-di-n-propylamine	0.501	0.00666	0.0133	mg/kg wet	2	0.533	---	94	36-120%	---	---	
N-Nitrosodiphenylamine	0.532	0.00666	0.0133	mg/kg wet	2	0.533	---	100	38-127%	---	---	
Bis(2-Chloroethoxy) methane	0.489	0.00666	0.0133	mg/kg wet	2	0.533	---	92	36-121%	---	---	
Bis(2-Chloroethyl) ether	0.495	0.00666	0.0133	mg/kg wet	2	0.533	---	93	31-120%	---	---	Q-41
2,2'-Oxybis(1-Chloropropane)	0.578	0.00666	0.0133	mg/kg wet	2	0.533	---	108	33-131%	---	---	Q-41

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Philip Nerenberg, Lab Director



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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546						Soil						
LCS (21J0772-BS2)						Prepared: 10/21/21 14:38 Analyzed: 10/21/21 19:08						Q-18
Hexachlorobenzene	0.480	0.00266	0.00534	mg/kg wet	2	0.533	---	90	45-122%	---	---	
Hexachlorobutadiene	0.442	0.00666	0.0133	mg/kg wet	2	0.533	---	83	32-123%	---	---	
Hexachlorocyclopentadiene	0.361	0.0133	0.0266	mg/kg wet	2	0.533	---	68	10-140%	---	---	
Hexachloroethane	0.431	0.00666	0.0133	mg/kg wet	2	0.533	---	81	28-120%	---	---	
2-Chloronaphthalene	0.472	0.00266	0.00534	mg/kg wet	2	0.533	---	88	41-120%	---	---	
1,2,4-Trichlorobenzene	0.454	0.00666	0.0133	mg/kg wet	2	0.533	---	85	34-120%	---	---	
4-Bromophenyl phenyl ether	0.499	0.00666	0.0133	mg/kg wet	2	0.533	---	94	46-124%	---	---	
4-Chlorophenyl phenyl ether	0.481	0.00666	0.0133	mg/kg wet	2	0.533	---	90	45-121%	---	---	
Aniline	0.254	0.0133	0.0266	mg/kg wet	2	0.533	---	48	10-120%	---	---	
4-Chloroaniline	0.212	0.00666	0.0133	mg/kg wet	2	0.533	---	40	17-120%	---	---	
2-Nitroaniline	0.549	0.0534	0.107	mg/kg wet	2	0.533	---	103	44-127%	---	---	
3-Nitroaniline	0.557	0.0534	0.107	mg/kg wet	2	0.533	---	104	33-120%	---	---	
4-Nitroaniline	0.553	0.0534	0.107	mg/kg wet	2	0.533	---	104	70-138%	---	---	
2,4-Dinitrotoluene	0.562	0.0266	0.0534	mg/kg wet	2	0.533	---	105	48-126%	---	---	
2,6-Dinitrotoluene	0.547	0.0266	0.0534	mg/kg wet	2	0.533	---	103	46-124%	---	---	
Benzoic acid	0.957	0.334	0.666	mg/kg wet	2	1.07	---	90	10-140%	---	---	
Benzyl alcohol	0.479	0.0133	0.0266	mg/kg wet	2	0.533	---	90	29-122%	---	---	
Isophorone	0.516	0.00666	0.0133	mg/kg wet	2	0.533	---	97	30-122%	---	---	
Azobenzene (1,2-DPH)	0.524	0.00666	0.0133	mg/kg wet	2	0.533	---	98	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	0.531	0.0666	0.133	mg/kg wet	2	0.533	---	100	61-121%	---	---	
3,3'-Dichlorobenzidine	2.20	0.0534	0.107	mg/kg wet	2	1.07	---	206	22-121%	---	---	E, Q-29, Q-41
1,2-Dinitrobenzene	0.551	0.0666	0.133	mg/kg wet	2	0.533	---	103	44-120%	---	---	
1,3-Dinitrobenzene	0.595	0.0666	0.133	mg/kg wet	2	0.533	---	111	43-127%	---	---	Q-41
1,4-Dinitrobenzene	0.625	0.0666	0.133	mg/kg wet	2	0.533	---	117	37-132%	---	---	Q-41
Pyridine	0.367	0.0133	0.0266	mg/kg wet	2	0.533	---	69	10-120%	---	---	
1,2-Dichlorobenzene	0.446	0.00666	0.0133	mg/kg wet	2	0.533	---	84	33-120%	---	---	
1,3-Dichlorobenzene	0.448	0.00666	0.0133	mg/kg wet	2	0.533	---	84	30-120%	---	---	
1,4-Dichlorobenzene	0.442	0.00666	0.0133	mg/kg wet	2	0.533	---	83	31-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery: 99 %	Limits: 37-122 %	Dilution: 2x							Q-41
2-Fluorobiphenyl (Surr)			83 %	44-120 %	"							
Phenol-d6 (Surr)			96 %	33-122 %	"							
p-Terphenyl-d14 (Surr)			87 %	54-127 %	"							
2-Fluorophenol (Surr)			92 %	35-120 %	"							
2,4,6-Tribromophenol (Surr)			107 %	39-132 %	"							Q-41

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Philip Nerenberg, Lab Director



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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546						Soil						
Duplicate (21J0772-DUP3)						Prepared: 10/21/21 14:38 Analyzed: 10/25/21 12:09					H-02, R-04	
QC Source Sample: Non-SDG (A1J0343-02RE1)												
Acenaphthene	ND	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	
Acenaphthylene	ND	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	
Anthracene	ND	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	
Benz(a)anthracene	0.00528	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	Q-05, J
Benzo(a)pyrene	0.00828	0.00791	0.0158	mg/kg dry	4	---	ND	---	---	---	30%	Q-05, J
Benzo(b)fluoranthene	0.0125	0.00791	0.0158	mg/kg dry	4	---	0.0101	---	---	22	30%	J
Benzo(k)fluoranthene	ND	0.00791	0.0158	mg/kg dry	4	---	ND	---	---	---	30%	
Benzo(g,h,i)perylene	0.00640	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	Q-05, J
Chrysene	0.00610	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	Q-05, J
Dibenz(a,h)anthracene	ND	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	
Fluoranthene	0.00610	0.00526	0.0106	mg/kg dry	4	---	0.00667	---	---	9	30%	J
Fluorene	ND	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	ND	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	
1-Methylnaphthalene	ND	0.0106	0.0211	mg/kg dry	4	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	0.0106	0.0211	mg/kg dry	4	---	ND	---	---	---	30%	
Naphthalene	ND	0.0106	0.0211	mg/kg dry	4	---	ND	---	---	---	30%	
Phenanthrene	0.00643	0.00526	0.0106	mg/kg dry	4	---	0.00620	---	---	4	30%	J
Pyrene	0.00689	0.00526	0.0106	mg/kg dry	4	---	0.00692	---	---	0.4	30%	J
Carbazole	ND	0.00791	0.0158	mg/kg dry	4	---	ND	---	---	---	30%	
Dibenzofuran	ND	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	
2-Chlorophenol	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
4-Chloro-3-methylphenol	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	0.132	0.264	mg/kg dry	4	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	0.132	0.264	mg/kg dry	4	---	ND	---	---	---	30%	
2-Methylphenol	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
2-Nitrophenol	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
4-Nitrophenol	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
Phenol	ND	0.0106	0.0211	mg/kg dry	4	---	ND	---	---	---	30%	

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Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546						Soil						
Duplicate (21J0772-DUP3)			Prepared: 10/21/21 14:38		Analyzed: 10/25/21 12:09		H-02, R-04					
QC Source Sample: Non-SDG (A1J0343-02RE1)												
2,3,4,6-Tetrachlorophenol	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
Nitrobenzene	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	0.0791	0.158	mg/kg dry	4	---	ND	---	---	---	30%	
Butyl benzyl phthalate	0.0587	0.0526	0.106	mg/kg dry	4	---	0.0594	---	---	1	30%	J
Diethylphthalate	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
Dimethylphthalate	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
Di-n-butylphthalate	0.0605	0.0526	0.106	mg/kg dry	4	---	ND	---	---		30%	Q-05, J
Di-n-octyl phthalate	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
2,2'-Oxybis(1-Chloropropane)	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
Hexachloroethane	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	0.00526	0.0106	mg/kg dry	4	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
Aniline	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
4-Chloroaniline	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
2-Nitroaniline	ND	0.106	0.211	mg/kg dry	4	---	ND	---	---	---	30%	
3-Nitroaniline	ND	0.106	0.211	mg/kg dry	4	---	ND	---	---	---	30%	
4-Nitroaniline	ND	0.106	0.211	mg/kg dry	4	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	0.0526	0.106	mg/kg dry	4	---	ND	---	---	---	30%	
Benzoic acid	ND	0.661	1.32	mg/kg dry	4	---	ND	---	---	---	30%	

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Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546						Soil						
Duplicate (21J0772-DUP3)			Prepared: 10/21/21 14:38			Analyzed: 10/25/21 12:09			H-02, R-04			
QC Source Sample: Non-SDG (A1J0343-02RE1)												
Benzyl alcohol	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	Q-52
Isophorone	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
Azobenzene (1,2-DPH)	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
Bis(2-Ethylhexyl) adipate	ND	0.132	0.264	mg/kg dry	4	---	ND	---	---	---	30%	
3,3'-Dichlorobenzidine	ND	0.106	0.211	mg/kg dry	4	---	ND	---	---	---	30%	
1,2-Dinitrobenzene	ND	0.132	0.264	mg/kg dry	4	---	ND	---	---	---	30%	
1,3-Dinitrobenzene	ND	0.132	0.264	mg/kg dry	4	---	ND	---	---	---	30%	
1,4-Dinitrobenzene	ND	0.132	0.264	mg/kg dry	4	---	ND	---	---	---	30%	
Pyridine	ND	0.0264	0.0526	mg/kg dry	4	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.0132	0.0264	mg/kg dry	4	---	ND	---	---	---	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 96 %		Limits: 37-122 %		Dilution: 4x		Q-41				
2-Fluorobiphenyl (Surr)		85 %		44-120 %		"						
Phenol-d6 (Surr)		77 %		33-122 %		"						
p-Terphenyl-d14 (Surr)		90 %		54-127 %		"						
2-Fluorophenol (Surr)		73 %		35-120 %		"						
2,4,6-Tribromophenol (Surr)		102 %		39-132 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091096 - EPA 3015A						Water						
Blank (1091096-BLK1)			Prepared: 09/29/21 09:04		Analyzed: 10/06/21 11:47							
EPA 6020B												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.110	0.200	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	

LCS (1091096-BS1)

Prepared: 09/29/21 09:04 Analyzed: 10/06/21 11:52

EPA 6020B												
Arsenic	58.3	0.500	1.00	ug/L	1	55.6	---	105	80-120%	---	---	
Barium	55.2	1.00	2.00	ug/L	1	55.6	---	99	80-120%	---	---	
Beryllium	27.2	0.100	0.200	ug/L	1	27.8	---	98	80-120%	---	---	
Cadmium	53.6	0.100	0.200	ug/L	1	55.6	---	96	80-120%	---	---	
Chromium	53.3	1.00	2.00	ug/L	1	55.6	---	96	80-120%	---	---	
Cobalt	53.4	0.500	1.00	ug/L	1	55.6	---	96	80-120%	---	---	
Copper	55.8	1.00	2.00	ug/L	1	55.6	---	100	80-120%	---	---	
Lead	55.5	0.110	0.200	ug/L	1	55.6	---	100	80-120%	---	---	
Nickel	56.7	1.00	2.00	ug/L	1	55.6	---	102	80-120%	---	---	
Selenium	29.0	0.500	1.00	ug/L	1	27.8	---	104	80-120%	---	---	
Thallium	28.2	0.100	0.200	ug/L	1	27.8	---	101	80-120%	---	---	
Vanadium	53.8	1.00	2.00	ug/L	1	55.6	---	97	80-120%	---	---	
Zinc	53.3	2.00	4.00	ug/L	1	55.6	---	96	80-120%	---	---	

Duplicate (1091096-DUP1)

Prepared: 09/29/21 09:04 Analyzed: 10/06/21 12:29

QC Source Sample: Non-SDG (A110605-03)

Arsenic	1.47	0.500	1.00	ug/L	1	---	1.33	---	---	10	20%	
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Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091096 - EPA 3015A						Water						
Duplicate (1091096-DUP1)			Prepared: 09/29/21 09:04		Analyzed: 10/06/21 12:29							
QC Source Sample: Non-SDG (A110605-03)												
Barium	21.2	1.00	2.00	ug/L	1	---	21.2	---	---	0.2	20%	
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Cobalt	2.86	0.500	1.00	ug/L	1	---	2.81	---	---	2	20%	
Copper	1.13	1.00	2.00	ug/L	1	---	1.06	---	---	6	20%	
Lead	0.279	0.110	0.200	ug/L	1	---	0.262	---	---	6	20%	
Nickel	1.93	1.00	2.00	ug/L	1	---	2.11	---	---	9	20%	
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	3.56	1.00	2.00	ug/L	1	---	3.39	---	---	5	20%	
Zinc	9.59	2.00	4.00	ug/L	1	---	9.54	---	---	0.5	20%	

Matrix Spike (1091096-MS1)

Prepared: 09/29/21 09:04 Analyzed: 10/06/21 12:34

QC Source Sample: Non-SDG (A110605-03)**EPA 6020B**

Arsenic	57.5	0.500	1.00	ug/L	1	55.6	1.33	101	75-125%	---	---	
Barium	75.7	1.00	2.00	ug/L	1	55.6	21.2	98	75-125%	---	---	
Beryllium	28.8	0.100	0.200	ug/L	1	27.8	ND	104	75-125%	---	---	
Cadmium	53.7	0.100	0.200	ug/L	1	55.6	ND	97	75-125%	---	---	
Chromium	51.9	1.00	2.00	ug/L	1	55.6	ND	93	75-125%	---	---	
Cobalt	53.6	0.500	1.00	ug/L	1	55.6	2.81	91	75-125%	---	---	
Copper	53.5	1.00	2.00	ug/L	1	55.6	1.06	94	75-125%	---	---	
Lead	54.2	0.110	0.200	ug/L	1	55.6	0.262	97	75-125%	---	---	
Nickel	55.7	1.00	2.00	ug/L	1	55.6	2.11	96	75-125%	---	---	
Selenium	27.1	0.500	1.00	ug/L	1	27.8	ND	98	75-125%	---	---	
Thallium	27.4	0.100	0.200	ug/L	1	27.8	ND	99	75-125%	---	---	
Vanadium	56.1	1.00	2.00	ug/L	1	55.6	3.39	95	75-125%	---	---	
Zinc	60.0	2.00	4.00	ug/L	1	55.6	9.54	91	75-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091171 - EPA 3051A						Soil						
Blank (1091171-BLK1)			Prepared: 09/30/21 12:03		Analyzed: 10/01/21 03:37							
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Beryllium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Cadmium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Chromium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Cobalt	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Copper	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Nickel	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Selenium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Thallium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Vanadium	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	

LCS (1091171-BS1)

Prepared: 09/30/21 12:03 Analyzed: 10/01/21 03:41

EPA 6020B												
Arsenic	48.8	0.500	1.00	mg/kg wet	10	50.0	---	98	80-120%	---	---	
Barium	46.8	0.500	1.00	mg/kg wet	10	50.0	---	94	80-120%	---	---	
Beryllium	24.4	0.500	1.00	mg/kg wet	10	25.0	---	98	80-120%	---	---	
Cadmium	45.9	0.100	0.200	mg/kg wet	10	50.0	---	92	80-120%	---	---	
Chromium	47.5	0.500	1.00	mg/kg wet	10	50.0	---	95	80-120%	---	---	
Cobalt	46.7	0.500	1.00	mg/kg wet	10	50.0	---	93	80-120%	---	---	
Copper	48.6	1.00	2.00	mg/kg wet	10	50.0	---	97	80-120%	---	---	
Lead	47.9	0.100	0.200	mg/kg wet	10	50.0	---	96	80-120%	---	---	
Nickel	48.2	1.00	2.00	mg/kg wet	10	50.0	---	96	80-120%	---	---	
Selenium	25.1	0.500	1.00	mg/kg wet	10	25.0	---	100	80-120%	---	---	
Thallium	23.9	0.100	0.200	mg/kg wet	10	25.0	---	96	80-120%	---	---	
Vanadium	47.2	1.00	2.00	mg/kg wet	10	50.0	---	94	80-120%	---	---	
Zinc	47.3	2.00	4.00	mg/kg wet	10	50.0	---	95	80-120%	---	---	

Duplicate (1091171-DUP1)

Prepared: 09/30/21 12:03 Analyzed: 10/01/21 04:17

QC Source Sample: Non-SDG (A110365-12)

Arsenic	10.5	1.17	2.34	mg/kg dry	10	---	9.95	---	---	5	20%	
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Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****QUALITY CONTROL (QC) SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091171 - EPA 3051A						Soil						
Duplicate (1091171-DUP1)			Prepared: 09/30/21 12:03		Analyzed: 10/01/21 04:17							
QC Source Sample: Non-SDG (A110365-12)												
Barium	77.5	1.17	2.34	mg/kg dry	10	---	73.1	---	---	6	20%	
Beryllium	1.26	1.17	2.34	mg/kg dry	10	---	ND	---	---		20%	J
Cadmium	0.240	0.234	0.469	mg/kg dry	10	---	ND	---	---		20%	J
Chromium	37.6	1.17	2.34	mg/kg dry	10	---	35.7	---	---	5	20%	
Cobalt	12.5	1.17	2.34	mg/kg dry	10	---	11.4	---	---	9	20%	
Copper	31.7	2.34	4.69	mg/kg dry	10	---	29.6	---	---	7	20%	
Lead	14.4	0.234	0.469	mg/kg dry	10	---	13.8	---	---	4	20%	
Nickel	31.5	2.34	4.69	mg/kg dry	10	---	29.1	---	---	8	20%	
Selenium	ND	1.17	2.34	mg/kg dry	10	---	ND	---	---	---	20%	
Thallium	0.247	0.234	0.469	mg/kg dry	10	---	ND	---	---		20%	J
Vanadium	53.6	2.34	4.69	mg/kg dry	10	---	51.7	---	---	4	20%	
Zinc	106	4.69	9.37	mg/kg dry	10	---	99.9	---	---	6	20%	

Matrix Spike (1091171-MS1)

Prepared: 09/30/21 12:03 Analyzed: 10/01/21 04:21

QC Source Sample: Non-SDG (A110365-12)**EPA 6020B**

Arsenic	132	1.26	2.51	mg/kg dry	10	126	9.95	97	75-125%	---	---	
Barium	201	1.26	2.51	mg/kg dry	10	126	73.1	102	75-125%	---	---	
Beryllium	59.5	1.26	2.51	mg/kg dry	10	62.8	ND	95	75-125%	---	---	
Cadmium	116	0.251	0.502	mg/kg dry	10	126	ND	93	75-125%	---	---	
Chromium	172	1.26	2.51	mg/kg dry	10	126	35.7	108	75-125%	---	---	
Cobalt	127	1.26	2.51	mg/kg dry	10	126	11.4	92	75-125%	---	---	
Copper	151	2.51	5.02	mg/kg dry	10	126	29.6	97	75-125%	---	---	
Lead	126	0.251	0.502	mg/kg dry	10	126	13.8	90	75-125%	---	---	
Nickel	154	2.51	5.02	mg/kg dry	10	126	29.1	100	75-125%	---	---	
Selenium	60.6	1.26	2.51	mg/kg dry	10	62.8	ND	96	75-125%	---	---	
Thallium	58.7	0.251	0.502	mg/kg dry	10	62.8	ND	93	75-125%	---	---	
Vanadium	194	2.51	5.02	mg/kg dry	10	126	51.7	114	75-125%	---	---	
Zinc	228	5.02	10.0	mg/kg dry	10	126	99.9	102	75-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J1074 - EPA 3051A						Soil						
Blank (21J1074-BLK1)			Prepared: 10/28/21 13:47 Analyzed: 10/29/21 00:00									
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Beryllium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Cadmium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Chromium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Cobalt	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Copper	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Nickel	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Selenium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Thallium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Vanadium	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	

LCS (21J1074-BS1)

Prepared: 10/28/21 13:47 Analyzed: 10/29/21 00:13

EPA 6020B												
Arsenic	53.5	0.500	1.00	mg/kg wet	10	50.0	---	107	80-120%	---	---	
Barium	49.3	0.500	1.00	mg/kg wet	10	50.0	---	99	80-120%	---	---	
Beryllium	27.8	0.100	0.200	mg/kg wet	10	25.0	---	111	80-120%	---	---	
Cadmium	50.7	0.100	0.200	mg/kg wet	10	50.0	---	101	80-120%	---	---	
Chromium	50.9	0.500	1.00	mg/kg wet	10	50.0	---	102	80-120%	---	---	
Cobalt	52.4	0.500	1.00	mg/kg wet	10	50.0	---	105	80-120%	---	---	
Copper	54.7	1.00	2.00	mg/kg wet	10	50.0	---	109	80-120%	---	---	
Lead	51.6	0.100	0.200	mg/kg wet	10	50.0	---	103	80-120%	---	---	
Nickel	53.8	1.00	2.00	mg/kg wet	10	50.0	---	108	80-120%	---	---	
Selenium	24.3	0.500	1.00	mg/kg wet	10	25.0	---	97	80-120%	---	---	
Thallium	24.9	0.100	0.200	mg/kg wet	10	25.0	---	99	80-120%	---	---	
Vanadium	53.5	1.00	2.00	mg/kg wet	10	50.0	---	107	80-120%	---	---	
Zinc	52.6	2.00	4.00	mg/kg wet	10	50.0	---	105	80-120%	---	---	

Duplicate (21J1074-DUP1)

Prepared: 10/28/21 13:47 Analyzed: 10/29/21 00:30

QC Source Sample: Non-SDG (A1J0272-02)

Arsenic	5.19	0.524	1.05	mg/kg dry	10	---	4.90	---	---	6	20%	
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Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J1074 - EPA 3051A						Soil						
Duplicate (21J1074-DUP1)			Prepared: 10/28/21 13:47 Analyzed: 10/29/21 00:30									
QC Source Sample: Non-SDG (A1J0272-02)												
Barium	139	0.524	1.05	mg/kg dry	10	---	136	---	---	3	20%	
Beryllium	0.539	0.105	0.209	mg/kg dry	10	---	0.572	---	---	6	20%	
Cadmium	0.301	0.105	0.209	mg/kg dry	10	---	0.335	---	---	11	20%	
Chromium	30.9	0.524	1.05	mg/kg dry	10	---	28.2	---	---	9	20%	
Cobalt	30.4	0.524	1.05	mg/kg dry	10	---	29.7	---	---	2	20%	
Copper	17.1	1.05	2.09	mg/kg dry	10	---	16.5	---	---	4	20%	
Lead	14.2	0.105	0.209	mg/kg dry	10	---	13.8	---	---	3	20%	
Nickel	17.9	1.05	2.09	mg/kg dry	10	---	17.0	---	---	5	20%	
Selenium	ND	0.524	1.05	mg/kg dry	10	---	ND	---	---	---	20%	
Thallium	0.171	0.105	0.209	mg/kg dry	10	---	0.147	---	---	15	20%	
Vanadium	73.8	1.05	2.09	mg/kg dry	10	---	70.1	---	---	5	20%	
Zinc	56.5	2.09	4.19	mg/kg dry	10	---	54.7	---	---	3	20%	

Matrix Spike (21J1074-MS1)

Prepared: 10/28/21 13:47 Analyzed: 10/29/21 00:34

QC Source Sample: Non-SDG (A1J0272-02)**EPA 6020B**

Arsenic	59.2	0.525	1.05	mg/kg dry	10	52.5	4.90	104	75-125%	---	---	
Barium	194	0.525	1.05	mg/kg dry	10	52.5	136	112	75-125%	---	---	
Beryllium	29.6	0.105	0.210	mg/kg dry	10	26.2	0.572	111	75-125%	---	---	
Cadmium	53.3	0.105	0.210	mg/kg dry	10	52.5	0.335	101	75-125%	---	---	
Chromium	84.3	0.525	1.05	mg/kg dry	10	52.5	28.2	107	75-125%	---	---	
Cobalt	83.4	0.525	1.05	mg/kg dry	10	52.5	29.7	102	75-125%	---	---	
Copper	72.9	1.05	2.10	mg/kg dry	10	52.5	16.5	108	75-125%	---	---	
Lead	67.7	0.105	0.210	mg/kg dry	10	52.5	13.8	103	75-125%	---	---	
Nickel	74.8	1.05	2.10	mg/kg dry	10	52.5	17.0	110	75-125%	---	---	
Selenium	24.7	0.525	1.05	mg/kg dry	10	26.2	ND	94	75-125%	---	---	
Thallium	25.4	0.105	0.210	mg/kg dry	10	26.2	0.147	96	75-125%	---	---	
Vanadium	131	1.05	2.10	mg/kg dry	10	52.5	70.1	116	75-125%	---	---	
Zinc	114	2.10	4.20	mg/kg dry	10	52.5	54.7	113	75-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091019 - Matrix Matched Direct Inject						Water						
Blank (1091019-BLK1)			Prepared: 09/27/21 15:02 Analyzed: 10/03/21 02:33									
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Blank (1091019-BLK2)			Prepared: 09/27/21 15:02 Analyzed: 10/03/21 22:28									
EPA 6020B (Diss)												
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	Q-16
Blank (1091019-BLK3)			Prepared: 09/27/21 15:02 Analyzed: 11/11/21 15:59									
EPA 6020B (Diss)												
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
LCS (1091019-BS1)			Prepared: 09/27/21 15:02 Analyzed: 10/03/21 02:38									
EPA 6020B (Diss)												
Arsenic	56.5	0.500	1.00	ug/L	1	55.6	---	102	80-120%	---	---	
Barium	55.4	0.500	1.00	ug/L	1	55.6	---	100	80-120%	---	---	
Cadmium	52.0	0.100	0.200	ug/L	1	55.6	---	94	80-120%	---	---	
Chromium	53.0	1.00	2.00	ug/L	1	55.6	---	95	80-120%	---	---	
Cobalt	53.5	0.500	1.00	ug/L	1	55.6	---	96	80-120%	---	---	
Copper	55.7	1.00	2.00	ug/L	1	55.6	---	100	80-120%	---	---	
Lead	54.1	0.100	0.200	ug/L	1	55.6	---	97	80-120%	---	---	
Nickel	54.2	1.00	2.00	ug/L	1	55.6	---	98	80-120%	---	---	
Thallium	26.8	0.100	0.200	ug/L	1	27.8	---	97	80-120%	---	---	
Vanadium	54.1	1.00	2.00	ug/L	1	55.6	---	97	80-120%	---	---	
Zinc	53.6	2.00	4.00	ug/L	1	55.6	---	96	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091019 - Matrix Matched Direct Inject						Water						
LCS (1091019-BS2)												
Prepared: 09/27/21 15:02						Analyzed: 10/03/21 22:34						
EPA 6020B (Diss)												
Selenium	27.6	0.500	1.00	ug/L	1	27.8	---	99	80-120%	---	---	Q-16
LCS (1091019-BS3)												
Prepared: 09/27/21 15:02						Analyzed: 11/11/21 16:04						
EPA 6020B (Diss)												
Beryllium	23.8	0.100	0.200	ug/L	1	27.8	---	86	80-120%	---	---	Q-16
Duplicate (1091019-DUP1)												
Prepared: 09/27/21 15:02						Analyzed: 10/03/21 02:49						
QC Source Sample: Non-SDG (A110437-01)												
Arsenic	11.2	0.500	1.00	ug/L	1	---	10.9	---	---	2	20%	
Barium	126	0.500	1.00	ug/L	1	---	123	---	---	2	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Cobalt	12.3	0.500	1.00	ug/L	1	---	11.9	---	---	3	20%	
Copper	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Lead	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Nickel	4.95	1.00	2.00	ug/L	1	---	4.81	---	---	3	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	4.09	1.00	2.00	ug/L	1	---	3.71	---	---	10	20%	
Zinc	2.41	2.00	4.00	ug/L	1	---	ND	---	---		20%	Q-05, J
Duplicate (1091019-DUP2)												
Prepared: 09/27/21 15:02						Analyzed: 10/03/21 22:44						
QC Source Sample: Non-SDG (A110437-01RE1)												
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	Q-16
Duplicate (1091019-DUP3)												
Prepared: 09/27/21 15:02						Analyzed: 11/11/21 16:14						
QC Source Sample: Non-SDG (A110437-01)												
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	Q-16
Matrix Spike (1091019-MS1)												
Prepared: 09/27/21 15:02						Analyzed: 10/03/21 02:54						
QC Source Sample: Non-SDG (A110437-01)												
EPA 6020B (Diss)												

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Philip Nerenberg, Lab Director

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Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091019 - Matrix Matched Direct Inject							Water					
Matrix Spike (1091019-MS1)				Prepared: 09/27/21 15:02		Analyzed: 10/03/21 02:54						
QC Source Sample: Non-SDG (A110437-01)												
Arsenic	68.5	0.500	1.00	ug/L	1	55.6	10.9	104	75-125%	---	---	
Barium	177	0.500	1.00	ug/L	1	55.6	123	97	75-125%	---	---	
Cadmium	53.2	0.100	0.200	ug/L	1	55.6	ND	96	75-125%	---	---	
Chromium	53.3	1.00	2.00	ug/L	1	55.6	ND	96	75-125%	---	---	
Cobalt	64.8	0.500	1.00	ug/L	1	55.6	11.9	95	75-125%	---	---	
Copper	54.6	1.00	2.00	ug/L	1	55.6	ND	98	75-125%	---	---	
Lead	53.6	0.100	0.200	ug/L	1	55.6	ND	97	75-125%	---	---	
Nickel	58.9	1.00	2.00	ug/L	1	55.6	4.81	97	75-125%	---	---	
Thallium	26.3	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	---	---	
Vanadium	58.3	1.00	2.00	ug/L	1	55.6	3.71	98	75-125%	---	---	
Zinc	54.3	2.00	4.00	ug/L	1	55.6	ND	98	75-125%	---	---	
Matrix Spike (1091019-MS2)				Prepared: 09/27/21 15:02		Analyzed: 10/03/21 22:50						
QC Source Sample: Non-SDG (A110437-01RE1)												
EPA 6020B (Diss)												
Selenium	28.1	0.500	1.00	ug/L	1	27.8	ND	101	75-125%	---	---	Q-16
Matrix Spike (1091019-MS3)				Prepared: 09/27/21 15:02		Analyzed: 11/11/21 16:20						
QC Source Sample: Non-SDG (A110437-01)												
EPA 6020B (Diss)												
Beryllium	24.8	0.100	0.200	ug/L	1	27.8	ND	89	75-125%	---	---	Q-16

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091023 - Matrix Matched Direct Inject						Water						
Blank (1091023-BLK1)						Prepared: 09/27/21 16:10 Analyzed: 10/03/21 04:41						
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3
Barium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	FILT3
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	FILT3
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	FILT3
Lead	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	FILT3
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	FILT3
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	FILT3
Vanadium	1.52	1.00	2.00	ug/L	1	---	---	---	---	---	---	FILT3, J
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	FILT3
Blank (1091023-BLK2)						Prepared: 09/27/21 16:10 Analyzed: 10/03/21 23:39						
EPA 6020B (Diss)												
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3, Q-16
Blank (1091023-BLK3)						Prepared: 09/27/21 16:10 Analyzed: 11/11/21 16:25						
EPA 6020B (Diss)												
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
LCS (1091023-BS1)						Prepared: 09/27/21 16:10 Analyzed: 10/03/21 04:46						
EPA 6020B (Diss)												
Arsenic	56.6	0.500	1.00	ug/L	1	55.6	---	102	80-120%	---	---	
Barium	55.1	0.500	1.00	ug/L	1	55.6	---	99	80-120%	---	---	
Cadmium	52.7	0.100	0.200	ug/L	1	55.6	---	95	80-120%	---	---	
Chromium	53.6	1.00	2.00	ug/L	1	55.6	---	96	80-120%	---	---	
Cobalt	54.0	0.500	1.00	ug/L	1	55.6	---	97	80-120%	---	---	
Copper	55.9	1.00	2.00	ug/L	1	55.6	---	101	80-120%	---	---	
Lead	52.8	0.100	0.200	ug/L	1	55.6	---	95	80-120%	---	---	
Nickel	54.6	1.00	2.00	ug/L	1	55.6	---	98	80-120%	---	---	
Thallium	26.4	0.100	0.200	ug/L	1	27.8	---	95	80-120%	---	---	
Vanadium	55.6	1.00	2.00	ug/L	1	55.6	---	100	80-120%	---	---	
Zinc	54.1	2.00	4.00	ug/L	1	55.6	---	97	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091023 - Matrix Matched Direct Inject						Water						
LCS (1091023-BS2)			Prepared: 09/27/21 16:10 Analyzed: 10/03/21 23:45									
<u>EPA 6020B (Diss)</u>												
Selenium	28.3	0.500	1.00	ug/L	1	27.8	---	102	80-120%	---	---	Q-16, Q-41
LCS (1091023-BS3)			Prepared: 09/27/21 16:10 Analyzed: 11/11/21 16:30									
<u>EPA 6020B (Diss)</u>												
Beryllium	24.2	0.100	0.200	ug/L	1	27.8	---	87	80-120%	---	---	Q-16
Duplicate (1091023-DUP1)			Prepared: 09/27/21 16:10 Analyzed: 10/03/21 04:57									
<u>QC Source Sample: EB02-0921 (A110619-16)</u>												
<u>EPA 6020B (Diss)</u>												
Arsenic	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Barium	0.613	0.500	1.00	ug/L	1	---	0.586	---	---	4	20%	J
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Cobalt	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Copper	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Lead	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Nickel	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	1.33	1.00	2.00	ug/L	1	---	1.42	---	---	6	20%	J
Zinc	ND	2.00	4.00	ug/L	1	---	ND	---	---	---	20%	
Duplicate (1091023-DUP2)			Prepared: 09/27/21 16:10 Analyzed: 10/03/21 23:56									
<u>QC Source Sample: EB02-0921 (A110619-16RE1)</u>												
<u>EPA 6020B (Diss)</u>												
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	Q-16
Duplicate (1091023-DUP3)			Prepared: 09/27/21 16:10 Analyzed: 11/11/21 16:40									
<u>QC Source Sample: EB02-0921 (A110619-16)</u>												
<u>EPA 6020B (Diss)</u>												
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	Q-16

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091023 - Matrix Matched Direct Inject						Water						
Matrix Spike (1091023-MS1)				Prepared: 09/27/21 16:10 Analyzed: 10/03/21 05:02								
QC Source Sample: EB02-0921 (A110619-16)												
EPA 6020B (Diss)												
Arsenic	56.0	0.500	1.00	ug/L	1	55.6	ND	101	75-125%	---	---	
Barium	55.1	0.500	1.00	ug/L	1	55.6	0.586	98	75-125%	---	---	
Cadmium	52.1	0.100	0.200	ug/L	1	55.6	ND	94	75-125%	---	---	
Chromium	53.3	1.00	2.00	ug/L	1	55.6	ND	96	75-125%	---	---	
Cobalt	53.8	0.500	1.00	ug/L	1	55.6	ND	97	75-125%	---	---	
Copper	55.7	1.00	2.00	ug/L	1	55.6	ND	100	75-125%	---	---	
Lead	54.2	0.100	0.200	ug/L	1	55.6	ND	98	75-125%	---	---	
Nickel	54.4	1.00	2.00	ug/L	1	55.6	ND	98	75-125%	---	---	
Thallium	27.1	0.100	0.200	ug/L	1	27.8	ND	98	75-125%	---	---	
Vanadium	55.4	1.00	2.00	ug/L	1	55.6	1.42	97	75-125%	---	---	
Zinc	53.4	2.00	4.00	ug/L	1	55.6	ND	96	75-125%	---	---	
Matrix Spike (1091023-MS2)												
Prepared: 09/27/21 16:10 Analyzed: 10/04/21 00:01												
QC Source Sample: EB02-0921 (A110619-16RE1)												
EPA 6020B (Diss)												
Selenium	28.4	0.500	1.00	ug/L	1	27.8	ND	102	75-125%	---	---	Q-16, Q-41
Matrix Spike (1091023-MS3)												
Prepared: 09/27/21 16:10 Analyzed: 11/11/21 16:56												
QC Source Sample: EB02-0921 (A110619-16)												
EPA 6020B (Diss)												
Beryllium	23.7	0.100	0.200	ug/L	1	27.8	ND	85	75-125%	---	---	Q-16

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090991 - EPA 3060A						Soil						
Blank (1090991-BLK1)			Prepared: 09/27/21 08:32 Analyzed: 09/29/21 16:18									
EPA 7196A												
Chromium (VI)	ND	0.225	0.450	mg/kg wet	1	---	---	---	---	---	---	
LCS (1090991-BS1)			Prepared: 09/27/21 08:32 Analyzed: 09/29/21 16:19									
EPA 7196A												
Chromium (VI)	16.6	0.225	0.450	mg/kg wet	1	20.0	---	83	80-120%	---	---	
Duplicate (1090991-DUP1)			Prepared: 09/27/21 08:32 Analyzed: 09/29/21 16:21									
QC Source Sample: HA-01-0921 (A110619-06)												
EPA 7196A												
Chromium (VI)	ND	4.96	9.93	mg/kg dry	10	---	ND	---	---	---	20%	R-04
Matrix Spike (1090991-MS1)			Prepared: 09/27/21 08:32 Analyzed: 09/29/21 16:23									
QC Source Sample: HA-01-0921 (A110619-06)												
EPA 7196A												
Chromium (VI)	ND	4.89	9.78	mg/kg dry	10	48.3	ND		75-125%	---	---	Cr6-02, R-04
Matrix Spike (1090991-MS2)			Prepared: 09/27/21 08:32 Analyzed: 09/29/21 16:25									
QC Source Sample: HA-01-0921 (A110619-06)												
EPA 7196A												
Chromium (VI)	57.3	50.3	101	mg/kg dry	100	2850	ND	2	75-125%	---	---	Cr6-02, J
Post Spike (1090991-PS1)			Prepared: 09/27/21 08:32 Analyzed: 09/29/21 16:25									
QC Source Sample: HA-01-0921 (A110619-06)												
EPA 7196A												
Chromium (VI)	3970			ug/L	10	3980	14.4	99	85-115%		---	R-04

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0136 - EPA 3060A						Soil						
Blank (21K0136-BLK1)			Prepared: 11/03/21 12:23 Analyzed: 11/04/21 11:21									
EPA 7196A												
Chromium (VI)	ND	0.225	0.450	mg/kg wet	1	---	---	---	---	---	---	
LCS (21K0136-BS1)			Prepared: 11/03/21 12:23 Analyzed: 11/04/21 11:22									
EPA 7196A												
Chromium (VI)	17.6	0.225	0.450	mg/kg wet	1	20.0	---	88	80-120%	---	---	
Duplicate (21K0136-DUP1)			Prepared: 11/03/21 12:23 Analyzed: 11/04/21 11:23									
QC Source Sample: DU-01-0921---After Processing (A110619-11)												
EPA 7196A												
Chromium (VI)	ND	1.02	2.05	mg/kg dry	5	---	ND	---	---	---	20%	Q-57, R-04
Matrix Spike (21K0136-MS1)			Prepared: 11/03/21 12:23 Analyzed: 11/04/21 11:24									
QC Source Sample: DU-01-0921---After Processing (A110619-11)												
EPA 7196A												
Chromium (VI)	12.1	1.02	2.03	mg/kg dry	5	20.1	ND	60	75-125%	---	---	Q-01, Q-57
Matrix Spike (21K0136-MS2)			Prepared: 11/03/21 12:23 Analyzed: 11/04/21 11:24									
QC Source Sample: DU-01-0921---After Processing (A110619-11)												
EPA 7196A												
Chromium (VI)	1170	20.6	41.1	mg/kg dry	100	1180	ND	99	75-125%	---	---	
Post Spike (21K0136-PS1)			Prepared: 11/03/21 12:23 Analyzed: 11/04/21 11:28									
QC Source Sample: DU-01-0921---After Processing (A110619-11)												
EPA 7196A												
Chromium (VI)	1730			ug/L	5	1990	7.52	86	85-115%		---	Q-57

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503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****QUALITY CONTROL (QC) SAMPLE RESULTS****Demand Parameters**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090883 - PSEP-5310B TOC						Sediment						
Blank (1090883-BLK1)			Prepared: 09/23/21 08:30 Analyzed: 09/27/21 19:13									
SM 5310 B MOD												
Total Organic Carbon	ND	200	200	mg/kg	1	---	---	---	---	---	---	
LCS (1090883-BS1)			Prepared: 09/23/21 08:30 Analyzed: 09/27/21 19:24									
SM 5310 B MOD												
Total Organic Carbon	9300	200	200	mg/kg	1	10000	---	93	88-111%	---	---	B-02
Duplicate (1090883-DUP5)			Prepared: 09/23/21 08:30 Analyzed: 09/28/21 17:09									
QC Source Sample: HA-01-0921 (A110619-06RE2)												
SM 5310 B MOD												
Total Organic Carbon	190000	200	200	mg/kg	1	---	150000	---	---	25	27%	Q-16
Duplicate (1090883-DUP6)			Prepared: 09/23/21 08:30 Analyzed: 09/28/21 17:20									
QC Source Sample: HA-01-0921 (A110619-06RE2)												
SM 5310 B MOD												
Total Organic Carbon	210000	200	200	mg/kg	1	---	150000	---	---	32	27%	Q-04, Q-16

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ORELAP ID: OR100062

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Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0826 - PSEP-5310B TOC						Soil						
Blank (21J0826-BLK1)			Prepared: 10/22/21 13:19 Analyzed: 10/26/21 14:18									
SM 5310 B MOD												
Total Organic Carbon	ND	200	200	mg/kg	1	---	---	---	---	---	---	
Blank (21J0826-BLK2)			Prepared: 10/22/21 13:19 Analyzed: 10/26/21 14:29									
SM 5310 B MOD												
Total Organic Carbon	ND	200	200	mg/kg	1	---	---	---	---	---	---	A-01
Blank (21J0826-BLK3)			Prepared: 10/22/21 13:19 Analyzed: 10/26/21 14:40									
SM 5310 B MOD												
Total Organic Carbon	ND	200	200	mg/kg	1	---	---	---	---	---	---	A-02
Blank (21J0826-BLK4)			Prepared: 10/22/21 13:19 Analyzed: 10/26/21 14:51									
SM 5310 B MOD												
Total Organic Carbon	ND	200	200	mg/kg	1	---	---	---	---	---	---	A-03
LCS (21J0826-BS1)			Prepared: 10/22/21 13:19 Analyzed: 10/26/21 15:01									
SM 5310 B MOD												
Total Organic Carbon	9600	200	200	mg/kg	1	10000	---	96	88-111%	---	---	
Duplicate (21J0826-DUP1)			Prepared: 10/22/21 13:19 Analyzed: 10/26/21 15:23									
QC Source Sample: DU-01-0921---After Processing (A110619-11)												
SM 5310 B MOD												
Total Organic Carbon	12000	200	200	mg/kg	1	---	11000	---	---	5	27%	
Duplicate (21J0826-DUP2)			Prepared: 10/22/21 13:19 Analyzed: 10/26/21 15:34									
QC Source Sample: DU-01-0921---After Processing (A110619-11)												
SM 5310 B MOD												
Total Organic Carbon	12000	200	200	mg/kg	1	---	11000	---	---	3	27%	

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091000 - Method Prep: Aq						Water						
Blank (1091000-BLK1)			Prepared: 09/27/21 11:27 Analyzed: 09/27/21 19:50									
SM 5310 C												
Total Organic Carbon	ND	0.750	1.50	mg/L	1	---	---	---	---	---	---	
LCS (1091000-BS1)			Prepared: 09/27/21 11:27 Analyzed: 09/27/21 20:49									
SM 5310 C												
Total Organic Carbon	10.4	0.750	1.50	mg/L	1	10.0	---	104	90-114%	---	---	
Duplicate (1091000-DUP1)			Prepared: 09/27/21 11:27 Analyzed: 09/27/21 22:18									
QC Source Sample: Non-SDG (A110631-03)												
Total Organic Carbon	2.04	0.750	1.50	mg/L	1	---	2.00	---	---	2	10%	
Matrix Spike (1091000-MS1)			Prepared: 09/27/21 11:27 Analyzed: 09/27/21 22:48									
QC Source Sample: Non-SDG (A110631-03)												
SM 5310 C												
Total Organic Carbon	12.2	0.758	1.52	mg/L	1	10.0	2.00	102	90-114%	---	---	

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****QUALITY CONTROL (QC) SAMPLE RESULTS****Percent Dry Weight**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090769 - Total Solids (Dry Weight)						Soil						
Duplicate (1090769-DUP1)			Prepared: 09/21/21 09:10 Analyzed: 09/22/21 08:03									
QC Source Sample: Non-SDG (A110365-03)												
% Solids	39.6	1.00	1.00	%	1	---	39.3	---	---	0.8	10%	
Duplicate (1090769-DUP2)			Prepared: 09/21/21 09:10 Analyzed: 09/22/21 08:03									
QC Source Sample: Non-SDG (A110584-10)												
% Solids	83.7	1.00	1.00	%	1	---	82.8	---	---	1	10%	
Duplicate (1090769-DUP3)			Prepared: 09/21/21 09:10 Analyzed: 09/22/21 08:03									
QC Source Sample: DU-02-0921---As Received (A110619-12)												
EPA 8000D												
% Solids	98.2	1.00	1.00	%	1	---	97.7	---	---	0.5	10%	
Duplicate (1090769-DUP4)			Prepared: 09/21/21 09:10 Analyzed: 09/22/21 08:03									
QC Source Sample: Non-SDG (A110640-03)												
% Solids	81.6	1.00	1.00	%	1	---	82.6	---	---	1	10%	
Duplicate (1090769-DUP5)			Prepared: 09/21/21 19:54 Analyzed: 09/22/21 08:03									
QC Source Sample: Non-SDG (A110750-01)												
% Solids	99.2	1.00	1.00	%	1	---	99.2	---	---	0.08	10%	
Duplicate (1090769-DUP6)			Prepared: 09/21/21 19:54 Analyzed: 09/22/21 08:03									
QC Source Sample: Non-SDG (A110750-02)												
% Solids	99.2	1.00	1.00	%	1	---	99.1	---	---	0.1	10%	
Duplicate (1090769-DUP7)			Prepared: 09/21/21 19:54 Analyzed: 09/22/21 08:03									
QC Source Sample: Non-SDG (A110750-03)												
% Solids	98.9	1.00	1.00	%	1	---	99.2	---	---	0.3	10%	
Duplicate (1090769-DUP8)			Prepared: 09/21/21 19:54 Analyzed: 09/22/21 08:03									
QC Source Sample: Non-SDG (A110751-01)												
% Solids	99.2	1.00	1.00	%	1	---	99.2	---	---	0.02	10%	

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GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Eatonville**

Project Number: **0171.067**

Project Manager: **Genevieve Schutzius**

Report ID:

A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090769 - Total Solids (Dry Weight)							Soil					

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

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Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****QUALITY CONTROL (QC) SAMPLE RESULTS****Percent Dry Weight**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0863 - Total Solids (Dry Weight)							Soil					
Duplicate (21J0863-DUP1)			Prepared: 10/25/21 07:49 Analyzed: 10/26/21 07:45									
QC Source Sample: DU-01-0921---After Processing (A110619-11)												
EPA 8000D												
% Solids	98.5	1.00	1.00	%	1	---	98.4	---	---	0.1	10%	
Duplicate (21J0863-DUP2)			Prepared: 10/25/21 07:49 Analyzed: 10/26/21 07:45									
QC Source Sample: Non-SDG (A1J0840-04)												
% Solids	64.9	1.00	1.00	%	1	---	65.3	---	---	0.6	10%	
Duplicate (21J0863-DUP3)			Prepared: 10/25/21 07:49 Analyzed: 10/26/21 07:45									
QC Source Sample: Non-SDG (A1J0845-10)												
% Solids	86.4	1.00	1.00	%	1	---	86.5	---	---	0.06	10%	
Duplicate (21J0863-DUP4)			Prepared: 10/25/21 07:49 Analyzed: 10/26/21 07:45									
QC Source Sample: Non-SDG (A1J0931-13)												
% Solids	93.8	1.00	1.00	%	1	---	93.2	---	---	0.6	10%	
Duplicate (21J0863-DUP5)			Prepared: 10/25/21 19:20 Analyzed: 10/26/21 07:45									
QC Source Sample: Non-SDG (A1J0993-01)												
% Solids	83.3	1.00	1.00	%	1	---	86.3	---	---	4	10%	
Duplicate (21J0863-DUP6)			Prepared: 10/25/21 19:20 Analyzed: 10/26/21 07:45									
QC Source Sample: Non-SDG (A1J0993-02)												
% Solids	82.7	1.00	1.00	%	1	---	84.3	---	---	2	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****Weck Laboratories, Inc.****QUALITY CONTROL (QC) SAMPLE RESULTS****Hexavalent Chromium by IC**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W111952 - _NONE (LC)						Water						
Blank (W111952-BLK1)			Prepared: 09/29/21 10:00 Analyzed: 09/29/21 11:14									
EPA 218.6												
Chromium 6+, Dissolved	ND	---	0.020	ug/l	1	---	---	---	---	---	---	
Chromium 6+	ND	---	0.020	ug/l	1	---	---	---	---	---	---	
LCS (W111952-BS1)			Prepared: 09/29/21 10:00 Analyzed: 09/29/21 11:26									
EPA 218.6												
Chromium 6+, Dissolved	5.02	---	0.020	ug/l	1	5.00	---	100	90-110%	---	---	
Chromium 6+	5.02	---	0.020	ug/l	1	5.00	---	100	90-110%	---	---	
Matrix Spike (W111952-MS1)			Prepared: 09/29/21 10:00 Analyzed: 09/29/21 11:43									
QC Source Sample: Non-SDG (1H27026-01)												
EPA 218.6												
Chromium 6+, Dissolved	5.67	---	0.020	ug/l	1	5.00	0.582	102	88-112%	---	---	
Chromium 6+	5.67	---	0.020	ug/l	1	5.00	0.582	102	88-112%	---	---	
Matrix Spike (W111952-MS2)			Prepared: 09/29/21 10:00 Analyzed: 09/29/21 12:06									
QC Source Sample: Non-SDG (1109010-01)												
EPA 218.6												
Chromium 6+, Dissolved	5.23	---	0.020	ug/l	1	5.00	0.0611	103	88-112%	---	---	
Chromium 6+	5.23	---	0.020	ug/l	1	5.00	0.0495	104	88-112%	---	---	
Matrix Spike Dup (W111952-MSD1)			Prepared: 09/29/21 10:00 Analyzed: 09/29/21 11:54									
QC Source Sample: Non-SDG (1H27026-01)												
Chromium 6+, Dissolved	5.73	---	0.020	ug/l	1	5.00	0.582	103	88-112%	0.9	10%	
Chromium 6+	5.73	---	0.020	ug/l	1	5.00	0.582	103	88-112%	0.9	10%	
Matrix Spike Dup (W111952-MSD2)			Prepared: 09/29/21 10:00 Analyzed: 09/29/21 12:18									
QC Source Sample: Non-SDG (1109010-01)												
Chromium 6+, Dissolved	5.32	---	0.020	ug/l	1	5.00	0.0611	105	88-112%	2	10%	
Chromium 6+	5.32	---	0.020	ug/l	1	5.00	0.0495	105	88-112%	2	10%	

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Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140**

SAMPLE PREPARATION INFORMATION

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1090931							
A110619-15	Water	EPA 8260D	09/16/21 17:25	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A110619-16	Water	EPA 8260D	09/16/21 17:55	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A110619-17	Water	EPA 8260D	09/16/21 10:30	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A110619-18	Water	EPA 8260D	09/16/21 11:35	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A110619-19	Water	EPA 8260D	09/16/21 15:00	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A110619-20	Water	EPA 8260D	09/16/21 15:15	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A110619-21	Water	EPA 8260D	09/16/21 13:45	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1091097							
A110619-06	Soil	5035A/8260D	09/14/21 13:10	09/14/21 13:10	14.51g/25mL	5g/5mL	1.72
A110619-07	Soil	5035A/8260D	09/14/21 11:45	09/14/21 11:45	13.95g/25mL	5g/5mL	1.79
A110619-08	Soil	5035A/8260D	09/13/21 16:20	09/13/21 16:20	13.83g/25mL	5g/5mL	1.81
A110619-09	Soil	5035A/8260D	09/13/21 16:25	09/13/21 16:25	10.71g/25mL	5g/5mL	2.33
A110619-10	Soil	5035A/8260D	09/14/21 17:00	09/14/21 17:00	236.38g/250mL	5g/5mL	1.06
A110619-12	Soil	5035A/8260D	09/15/21 16:30	09/15/21 16:30	179.79g/250mL	5g/5mL	1.39
A110619-14	Soil	5035A/8260D	09/16/21 14:35	09/16/21 14:35	3.8g/5mL	5g/5mL	1.32

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1091107							
A110619-15	Water	EPA 8082A	09/16/21 17:25	09/29/21 10:35	840mL/5mL	1000mL/5mL	1.19
A110619-16	Water	EPA 8082A	09/16/21 17:55	09/29/21 10:35	560mL/5mL	1000mL/5mL	1.79
A110619-17	Water	EPA 8082A	09/16/21 10:30	09/29/21 10:35	1050mL/5mL	1000mL/5mL	0.95
A110619-18	Water	EPA 8082A	09/16/21 11:35	09/29/21 10:35	1050mL/5mL	1000mL/5mL	0.95
A110619-19	Water	EPA 8082A	09/16/21 15:00	09/29/21 10:35	1060mL/5mL	1000mL/5mL	0.94
A110619-20	Water	EPA 8082A	09/16/21 15:15	09/29/21 10:35	1040mL/5mL	1000mL/5mL	0.96

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1090703							
A110619-06	Soil	EPA 8082A	09/14/21 13:10	09/20/21 07:42	5.09g/5mL	10g/5mL	1.96
A110619-07	Soil	EPA 8082A	09/14/21 11:45	09/20/21 07:42	10.18g/5mL	10g/5mL	0.98

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****SAMPLE PREPARATION INFORMATION****Polychlorinated Biphenyls by EPA 8082A****Prep: EPA 3546**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A110619-08	Soil	EPA 8082A	09/13/21 16:20	09/20/21 07:42	10.03g/5mL	10g/5mL	1.00
A110619-09	Soil	EPA 8082A	09/13/21 16:25	09/20/21 07:42	10.08g/5mL	10g/5mL	0.99
A110619-14	Soil	EPA 8082A	09/16/21 14:35	09/20/21 07:42	10.17g/5mL	10g/5mL	0.98
Batch: 21J1037							
A110619-11	Soil	EPA 8082A	09/14/21 17:00	10/28/21 07:26	10.59g/5mL	10g/5mL	0.94
A110619-13	Soil	EPA 8082A	09/15/21 16:30	10/28/21 07:26	10.18g/5mL	10g/5mL	0.98

Semivolatile Organic Compounds by EPA 8270E**Prep: EPA 3510C (Acid/Base Neutral)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1090906							
A110619-15	Water	EPA 8270E	09/16/21 17:25	09/23/21 12:07	750mL/1mL	1000mL/1mL	1.33
A110619-16	Water	EPA 8270E	09/16/21 17:55	09/23/21 12:07	570mL/1mL	1000mL/1mL	1.75
A110619-17RE2	Water	EPA 8270E	09/16/21 10:30	09/23/21 12:07	1030mL/1mL	1000mL/1mL	0.97
A110619-18RE1	Water	EPA 8270E	09/16/21 11:35	09/23/21 12:07	1040mL/1mL	1000mL/1mL	0.96
A110619-19RE1	Water	EPA 8270E	09/16/21 15:00	09/23/21 12:07	1060mL/1mL	1000mL/1mL	0.94
A110619-20RE1	Water	EPA 8270E	09/16/21 15:15	09/23/21 12:07	1070mL/1mL	1000mL/1mL	0.94

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1090986							
A110619-06RE1	Soil	EPA 8270E	09/14/21 13:10	09/27/21 07:49	15.01g/2mL	15g/2mL	1.00
A110619-07	Soil	EPA 8270E	09/14/21 11:45	09/27/21 07:49	15.04g/2mL	15g/2mL	1.00
A110619-08	Soil	EPA 8270E	09/13/21 16:20	09/27/21 07:49	15.4g/2mL	15g/2mL	0.97
A110619-09	Soil	EPA 8270E	09/13/21 16:25	09/27/21 07:49	15.27g/2mL	15g/2mL	0.98
A110619-14RE1	Soil	EPA 8270E	09/16/21 14:35	09/27/21 07:49	15.23g/10mL	15g/2mL	4.92
Batch: 21J0772							
A110619-11	Soil	EPA 8270E	09/14/21 17:00	10/21/21 14:38	15.24g/2mL	15g/2mL	0.98
A110619-13	Soil	EPA 8270E	09/15/21 16:30	10/21/21 14:38	15.14g/2mL	15g/2mL	0.99

Total Metals by EPA 6020B (ICPMS)**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1091096							

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****SAMPLE PREPARATION INFORMATION****Total Metals by EPA 6020B (ICPMS)****Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A110619-15	Water	EPA 6020B	09/16/21 17:25	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A110619-16	Water	EPA 6020B	09/16/21 17:55	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A110619-17	Water	EPA 6020B	09/16/21 10:30	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A110619-18	Water	EPA 6020B	09/16/21 11:35	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A110619-19	Water	EPA 6020B	09/16/21 15:00	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A110619-20	Water	EPA 6020B	09/16/21 15:15	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1091171							
A110619-06	Soil	EPA 6020B	09/14/21 13:10	09/30/21 12:03	0.494g/50mL	0.5g/50mL	1.01
A110619-07	Soil	EPA 6020B	09/14/21 11:45	09/30/21 12:03	0.505g/50mL	0.5g/50mL	0.99
A110619-08	Soil	EPA 6020B	09/13/21 16:20	09/30/21 12:03	0.509g/50mL	0.5g/50mL	0.98
A110619-09	Soil	EPA 6020B	09/13/21 16:25	09/30/21 12:03	0.494g/50mL	0.5g/50mL	1.01
A110619-14	Soil	EPA 6020B	09/16/21 14:35	09/30/21 12:03	0.454g/50mL	0.5g/50mL	1.10
Batch: 21J1074							
A110619-11	Soil	EPA 6020B	09/14/21 17:00	10/28/21 13:47	0.509g/50mL	0.5g/50mL	0.98
A110619-13	Soil	EPA 6020B	09/15/21 16:30	10/28/21 13:47	0.514g/50mL	0.5g/50mL	0.97

Dissolved Metals by EPA 6020B (ICPMS)**Prep: Matrix Matched Direct Inject**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1091019							
A110619-15	Water	EPA 6020B (Diss)	09/16/21 17:25	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A110619-15RE1	Water	EPA 6020B (Diss)	09/16/21 17:25	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A110619-17	Water	EPA 6020B (Diss)	09/16/21 10:30	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A110619-17RE1	Water	EPA 6020B (Diss)	09/16/21 10:30	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A110619-18	Water	EPA 6020B (Diss)	09/16/21 11:35	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A110619-18RE1	Water	EPA 6020B (Diss)	09/16/21 11:35	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A110619-19	Water	EPA 6020B (Diss)	09/16/21 15:00	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A110619-19RE1	Water	EPA 6020B (Diss)	09/16/21 15:00	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A110619-20	Water	EPA 6020B (Diss)	09/16/21 15:15	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A110619-20RE1	Water	EPA 6020B (Diss)	09/16/21 15:15	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
Batch: 1091023							
A110619-16	Water	EPA 6020B (Diss)	09/16/21 17:55	09/27/21 16:10	45mL/50mL	45mL/50mL	1.00

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Genevieve Schutzius****Report ID:****A110619 - 11 16 21 1140****SAMPLE PREPARATION INFORMATION****Dissolved Metals by EPA 6020B (ICPMS)****Prep: Matrix Matched Direct Inject**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A110619-16RE1	Water	EPA 6020B (Diss)	09/16/21 17:55	09/27/21 16:10	45mL/50mL	45mL/50mL	1.00
A110619-16RE2	Water	EPA 6020B (Diss)	09/16/21 17:55	09/27/21 16:10	45mL/50mL	45mL/50mL	1.00

Total Hexavalent Chromium by Colorimetric Spectrophotometry**Prep: EPA 3060A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1090991							
A110619-06	Soil	EPA 7196A	09/14/21 13:10	09/27/21 08:32	2.5818g/100mL	2.5g/111mL	0.87
A110619-07	Soil	EPA 7196A	09/14/21 11:45	09/27/21 08:32	2.5703g/100mL	2.5g/111mL	0.88
A110619-08	Soil	EPA 7196A	09/13/21 16:20	09/27/21 08:32	2.5359g/100mL	2.5g/111mL	0.89
A110619-09	Soil	EPA 7196A	09/13/21 16:25	09/27/21 08:32	2.5299g/100mL	2.5g/111mL	0.89
A110619-14	Soil	EPA 7196A	09/16/21 14:35	09/27/21 08:32	2.585g/100mL	2.5g/111mL	0.87
Batch: 21K0136							
A110619-11	Soil	EPA 7196A	09/14/21 17:00	11/03/21 12:23	2.5052g/100mL	2.5g/111mL	0.90
A110619-13	Soil	EPA 7196A	09/15/21 16:30	11/03/21 12:23	2.5027g/100mL	2.5g/111mL	0.90

Demand Parameters**Prep: PSEP-5310B TOC**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1090883							
A110619-06RE2	Soil	SM 5310 B MOD	09/14/21 13:10	09/23/21 08:30			NA
A110619-07RE2	Soil	SM 5310 B MOD	09/14/21 11:45	09/23/21 08:30			NA
A110619-08RE1	Soil	SM 5310 B MOD	09/13/21 16:20	09/23/21 08:30			NA
A110619-09RE1	Soil	SM 5310 B MOD	09/13/21 16:25	09/23/21 08:30			NA
A110619-14RE1	Soil	SM 5310 B MOD	09/16/21 14:35	09/23/21 08:30			NA
Batch: 21J0826							
A110619-11	Soil	SM 5310 B MOD	09/14/21 17:00	10/22/21 13:19			NA
A110619-13	Soil	SM 5310 B MOD	09/15/21 16:30	10/22/21 13:19			NA

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C**Prep: Method Prep: Aq**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1091000							

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**
55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**
Project Number: **0171.067**
Project Manager: **Genevieve Schutzius****Report ID:**
A110619 - 11 16 21 1140**SAMPLE PREPARATION INFORMATION****Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C**Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A110619-15	Water	SM 5310 C	09/16/21 17:25	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00
A110619-16	Water	SM 5310 C	09/16/21 17:55	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00
A110619-17	Water	SM 5310 C	09/16/21 10:30	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00
A110619-18	Water	SM 5310 C	09/16/21 11:35	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00
A110619-19	Water	SM 5310 C	09/16/21 15:00	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00
A110619-20	Water	SM 5310 C	09/16/21 15:15	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00

Percent Dry WeightPrep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 1090769</u>							
A110619-06	Soil	EPA 8000D	09/14/21 13:10	09/21/21 09:10			NA
A110619-07	Soil	EPA 8000D	09/14/21 11:45	09/21/21 09:10			NA
A110619-08	Soil	EPA 8000D	09/13/21 16:20	09/21/21 09:10			NA
A110619-09	Soil	EPA 8000D	09/13/21 16:25	09/21/21 09:10			NA
A110619-10	Soil	EPA 8000D	09/14/21 17:00	09/21/21 09:10			NA
A110619-12	Soil	EPA 8000D	09/15/21 16:30	09/21/21 09:10			NA
A110619-14	Soil	EPA 8000D	09/16/21 14:35	09/21/21 09:10			NA
<u>Batch: 21J0863</u>							
A110619-11	Soil	EPA 8000D	09/14/21 17:00	10/25/21 07:49			NA
A110619-13	Soil	EPA 8000D	09/15/21 16:30	10/25/21 07:49			NA

Lab FiltrationPrep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 1090709</u>							
A110619-15	Water	NA	09/16/21 17:25	09/20/21 15:40	50mL/50mL	50mL/50mL	NA

Apex Laboratories

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**

Project Number: **0171.067**

Project Manager: **Genevieve Schutzius**

Report ID:

A110619 - 11 16 21 1140

Weck Laboratories, Inc.

SAMPLE PREPARATION INFORMATION

Hexavalent Chromium by IC

Prep: **NONE (LC)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: W111952							
A110619-15	Water	EPA 218.6	09/16/21 17:25	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A110619-16	Water	EPA 218.6	09/16/21 17:55	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A110619-17	Water	EPA 218.6	09/16/21 10:30	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A110619-18	Water	EPA 218.6	09/16/21 11:35	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A110619-19	Water	EPA 218.6	09/16/21 15:00	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A110619-20	Water	EPA 218.6	09/16/21 15:15	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00

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Philip Nerenberg

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Project: **Eatonville**

Project Number: **0171.067**

Project Manager: **Genevieve Schutzius**

Report ID:

A110619 - 11 16 21 1140

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- A-01** From grind batch 1090692.
- A-01a** Sample results are less than MDL and duplicate results have a hit greater than the MDL. See duplicate results.
- A-02** From grind batch 21J0337.
- A-03** From grind batch 21J0439.
- B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- C-07** Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
- COMP** Sample is a composite of discrete samples. See prep information for details.
- Cr6-02** Matrix Spike fails due to probable reducing conditions present in the sample. Sample results may be biased low.
- E** Estimated Value. The result is above the calibration range of the instrument.
- FILT1** Sample was lab filtered and acid preserved prior to analysis. See sample preparation section of report for date and time of filtration.
- FILT3** This is a laboratory filtration blank, associated with filtration batch 1090747. See Prep page of report for associated samples.
- H-01** This sample was analyzed outside the recommended holding time.
- H-02** This sample was extracted outside of the recommended holding time.
- H-06** This sample was received, or the analysis requested, outside the recommended holding time.
- H-13** Sample filtration (and preservation, if required) was performed >15 minutes after sample collection. Consult regulator or permit manager to determine the usability of data for intended purpose.
- ICV-01** Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- P-09** Due to weathering and/or the presence of an unknown mixture of PCB Congeners, the pattern does not match the standard used for calibration. Results are Estimated and based on the closest matching Aroclor.
- P-12** Result estimated due to the presence of multiple PCB Aroclors and/or PCB congeners not defined as Aroclors.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-18** Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.

Apex Laboratories

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GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Eatonville**

Project Number: **0171.067**

Project Manager: **Genevieve Schutzius**

Report ID:

A110619 - 11 16 21 1140

- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-24** The RPD for this spike and spike duplicate is above established control limits. Recoveries for both the spike and spike duplicate are within control limits.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-30** Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-52** Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +10%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +11%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +15%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +20%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +21%. The results are reported as Estimated Values.
- Q-54f** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +27%. The results are reported as Estimated Values.
- Q-54g** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
- Q-54h** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +40%. The results are reported as Estimated Values.
- Q-54i** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
- Q-54j** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +50%. The results are reported as Estimated Values.
- Q-54k** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +7%. The results are reported as Estimated Values.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**

Project Number: **0171.067**

Project Manager: **Genevieve Schutzius**

Report ID:

A110619 - 11 16 21 1140

- Q-54l** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
- Q-54m** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -4%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- Q-57** Compensation for background color and/or turbidity has been made by subtracting the absorbance of a second aliquot of sample to which all reagents except the color producing reagent have been added, in accordance with the method.
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

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Philip Nerenberg, Lab Director

Page 166 of 173



ANALYTICAL REPORT

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55 SW Yamhill St, Ste 300
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Report ID:

A110619 - 11 16 21 1140

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Eatonville**

Project Number: **0171.067**

Project Manager: **Genevieve Schutzius**

Report ID:

A110619 - 11 16 21 1140

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Eatonville**

Project Number: **0171.067**

Project Manager: **Genevieve Schutzius**

Report ID:

A110619 - 11 16 21 1140

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 200

Portland, OR 97209

Project: EatonvilleProject Number: 0171.067Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

APEX LABS		CHAIN OF CUSTODY		Lab # <u>A110619</u> COC <u>2 of 2</u>	
Company: <u>GSI</u>		Project Mgr: <u>Genevieve Schutzius / T. Bole</u>		Project #: <u>0171.067</u>	
Address: <u>55 SW Yamhill St Ste 200 PDX</u>		Project Name: <u>Eatonville LEI</u>		PO #	
Phone: <u>970.420.5869</u>		Email: <u>gschutzius@gsws.com</u>			
Sampled by: <u>GS, BJ</u>		ANALYSIS REQUEST			
Site Location: <u>OR</u> <u>CA</u> <u>AK</u> <u>ID</u>					
SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS
<u>EB01-0921</u>		<u>9/16/21</u>	<u>1325</u>	<u>SW</u>	<u>17</u>
<u>EB03-0921</u>		<u>9/16/21</u>	<u>1355</u>	<u>SW</u>	<u>14</u>
<u>SW04-0921</u>		<u>9/16/21</u>	<u>1030</u>	<u>SW</u>	<u>16</u>
<u>SW05-0921</u>		<u>9/16/21</u>	<u>1135</u>	<u>SW</u>	<u>16</u>
<u>SW06-0921</u>		<u>9/16/21</u>	<u>1500</u>	<u>SW</u>	<u>16</u>
<u>SW06-0921</u>		<u>9/16/21</u>	<u>1515</u>	<u>SW</u>	<u>16</u>
<u>TB01-0921</u>		<u>9/16/21</u>	<u>1345</u>	<u>SW</u>	<u>1</u>
SPECIAL INSTRUCTIONS: - limited PI for equip blank. EB03-0921 has one fewer bottle. (also no hexachrome / note noting) - note extra trip blank - decided not to use after labeling part-way					
Normal Turn Around Time (TAT) = 10 Business Days					
TAT Requested (circle) <u>1 Day</u> <u>2 Day</u> <u>3 Day</u> <u>4 DAY</u> <u>5 DAY</u> Other: <u>standard</u>					
SAMPLES ARE HELD FOR 30 DAYS					
RELINQUISHED BY:		RECEIVED BY:		RELINQUISHED BY:	
Signature: <u>[Signature]</u>		Signature: <u>[Signature]</u>		Signature: <u>[Signature]</u>	
Date: <u>9/17/21</u>		Date: <u>9/17/21</u>		Date: <u>9/17/21</u>	
Printed Name: <u>Genevieve Schutzius</u>		Printed Name: <u>Genevieve Schutzius</u>		Printed Name: <u>Genevieve Schutzius</u>	
Company: <u>GSI</u>		Company: <u>GSI</u>		Company: <u>GSI</u>	

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 0171.067Project Manager: Genevieve Schutzius

Report ID:

A110619 - 11 16 21 1140

APEX LABS COOLER RECEIPT FORM

Client: GSI Element WO#: A110619Project/Project #: Eatonville RI / 0171.067

Delivery Info:

Date/time received: 9/17/21 @ 1412 By: 81Delivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 9/17/21 @ 1415 By: 81Chain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.3</u>	<u>2.7</u>	<u>3.4</u>	<u>1.4</u>	<u>4.8</u>		
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>		
Temp. blanks? (Y/N)	<u>N</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>		
Ice type: (Gel/Real/Other)	<u>real</u>	<u>real</u>	<u>real</u>	<u>real</u>	<u>real</u>		
Condition:	<u>good</u>	<u>good</u>	<u>good</u>	<u>good</u>	<u>good</u>		

Cooler out of temp? (Y/N) Possible reason why: Yes ☒ No ☐Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 9/17/21 @ 15:18 By: 63All samples intact? Yes ☒ No ☐ Comments: Bottle labels/COCs agree? Yes ☐ No ☒ Comments: Ids vary on 5 MeOH vials for HA-01-0921. LOL reads 17 vials for EBD1-0921, we received 18.COC/container discrepancies form initiated? Yes ☒ No ☐ 9/17/21Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: Do VOA vials have visible headspace? Yes ☒ No ☐ NA ☐Comments: HS in 2 1/2 trip blanksWater samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐Comments: Additional information: KAC or bottles on EBD1 received 2 bottles for totals.13 conts. LOL reads 14 conts for EBD2, we received

Labeled by:

81

Witness:

KRS

Cooler Inspected by:

160Subsampled by: 81
Witnessed by: KRS

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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November 23, 2021

Vista Work Order No. 2109161

Mr. Josh Bale
GSI Water Solutions
55 SW Yamhill Street, Suite 300
Portland, OR 97204

Dear Mr. Bale,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on September 18, 2021 under your Project Name 'Eatonville RI'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at jfox@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Jamie Fox
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 2109161**Case Narrative****Sample Condition on Receipt:**

Four aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements. This report has been amended to revise the reporting format.

Analytical Notes:**EPA Method 1614**

These samples were extracted and analyzed for selected PBDE congeners by EPA Method 1614 using a ZB-5MS GC column.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. The concentrations of BDE-47 and BDE-99 were above the estimated detection limits in the Method Blank. The analyte BDE-99 was detected in sample "SW06-0921", and the analyte BDE-47 was detected in all of the samples. No other analytes were detected in the Method Blank above the method quantitation limit. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2109161-01	SW04-0921	16-Sep-21 10:30	18-Sep-21 09:35	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2109161-02	SW05-0921	16-Sep-21 11:35	18-Sep-21 09:35	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2109161-03	SW06-0921	16-Sep-21 15:00	18-Sep-21 09:35	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2109161-04	SW1006-0921	16-Sep-21 15:15	18-Sep-21 09:35	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L

ANALYTICAL RESULTS

Sample ID: Method Blank
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous

Laboratory Data

Lab Sample: B1I0137-BLK1
 QC Batch: B1I0137
 Sample Size: 1.00 L
 Date Extracted: 21-Sep-21
 Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.65			29-Sep-21 23:00	1
BDE-2	ND	4.91			29-Sep-21 23:00	1
BDE-3	ND	4.35			29-Sep-21 23:00	1
BDE-10	ND	0.345			29-Sep-21 23:00	1
BDE-7	ND	0.325			29-Sep-21 23:00	1
BDE-8/11	ND	0.242			29-Sep-21 23:00	1
BDE-12	ND	0.230			29-Sep-21 23:00	1
BDE-13	ND	0.215			29-Sep-21 23:00	1
BDE-15	ND	0.174			29-Sep-21 23:00	1
BDE-30	ND	0.289			29-Sep-21 23:00	1
BDE-32	ND	0.220			29-Sep-21 23:00	1
BDE-17	ND		0.231		29-Sep-21 23:00	1
BDE-25	ND	0.330			29-Sep-21 23:00	1
BDE-28/33	ND		0.911		29-Sep-21 23:00	1
BDE-35/21	ND	0.212			29-Sep-21 23:00	1
BDE-37	ND	0.181			29-Sep-21 23:00	1
BDE-75/51	ND	0.183			29-Sep-21 23:00	1
BDE-49	ND		0.559		29-Sep-21 23:00	1
BDE-71	ND	0.257			29-Sep-21 23:00	1
BDE-47	14.5			J	29-Sep-21 23:00	1
BDE-66	ND		0.607		29-Sep-21 23:00	1
BDE-77	ND	0.187			29-Sep-21 23:00	1
BDE-79	ND	0.163			29-Sep-21 23:00	1
BDE-100	ND		3.55		29-Sep-21 23:00	1
BDE-119/120	ND		1.43		29-Sep-21 23:00	1
BDE-99	16.5			J	29-Sep-21 23:00	1
BDE-116	ND	3.45			29-Sep-21 23:00	1
BDE-118	ND		0.433		29-Sep-21 23:00	1
BDE-85	ND		1.52		29-Sep-21 23:00	1
BDE-126	ND	1.34			29-Sep-21 23:00	1
BDE-105	ND	2.64			29-Sep-21 23:00	1
BDE-155	ND	0.377			29-Sep-21 23:00	1
BDE-128/154	ND		1.81		29-Sep-21 23:00	1
BDE-153	ND		2.81		29-Sep-21 23:00	1
BDE-139	ND		1.52		29-Sep-21 23:00	1
BDE-140	ND	0.763			29-Sep-21 23:00	1
BDE-138	ND	1.62			29-Sep-21 23:00	1
BDE-166	ND	2.84			29-Sep-21 23:00	1
BDE-148/156/169	ND	2.74			29-Sep-21 23:00	1
BDE-175	ND	1.51			29-Sep-21 23:00	1
BDE-184	ND	0.931			29-Sep-21 23:00	1
BDE-183/176	ND		2.23		29-Sep-21 23:00	1
BDE-191	ND	2.12			29-Sep-21 23:00	1
BDE-180	ND	2.12			29-Sep-21 23:00	1
BDE-181/177	ND	2.20			29-Sep-21 23:00	1
BDE-190/171	ND	2.12			29-Sep-21 23:00	1
BDE-201	ND	5.60			29-Sep-21 23:00	1
BDE-204	ND	5.09			29-Sep-21 23:00	1
BDE-197	ND	3.76			29-Sep-21 23:00	1
BDE-203/200	ND	6.84			29-Sep-21 23:00	1
BDE-205	ND	14.8			29-Sep-21 23:00	1

Sample ID: Method Blank
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous

Laboratory Data

Lab Sample: B1I0137-BLK1
 QC Batch: B1I0137
 Sample Size: 1.00 L
 Date Extracted: 21-Sep-21
 Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	5.32			29-Sep-21 23:00	1
BDE-207	ND	6.06			29-Sep-21 23:00	1
BDE-206	ND	9.66			29-Sep-21 23:00	1
BDE-209	ND	302			29-Sep-21 23:00	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	73.8	25 - 150		29-Sep-21 23:00	1
13C-BDE-15	IS	129	25 - 150		29-Sep-21 23:00	1
13C-BDE-28	IS	138	25 - 150		29-Sep-21 23:00	1
13C-BDE-47	IS	120	30 - 140		29-Sep-21 23:00	1
13C-BDE-77	IS	105	25 - 150		29-Sep-21 23:00	1
13C-BDE-100	IS	137	25 - 150		29-Sep-21 23:00	1
13C-BDE-99	IS	115	25 - 150		29-Sep-21 23:00	1
13C-BDE-118	IS	105	25 - 150		29-Sep-21 23:00	1
13C-BDE-155	IS	108	25 - 150		29-Sep-21 23:00	1
13C-BDE-154	IS	102	25 - 150		29-Sep-21 23:00	1
13C-BDE-153	IS	106	25 - 150		29-Sep-21 23:00	1
13C-BDE-138	IS	105	25 - 150		29-Sep-21 23:00	1
13C-BDE-169	IS	109	25 - 150		29-Sep-21 23:00	1
13C-BDE-183	IS	112	25 - 150		29-Sep-21 23:00	1
13C-BDE-180	IS	112	25 - 150		29-Sep-21 23:00	1
13C-BDE-204	IS	97.4	25 - 150		29-Sep-21 23:00	1
13C-BDE-197	IS	98.5	25 - 150		29-Sep-21 23:00	1
13C-BDE-205	IS	111	25 - 150		29-Sep-21 23:00	1
13C-BDE-207	IS	101	25 - 150		29-Sep-21 23:00	1
13C-BDE-206	IS	107	25 - 150		29-Sep-21 23:00	1
13C-BDE-209	IS	105	20 - 200		29-Sep-21 23:00	1
13C-BDE-126	CRS	113	30 - 135		29-Sep-21 23:00	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: OPR
EPA Method 1614

Client Data			Laboratory Data				
Name:	GSI Water Solutions		Lab Sample:	B110137-BS1		Date Extracted:	21-Sep-21 06:33
Project:	Eatonville RI		QC Batch:	B110137		Column:	ZB-5MS
Matrix:	Aqueous		Sample Size:	1.00 L			
Analyte	Amt Found (pg/L)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
BDE-1	535	500	107	50-150		29-Sep-21 18:59	1
BDE-2	594	500	119	50-150		29-Sep-21 18:59	1
BDE-3	542	500	108	50-150		29-Sep-21 18:59	1
BDE-10	401	500	80.3	50-150		29-Sep-21 18:59	1
BDE-7	400	500	80.0	50-150		29-Sep-21 18:59	1
BDE-8/11	1110	1000	111	50-150		29-Sep-21 18:59	1
BDE-12	431	500	86.2	50-150		29-Sep-21 18:59	1
BDE-13	546	500	109	50-150		29-Sep-21 18:59	1
BDE-15	514	500	103	50-150		29-Sep-21 18:59	1
BDE-30	380	500	76.1	50-150		29-Sep-21 18:59	1
BDE-32	531	500	106	50-150		29-Sep-21 18:59	1
BDE-17	523	500	105	50-150		29-Sep-21 18:59	1
BDE-25	513	500	103	50-150		29-Sep-21 18:59	1
BDE-28/33	1020	1000	102	50-150		29-Sep-21 18:59	1
BDE-35/21	528	500	106	50-150		29-Sep-21 18:59	1
BDE-37	465	500	93.0	50-150		29-Sep-21 18:59	1
BDE-75/51	2080	2000	104	50-150		29-Sep-21 18:59	1
BDE-49	1050	1000	105	50-150		29-Sep-21 18:59	1
BDE-71	1030	1000	103	50-150		29-Sep-21 18:59	1
BDE-47	989	1000	98.9	50-150	B	29-Sep-21 18:59	1
BDE-66	1110	1000	111	50-150		29-Sep-21 18:59	1
BDE-77	954	1000	95.4	50-150		29-Sep-21 18:59	1
BDE-79	879	1000	87.9	50-150		29-Sep-21 18:59	1
BDE-100	967	1000	96.7	50-150		29-Sep-21 18:59	1
BDE-119/120	1750	2000	87.4	50-150		29-Sep-21 18:59	1
BDE-99	970	1000	97.0	50-150	B	29-Sep-21 18:59	1
BDE-116	897	1000	89.7	50-150		29-Sep-21 18:59	1
BDE-118	967	1000	96.7	50-150		29-Sep-21 18:59	1
BDE-85	1060	1000	106	50-150		29-Sep-21 18:59	1
BDE-126	1010	1000	101	50-150		29-Sep-21 18:59	1
BDE-105	1040	1000	104	50-150		29-Sep-21 18:59	1
BDE-155	970	1000	97.0	50-150		29-Sep-21 18:59	1
BDE-128/154	1920	2000	96.2	50-150		29-Sep-21 18:59	1
BDE-153	948	1000	94.8	50-150		29-Sep-21 18:59	1
BDE-139	976	1000	97.6	50-150		29-Sep-21 18:59	1
BDE-140	1040	1000	104	50-150		29-Sep-21 18:59	1
BDE-138	951	1000	95.1	50-150		29-Sep-21 18:59	1
BDE-166	1030	1000	103	50-150		29-Sep-21 18:59	1
BDE-148/156/169	1890	2000	94.6	50-150		29-Sep-21 18:59	1
BDE-175	2000	2000	99.8	50-150		29-Sep-21 18:59	1
BDE-184	2170	2000	108	50-150		29-Sep-21 18:59	1
BDE-183/176	1920	2000	95.9	50-150		29-Sep-21 18:59	1
BDE-191	2040	2000	102	50-150		29-Sep-21 18:59	1
BDE-180	1930	2000	96.4	50-150		29-Sep-21 18:59	1
BDE-181/177	2030	2000	101	50-150		29-Sep-21 18:59	1
BDE-190/171	3770	4000	94.2	50-150		29-Sep-21 18:59	1

Sample ID: OPR
EPA Method 1614

Client Data			Laboratory Data				
Name:	GSI Water Solutions		Lab Sample:	B110137-BS1		Date Extracted:	21-Sep-21 06:33
Project:	Eatonville RI		QC Batch:	B110137		Column:	ZB-5MS
Matrix:	Aqueous		Sample Size:	1.00 L			
Analyte	Amt Found (pg/L)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
BDE-201	2070	2000	103	50-150		29-Sep-21 18:59	1
BDE-204	1880	2000	93.9	50-150		29-Sep-21 18:59	1
BDE-197	1870	2000	93.4	50-150		29-Sep-21 18:59	1
BDE-203/200	2180	2000	109	50-150		29-Sep-21 18:59	1
BDE-205	1880	2000	94.0	50-150		29-Sep-21 18:59	1
BDE-208	4990	5000	99.9	50-150		29-Sep-21 18:59	1
BDE-207	4890	5000	97.8	50-150		29-Sep-21 18:59	1
BDE-206	4960	5000	99.1	50-150		29-Sep-21 18:59	1
BDE-209	5170	5000	103	50-150		29-Sep-21 18:59	1
Labeled Standards	Type		% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS		60.1	30-140		29-Sep-21 18:59	1
13C-BDE-15	IS		107	30-140		29-Sep-21 18:59	1
13C-BDE-28	IS		122	30-140		29-Sep-21 18:59	1
13C-BDE-47	IS		103	30-140		29-Sep-21 18:59	1
13C-BDE-77	IS		90.4	30-140		29-Sep-21 18:59	1
13C-BDE-100	IS		120	30-140		29-Sep-21 18:59	1
13C-BDE-99	IS		98.9	30-140		29-Sep-21 18:59	1
13C-BDE-118	IS		86.5	30-140		29-Sep-21 18:59	1
13C-BDE-155	IS		92.2	30-140		29-Sep-21 18:59	1
13C-BDE-154	IS		89.0	30-140		29-Sep-21 18:59	1
13C-BDE-153	IS		89.2	30-140		29-Sep-21 18:59	1
13C-BDE-138	IS		90.4	30-140		29-Sep-21 18:59	1
13C-BDE-169	IS		94.2	30-140		29-Sep-21 18:59	1
13C-BDE-183	IS		91.7	30-140		29-Sep-21 18:59	1
13C-BDE-180	IS		96.8	30-140		29-Sep-21 18:59	1
13C-BDE-204	IS		91.4	30-140		29-Sep-21 18:59	1
13C-BDE-197	IS		80.1	30-140		29-Sep-21 18:59	1
13C-BDE-205	IS		92.3	20-200		29-Sep-21 18:59	1
13C-BDE-207	IS		87.0	30-140		29-Sep-21 18:59	1
13C-BDE-206	IS		93.5	30-140		29-Sep-21 18:59	1
13C-BDE-209	IS		94.2	20-200		29-Sep-21 18:59	1
13C-BDE-126	CRS		100	40-125		29-Sep-21 18:59	1

Sample ID: SW04-0921
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous
 Date Collected: 16-Sep-21 10:30

Laboratory Data

Lab Sample: 2109161-01
 QC Batch: B1I0137
 Sample Size: 0.996 L

Date Received: 18-Sep-21 09:35
 Date Extracted: 21-Sep-21
 Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.23			01-Oct-21 03:41	1
BDE-2	ND	4.64			01-Oct-21 03:41	1
BDE-3	ND	4.11			01-Oct-21 03:41	1
BDE-10	ND	0.420			01-Oct-21 03:41	1
BDE-7	ND	0.396			01-Oct-21 03:41	1
BDE-8/11	ND	0.294			01-Oct-21 03:41	1
BDE-12	ND	0.280			01-Oct-21 03:41	1
BDE-13	ND	0.262			01-Oct-21 03:41	1
BDE-15	ND		0.252		01-Oct-21 03:41	1
BDE-30	ND	0.279			01-Oct-21 03:41	1
BDE-32	ND	0.213			01-Oct-21 03:41	1
BDE-17	0.511			J	01-Oct-21 03:41	1
BDE-25	ND	0.319			01-Oct-21 03:41	1
BDE-28/33	ND		1.39		01-Oct-21 03:41	1
BDE-35/21	ND	0.204			01-Oct-21 03:41	1
BDE-37	ND	0.175			01-Oct-21 03:41	1
BDE-75/51	ND	0.317			01-Oct-21 03:41	1
BDE-49	ND	0.422			01-Oct-21 03:41	1
BDE-71	ND	0.444			01-Oct-21 03:41	1
BDE-47	15.3			J, B	01-Oct-21 03:41	1
BDE-66	ND	0.575			01-Oct-21 03:41	1
BDE-77	ND	0.321			01-Oct-21 03:41	1
BDE-79	ND	0.282			01-Oct-21 03:41	1
BDE-100	1.40			J	01-Oct-21 03:41	1
BDE-119/120	ND		0.984		01-Oct-21 03:41	1
BDE-99	ND		4.18		01-Oct-21 03:41	1
BDE-116	ND	4.82			01-Oct-21 03:41	1
BDE-118	ND	2.49			01-Oct-21 03:41	1
BDE-85	ND	2.90			01-Oct-21 03:41	1
BDE-126	ND	1.87			01-Oct-21 03:41	1
BDE-105	ND	3.68			01-Oct-21 03:41	1
BDE-155	ND	0.569			01-Oct-21 03:41	1
BDE-128/154	ND	0.962			01-Oct-21 03:41	1
BDE-153	ND		1.26		01-Oct-21 03:41	1
BDE-139	ND		0.864		01-Oct-21 03:41	1
BDE-140	ND	1.26			01-Oct-21 03:41	1
BDE-138	ND	1.66			01-Oct-21 03:41	1
BDE-166	ND	2.92			01-Oct-21 03:41	1
BDE-148/156/169	ND	2.85			01-Oct-21 03:41	1
BDE-175	ND	0.833			01-Oct-21 03:41	1
BDE-184	ND	0.512			01-Oct-21 03:41	1
BDE-183/176	2.57			J	01-Oct-21 03:41	1
BDE-191	ND	3.11			01-Oct-21 03:41	1
BDE-180	ND	3.10			01-Oct-21 03:41	1
BDE-181/177	ND	3.23			01-Oct-21 03:41	1
BDE-190/171	ND	3.10			01-Oct-21 03:41	1
BDE-201	ND	5.87			01-Oct-21 03:41	1
BDE-204	2.82			J	01-Oct-21 03:41	1
BDE-197	ND	4.14			01-Oct-21 03:41	1
BDE-203/200	ND	7.54			01-Oct-21 03:41	1
BDE-205	ND	13.3			01-Oct-21 03:41	1

Sample ID: SW04-0921
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous
 Date Collected: 16-Sep-21 10:30

Laboratory Data

Lab Sample: 2109161-01 Date Received: 18-Sep-21 09:35
 QC Batch: B1I0137 Date Extracted: 21-Sep-21
 Sample Size: 0.996 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	8.39			J	01-Oct-21 03:41	1
BDE-207	8.00			J	01-Oct-21 03:41	1
BDE-206	ND	10.4			01-Oct-21 03:41	1
BDE-209	ND	179			01-Oct-21 03:41	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	45.4	25 - 150		01-Oct-21 03:41	1
13C-BDE-15	IS	90.7	25 - 150		01-Oct-21 03:41	1
13C-BDE-28	IS	102	25 - 150		01-Oct-21 03:41	1
13C-BDE-47	IS	94.4	30 - 140		01-Oct-21 03:41	1
13C-BDE-77	IS	81.2	25 - 150		01-Oct-21 03:41	1
13C-BDE-100	IS	120	25 - 150		01-Oct-21 03:41	1
13C-BDE-99	IS	99.2	25 - 150		01-Oct-21 03:41	1
13C-BDE-118	IS	88.3	25 - 150		01-Oct-21 03:41	1
13C-BDE-155	IS	91.8	25 - 150		01-Oct-21 03:41	1
13C-BDE-154	IS	85.5	25 - 150		01-Oct-21 03:41	1
13C-BDE-153	IS	86.9	25 - 150		01-Oct-21 03:41	1
13C-BDE-138	IS	91.0	25 - 150		01-Oct-21 03:41	1
13C-BDE-169	IS	92.5	25 - 150		01-Oct-21 03:41	1
13C-BDE-183	IS	90.7	25 - 150		01-Oct-21 03:41	1
13C-BDE-180	IS	92.3	25 - 150		01-Oct-21 03:41	1
13C-BDE-204	IS	82.0	25 - 150		01-Oct-21 03:41	1
13C-BDE-197	IS	73.8	25 - 150		01-Oct-21 03:41	1
13C-BDE-205	IS	95.4	25 - 150		01-Oct-21 03:41	1
13C-BDE-207	IS	84.6	25 - 150		01-Oct-21 03:41	1
13C-BDE-206	IS	92.9	25 - 150		01-Oct-21 03:41	1
13C-BDE-209	IS	127	20 - 200		01-Oct-21 03:41	1
13C-BDE-126	CRS	102	30 - 135		01-Oct-21 03:41	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW05-0921
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous
 Date Collected: 16-Sep-21 11:35

Laboratory Data

Lab Sample: 2109161-02
 QC Batch: B1I0137
 Sample Size: 1.01 L
 Date Received: 18-Sep-21 09:35
 Date Extracted: 21-Sep-21
 Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	6.30			01-Oct-21 04:41	1
BDE-2	ND	4.04			01-Oct-21 04:41	1
BDE-3	ND	3.58			01-Oct-21 04:41	1
BDE-10	ND	0.330			01-Oct-21 04:41	1
BDE-7	ND	0.311			01-Oct-21 04:41	1
BDE-8/11	ND	0.231			01-Oct-21 04:41	1
BDE-12	ND	0.220			01-Oct-21 04:41	1
BDE-13	ND	0.205			01-Oct-21 04:41	1
BDE-15	ND		0.714		01-Oct-21 04:41	1
BDE-30	ND	0.287			01-Oct-21 04:41	1
BDE-32	ND	0.219			01-Oct-21 04:41	1
BDE-17	ND		0.222		01-Oct-21 04:41	1
BDE-25	ND	0.328			01-Oct-21 04:41	1
BDE-28/33	ND		1.54		01-Oct-21 04:41	1
BDE-35/21	ND	0.210			01-Oct-21 04:41	1
BDE-37	ND	0.180			01-Oct-21 04:41	1
BDE-75/51	ND	0.172			01-Oct-21 04:41	1
BDE-49	ND	0.229			01-Oct-21 04:41	1
BDE-71	ND	0.241			01-Oct-21 04:41	1
BDE-47	16.4			J, B	01-Oct-21 04:41	1
BDE-66	ND	0.311			01-Oct-21 04:41	1
BDE-77	ND	0.174			01-Oct-21 04:41	1
BDE-79	ND	0.153			01-Oct-21 04:41	1
BDE-100	ND		1.13		01-Oct-21 04:41	1
BDE-119/120	ND	2.29			01-Oct-21 04:41	1
BDE-99	ND		4.93		01-Oct-21 04:41	1
BDE-116	ND	5.17			01-Oct-21 04:41	1
BDE-118	ND	2.66			01-Oct-21 04:41	1
BDE-85	ND	3.11			01-Oct-21 04:41	1
BDE-126	ND	2.01			01-Oct-21 04:41	1
BDE-105	ND	3.95			01-Oct-21 04:41	1
BDE-155	ND	0.373			01-Oct-21 04:41	1
BDE-128/154	ND		0.320		01-Oct-21 04:41	1
BDE-153	ND	0.757			01-Oct-21 04:41	1
BDE-139	ND	0.710			01-Oct-21 04:41	1
BDE-140	ND	0.775			01-Oct-21 04:41	1
BDE-138	ND	1.21			01-Oct-21 04:41	1
BDE-166	ND	2.13			01-Oct-21 04:41	1
BDE-148/156/169	ND	2.07			01-Oct-21 04:41	1
BDE-175	ND	0.884			01-Oct-21 04:41	1
BDE-184	ND	0.544			01-Oct-21 04:41	1
BDE-183/176	ND	0.766			01-Oct-21 04:41	1
BDE-191	ND	1.80			01-Oct-21 04:41	1
BDE-180	ND	1.80			01-Oct-21 04:41	1
BDE-181/177	ND	1.87			01-Oct-21 04:41	1
BDE-190/171	ND	1.80			01-Oct-21 04:41	1
BDE-201	ND	4.34			01-Oct-21 04:41	1
BDE-204	ND	3.95			01-Oct-21 04:41	1
BDE-197	ND		2.21		01-Oct-21 04:41	1
BDE-203/200	ND	5.18			01-Oct-21 04:41	1
BDE-205	ND	10.4			01-Oct-21 04:41	1

Sample ID: SW05-0921
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous
 Date Collected: 16-Sep-21 11:35

Laboratory Data

Lab Sample: 2109161-02 Date Received: 18-Sep-21 09:35
 QC Batch: B1I0137 Date Extracted: 21-Sep-21
 Sample Size: 1.01 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	8.02			01-Oct-21 04:41	1
BDE-207	ND	9.14			01-Oct-21 04:41	1
BDE-206	ND	14.8			01-Oct-21 04:41	1
BDE-209	ND	170			01-Oct-21 04:41	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	54.9	25 - 150		01-Oct-21 04:41	1
13C-BDE-15	IS	106	25 - 150		01-Oct-21 04:41	1
13C-BDE-28	IS	118	25 - 150		01-Oct-21 04:41	1
13C-BDE-47	IS	103	30 - 140		01-Oct-21 04:41	1
13C-BDE-77	IS	90.2	25 - 150		01-Oct-21 04:41	1
13C-BDE-100	IS	127	25 - 150		01-Oct-21 04:41	1
13C-BDE-99	IS	106	25 - 150		01-Oct-21 04:41	1
13C-BDE-118	IS	92.5	25 - 150		01-Oct-21 04:41	1
13C-BDE-155	IS	99.2	25 - 150		01-Oct-21 04:41	1
13C-BDE-154	IS	94.3	25 - 150		01-Oct-21 04:41	1
13C-BDE-153	IS	95.0	25 - 150		01-Oct-21 04:41	1
13C-BDE-138	IS	98.1	25 - 150		01-Oct-21 04:41	1
13C-BDE-169	IS	100	25 - 150		01-Oct-21 04:41	1
13C-BDE-183	IS	101	25 - 150		01-Oct-21 04:41	1
13C-BDE-180	IS	102	25 - 150		01-Oct-21 04:41	1
13C-BDE-204	IS	91.8	25 - 150		01-Oct-21 04:41	1
13C-BDE-197	IS	78.8	25 - 150		01-Oct-21 04:41	1
13C-BDE-205	IS	103	25 - 150		01-Oct-21 04:41	1
13C-BDE-207	IS	91.9	25 - 150		01-Oct-21 04:41	1
13C-BDE-206	IS	96.8	25 - 150		01-Oct-21 04:41	1
13C-BDE-209	IS	125	20 - 200		01-Oct-21 04:41	1
13C-BDE-126	CRS	108	30 - 135		01-Oct-21 04:41	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW06-0921
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous
 Date Collected: 16-Sep-21 15:00

Laboratory Data

Lab Sample: 2109161-03
 QC Batch: B1I0137
 Sample Size: 0.998 L

Date Received: 18-Sep-21 09:35
 Date Extracted: 21-Sep-21
 Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	5.95			01-Oct-21 05:40	1
BDE-2	ND	3.82			01-Oct-21 05:40	1
BDE-3	ND	3.38			01-Oct-21 05:40	1
BDE-10	ND	0.326			01-Oct-21 05:40	1
BDE-7	ND	0.308			01-Oct-21 05:40	1
BDE-8/11	ND	0.228			01-Oct-21 05:40	1
BDE-12	ND	0.218			01-Oct-21 05:40	1
BDE-13	ND	0.203			01-Oct-21 05:40	1
BDE-15	ND	0.165			01-Oct-21 05:40	1
BDE-30	ND	0.234			01-Oct-21 05:40	1
BDE-32	ND	0.178			01-Oct-21 05:40	1
BDE-17	0.337			J	01-Oct-21 05:40	1
BDE-25	ND	0.267			01-Oct-21 05:40	1
BDE-28/33	ND		0.813		01-Oct-21 05:40	1
BDE-35/21	ND	0.171			01-Oct-21 05:40	1
BDE-37	ND	0.146			01-Oct-21 05:40	1
BDE-75/51	ND	0.130			01-Oct-21 05:40	1
BDE-49	ND	0.172			01-Oct-21 05:40	1
BDE-71	ND	0.181			01-Oct-21 05:40	1
BDE-47	15.1			J, B	01-Oct-21 05:40	1
BDE-66	ND	0.227			01-Oct-21 05:40	1
BDE-77	ND	0.126			01-Oct-21 05:40	1
BDE-79	ND	0.115			01-Oct-21 05:40	1
BDE-100	1.31			J	01-Oct-21 05:40	1
BDE-119/120	ND		0.649		01-Oct-21 05:40	1
BDE-99	7.23			J, B	01-Oct-21 05:40	1
BDE-116	ND	5.89			01-Oct-21 05:40	1
BDE-118	ND	3.04			01-Oct-21 05:40	1
BDE-85	ND	3.54			01-Oct-21 05:40	1
BDE-126	ND	2.29			01-Oct-21 05:40	1
BDE-105	ND	4.51			01-Oct-21 05:40	1
BDE-155	ND	0.280			01-Oct-21 05:40	1
BDE-128/154	2.47			J	01-Oct-21 05:40	1
BDE-153	5.93			J	01-Oct-21 05:40	1
BDE-139	ND		1.65		01-Oct-21 05:40	1
BDE-140	ND	0.571			01-Oct-21 05:40	1
BDE-138	ND		0.380		01-Oct-21 05:40	1
BDE-166	ND	2.32			01-Oct-21 05:40	1
BDE-148/156/169	ND	2.37			01-Oct-21 05:40	1
BDE-175	ND	0.634			01-Oct-21 05:40	1
BDE-184	ND	0.390			01-Oct-21 05:40	1
BDE-183/176	ND		2.67		01-Oct-21 05:40	1
BDE-191	ND	1.53			01-Oct-21 05:40	1
BDE-180	ND	1.53			01-Oct-21 05:40	1
BDE-181/177	ND	1.59			01-Oct-21 05:40	1
BDE-190/171	ND	1.53			01-Oct-21 05:40	1
BDE-201	ND	2.89			01-Oct-21 05:40	1
BDE-204	ND	2.63			01-Oct-21 05:40	1
BDE-197	ND	1.77			01-Oct-21 05:40	1
BDE-203/200	ND	3.22			01-Oct-21 05:40	1
BDE-205	ND	6.82			01-Oct-21 05:40	1

Sample ID: SW06-0921
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous
 Date Collected: 16-Sep-21 15:00

Laboratory Data

Lab Sample: 2109161-03 Date Received: 18-Sep-21 09:35
 QC Batch: B1I0137 Date Extracted: 21-Sep-21
 Sample Size: 0.998 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	4.35			01-Oct-21 05:40	1
BDE-207	ND	4.95			01-Oct-21 05:40	1
BDE-206	ND	8.14			01-Oct-21 05:40	1
BDE-209	ND	145			01-Oct-21 05:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	37.1	25 - 150		01-Oct-21 05:40	1
13C-BDE-15	IS	84.9	25 - 150		01-Oct-21 05:40	1
13C-BDE-28	IS	102	25 - 150		01-Oct-21 05:40	1
13C-BDE-47	IS	92.0	30 - 140		01-Oct-21 05:40	1
13C-BDE-77	IS	83.9	25 - 150		01-Oct-21 05:40	1
13C-BDE-100	IS	111	25 - 150		01-Oct-21 05:40	1
13C-BDE-99	IS	94.6	25 - 150		01-Oct-21 05:40	1
13C-BDE-118	IS	84.7	25 - 150		01-Oct-21 05:40	1
13C-BDE-155	IS	86.5	25 - 150		01-Oct-21 05:40	1
13C-BDE-154	IS	83.7	25 - 150		01-Oct-21 05:40	1
13C-BDE-153	IS	86.4	25 - 150		01-Oct-21 05:40	1
13C-BDE-138	IS	89.5	25 - 150		01-Oct-21 05:40	1
13C-BDE-169	IS	91.7	25 - 150		01-Oct-21 05:40	1
13C-BDE-183	IS	89.8	25 - 150		01-Oct-21 05:40	1
13C-BDE-180	IS	96.2	25 - 150		01-Oct-21 05:40	1
13C-BDE-204	IS	82.4	25 - 150		01-Oct-21 05:40	1
13C-BDE-197	IS	77.1	25 - 150		01-Oct-21 05:40	1
13C-BDE-205	IS	91.0	25 - 150		01-Oct-21 05:40	1
13C-BDE-207	IS	86.2	25 - 150		01-Oct-21 05:40	1
13C-BDE-206	IS	88.8	25 - 150		01-Oct-21 05:40	1
13C-BDE-209	IS	109	20 - 200		01-Oct-21 05:40	1
13C-BDE-126	CRS	105	30 - 135		01-Oct-21 05:40	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW1006-0921
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous
 Date Collected: 16-Sep-21 15:15

Laboratory Data

Lab Sample: 2109161-04
 QC Batch: B1I0137
 Sample Size: 1.01 L

Date Received: 18-Sep-21 09:35
 Date Extracted: 21-Sep-21
 Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.29			01-Oct-21 06:40	1
BDE-2	ND	4.68			01-Oct-21 06:40	1
BDE-3	ND	4.15			01-Oct-21 06:40	1
BDE-10	ND	0.341			01-Oct-21 06:40	1
BDE-7	ND	0.322			01-Oct-21 06:40	1
BDE-8/11	ND	0.239			01-Oct-21 06:40	1
BDE-12	ND	0.228			01-Oct-21 06:40	1
BDE-13	ND	0.213			01-Oct-21 06:40	1
BDE-15	ND	0.172			01-Oct-21 06:40	1
BDE-30	ND	0.224			01-Oct-21 06:40	1
BDE-32	ND	0.170			01-Oct-21 06:40	1
BDE-17	ND		0.439		01-Oct-21 06:40	1
BDE-25	ND	0.255			01-Oct-21 06:40	1
BDE-28/33	ND		1.07		01-Oct-21 06:40	1
BDE-35/21	ND	0.164			01-Oct-21 06:40	1
BDE-37	ND	0.140			01-Oct-21 06:40	1
BDE-75/51	ND	0.207			01-Oct-21 06:40	1
BDE-49	ND	0.276			01-Oct-21 06:40	1
BDE-71	ND	0.290			01-Oct-21 06:40	1
BDE-47	15.8			J, B	01-Oct-21 06:40	1
BDE-66	ND	0.382			01-Oct-21 06:40	1
BDE-77	ND	0.213			01-Oct-21 06:40	1
BDE-79	ND	0.184			01-Oct-21 06:40	1
BDE-100	0.978			J	01-Oct-21 06:40	1
BDE-119/120	ND	1.59			01-Oct-21 06:40	1
BDE-99	ND		3.10		01-Oct-21 06:40	1
BDE-116	ND	3.47			01-Oct-21 06:40	1
BDE-118	ND	1.79			01-Oct-21 06:40	1
BDE-85	ND	2.09			01-Oct-21 06:40	1
BDE-126	ND	1.35			01-Oct-21 06:40	1
BDE-105	ND	2.66			01-Oct-21 06:40	1
BDE-155	ND	0.571			01-Oct-21 06:40	1
BDE-128/154	ND	0.928			01-Oct-21 06:40	1
BDE-153	ND		1.13		01-Oct-21 06:40	1
BDE-139	ND	1.08			01-Oct-21 06:40	1
BDE-140	ND	1.18			01-Oct-21 06:40	1
BDE-138	ND	1.59			01-Oct-21 06:40	1
BDE-166	ND	2.79			01-Oct-21 06:40	1
BDE-148/156/169	ND	2.84			01-Oct-21 06:40	1
BDE-175	ND	1.08			01-Oct-21 06:40	1
BDE-184	ND	0.665			01-Oct-21 06:40	1
BDE-183/176	ND		2.17		01-Oct-21 06:40	1
BDE-191	ND	2.27			01-Oct-21 06:40	1
BDE-180	ND	2.26			01-Oct-21 06:40	1
BDE-181/177	ND	2.36			01-Oct-21 06:40	1
BDE-190/171	ND	2.26			01-Oct-21 06:40	1
BDE-201	ND	5.62			01-Oct-21 06:40	1
BDE-204	ND	5.12			01-Oct-21 06:40	1
BDE-197	ND	3.87			01-Oct-21 06:40	1
BDE-203/200	ND	7.05			01-Oct-21 06:40	1
BDE-205	ND	14.5			01-Oct-21 06:40	1

Sample ID: SW1006-0921
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville RI
 Matrix: Aqueous
 Date Collected: 16-Sep-21 15:15

Laboratory Data

Lab Sample: 2109161-04 Date Received: 18-Sep-21 09:35
 QC Batch: B1I0137 Date Extracted: 21-Sep-21
 Sample Size: 1.01 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	6.30			01-Oct-21 06:40	1
BDE-207	ND	7.18			01-Oct-21 06:40	1
BDE-206	ND	10.3			01-Oct-21 06:40	1
BDE-209	ND	198			01-Oct-21 06:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	56.0	25 - 150		01-Oct-21 06:40	1
13C-BDE-15	IS	111	25 - 150		01-Oct-21 06:40	1
13C-BDE-28	IS	122	25 - 150		01-Oct-21 06:40	1
13C-BDE-47	IS	105	30 - 140		01-Oct-21 06:40	1
13C-BDE-77	IS	93.7	25 - 150		01-Oct-21 06:40	1
13C-BDE-100	IS	138	25 - 150		01-Oct-21 06:40	1
13C-BDE-99	IS	116	25 - 150		01-Oct-21 06:40	1
13C-BDE-118	IS	105	25 - 150		01-Oct-21 06:40	1
13C-BDE-155	IS	107	25 - 150		01-Oct-21 06:40	1
13C-BDE-154	IS	101	25 - 150		01-Oct-21 06:40	1
13C-BDE-153	IS	101	25 - 150		01-Oct-21 06:40	1
13C-BDE-138	IS	101	25 - 150		01-Oct-21 06:40	1
13C-BDE-169	IS	99.6	25 - 150		01-Oct-21 06:40	1
13C-BDE-183	IS	106	25 - 150		01-Oct-21 06:40	1
13C-BDE-180	IS	104	25 - 150		01-Oct-21 06:40	1
13C-BDE-204	IS	93.9	25 - 150		01-Oct-21 06:40	1
13C-BDE-197	IS	87.8	25 - 150		01-Oct-21 06:40	1
13C-BDE-205	IS	106	25 - 150		01-Oct-21 06:40	1
13C-BDE-207	IS	97.2	25 - 150		01-Oct-21 06:40	1
13C-BDE-206	IS	103	25 - 150		01-Oct-21 06:40	1
13C-BDE-209	IS	117	20 - 200		01-Oct-21 06:40	1
13C-BDE-126	CRS	109	30 - 135		01-Oct-21 06:40	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-26
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1980678
New Hampshire Environmental Accreditation Program	207720
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-016
Pennsylvania Department of Environmental Protection	017
Texas Commission on Environmental Quality	T104704189-21-12
Vermont Department of Health	VT-4042
Virginia Department of General Services	10769
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulfonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A



For Laboratory Use Only

Laboratory Project ID: 210961 Temp: 2.3 °C
Storage ID: Wk-2 Storage Secured: Yes ☐ No ☐

TAT Standard: ☒ 21 days
(check one): Rush (surcharge may apply)
☐ 14 days ☐ 7 days Specify:

Ben Johnson
Glenmore Schuteus
(name)

Project ID: Eatonville RI P.O.#: 0171.067.003 Sampler: _____

Invoice to: Name		Company	City	State	Ph#	Fax#
Address		Address				

Genevieve Schuttnig
GST
35 SW Yamhill St.
Ste. 200
Portland OR 97042-0589

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
--	------	------	--	------	------

Genevieve Schutzhaus
9/17/31 1030
Justin Brisson Austin B...
22/8/61 0035

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

Method of Shipment:

(916) 673-1520 • Fax (916) 673-0106

ATTN: Tracking No.:

Tracking No.:

[illegible]

Special Instructions/Comments:

Name: Genevieve Schutten

Company: GSF

Address: 55 SW Yamhill St. Ste. 300

City: Fort kind State: OR Zip: 97203

Phone: 970.470.4540 Fax: -

Email: acschutz@acslaw.com

Container Types: A = 1 Liter Amber, G = Glass Jar

Bottle Preservation Type: TZ = Trizma.

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment.

SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other.

Page: 1 of 1

Sample Log-In Checklist

 Page # 1 of 1

 Vista Work Order #: 2109161

 TAT 57d

Samples Arrival:	Date/Time <u>09/18/21 0935</u>		Initials: <u>(Signature)</u>		Location: <u>WR-2</u>	
					Shelf/Rack: <u>N/A</u>	
Delivered By:	<u>FedEx</u>	UPS	On Trac	GLS	DHL	Hand Delivered
Preservation:	<u>Ice</u>	Blue Ice		Techni Ice	Dry Ice	None
Temp °C: <u>2.4</u>	(uncorrected)	Probe used: Y / <u>N</u>			Thermometer ID: <u>IR-3</u>	
Temp °C: <u>2.3</u>	(corrected)					

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>		
Airbill <u>—</u> Trk # <u>283822075555</u>	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Shipping Container	Vista	<u>Client</u>	Retain
		<u>Return</u>	Dispose
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>		
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>		
Holding Time Acceptable?	<input checked="" type="checkbox"/>		

Logged In:	Date/Time <u>09/20/21 12:12</u>	Initials: <u>IM</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>B-3, C-3</u>
COC Anomaly/Sample Acceptance Form completed?			<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

Comments:

CoC/Label Reconciliation Report WO# 2109161

Lab Number	CoC Sample ID	Sample Alias	Sample Date/Time	Container	Base Matrix	Sample Comments
2109161-01	A SW04-0921	Base #1	16-Sep-21 10:30	Amber Glass NM Bottle, 1L	Aqueous	
2109161-01	B SW04-0921	Base #1	16-Sep-21 10:30	Amber Glass NM Bottle, 1L	Aqueous	
2109161-02	A SW05-0921	Base #2	16-Sep-21 11:35	Amber Glass NM Bottle, 1L	Aqueous	
2109161-02	B SW05-0921	Base #2	16-Sep-21 11:35	Amber Glass NM Bottle, 1L	Aqueous	
2109161-03	A SW06-0921	Spring #1	16-Sep-21 15:00	Amber Glass NM Bottle, 1L	Aqueous	
2109161-03	B SW06-0921	Spring #1	16-Sep-21 15:00	Amber Glass NM Bottle, 1L	Aqueous	
2109161-04	A SW1006-0921	Spring #2	16-Sep-21 15:15	Amber Glass NM Bottle, 1L	Aqueous	
2109161-04	B SW1006-0921	Spring #2	16-Sep-21 15:15	Amber Glass NM Bottle, 1L	Aqueous	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA	Comments:
Sample Container Intact?				
Sample Custody Seals Intact?				
Adequate Sample Volume?				
Container Type Appropriate for Analysis(es)				

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None Other

Verified by/Date: WJ 09/20/21



Fremont
Analytical

3600 Fremont Ave. N.

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

Apex Laboratories

Philip Nerenberg

6700 SW Sandburg St

Tigard, OR 97223

RE: A1K0892

Work Order Number: 2111482

December 09, 2021

Attention Philip Nerenberg:

Fremont Analytical, Inc. received 7 sample(s) on 11/23/2021 for the analyses presented in the following report.

Extractable Petroleum Hydrocarbons by NWEPH

Volatile Petroleum Hydrocarbons by NWVPH

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CC:
Sub Data

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Revision v1

www.fremontanalytical.com

CLIENT: Apex Laboratories
Project: A1K0892
Work Order: 2111482

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2111482-001	GW-PZ-01-1121	11/17/2021 5:40 PM	11/23/2021 10:43 AM
2111482-002	GW-PZ-02-1121	11/17/2021 3:35 PM	11/23/2021 10:43 AM
2111482-003	GW-PZ-03-1121	11/17/2021 12:05 PM	11/23/2021 10:43 AM
2111482-004	GW-PZ-04-1121	11/17/2021 10:32 AM	11/23/2021 10:43 AM
2111482-005	GW-Dup-1-1121	11/17/2021 3:40 PM	11/23/2021 10:43 AM
2111482-006	GW-Equipment-Blank-1121	11/17/2021 6:10 PM	11/23/2021 10:43 AM
2111482-007	GW-Trip-Blank-1121	11/17/2021 8:00 AM	11/23/2021 10:43 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Apex Laboratories
Project: A1K0892

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Rev 1: Results have been expressed to the MDL per client request. Detections between the MDL and PQL will be qualified with a J.



Qualifiers:

- * - Associated LCS is outside of control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Method Detection Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 5:40:00 PM

Project: A1K0892

Lab ID: 2111482-001

Matrix: Water

Client Sample ID: GW-PZ-01-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 34576

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	79.9	39.6		µg/L	1	12/08/21 9:01:42
Aliphatic Hydrocarbon (C10-C12)	ND	39.9	20.6	*	µg/L	1	12/08/21 9:01:42
Aliphatic Hydrocarbon (C12-C16)	ND	39.9	9.84		µg/L	1	12/08/21 9:01:42
Aliphatic Hydrocarbon (C16-C21)	ND	39.9	14.3		µg/L	1	12/08/21 9:01:42
Aliphatic Hydrocarbon (C21-C34)	ND	39.9	22.6	*	µg/L	1	12/08/21 9:01:42
Aromatic Hydrocarbon (C8-C10)	ND	79.9	26.0		µg/L	1	12/07/21 20:38:44
Aromatic Hydrocarbon (C10-C12)	ND	39.9	8.89		µg/L	1	12/07/21 20:38:44
Aromatic Hydrocarbon (C12-C16)	ND	39.9	6.98		µg/L	1	12/07/21 20:38:44
Aromatic Hydrocarbon (C16-C21)	17.0	39.9	12.8	J	µg/L	1	12/07/21 20:38:44
Aromatic Hydrocarbon (C21-C34)	ND	39.9	26.5		µg/L	1	12/07/21 20:38:44
Surr: 1-Chlorooctadecane	55.1	60 - 140		S	%Rec	1	12/08/21 9:01:42
Surr: o-Terphenyl	73.2	60 - 140			%Rec	1	12/07/21 20:38:44

NOTES:

S - Outlying surrogate recovery(ies) observed.

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		µg/L	1	11/30/21 0:40:53
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		µg/L	1	11/30/21 0:40:53
Aliphatic Hydrocarbon (C8-C10)	14.0	20.0	6.78	J	µg/L	1	11/30/21 0:40:53
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		µg/L	1	11/30/21 0:40:53
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		µg/L	1	11/30/21 0:40:53
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 0:40:53
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 0:40:53
Benzene	ND	20.0	5.04		µg/L	1	11/30/21 0:40:53
Toluene	ND	25.0	5.92		µg/L	1	11/30/21 0:40:53
Ethylbenzene	ND	25.0	12.5		µg/L	1	11/30/21 0:40:53
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/30/21 0:40:53
o-Xylene	ND	20.0	5.99		µg/L	1	11/30/21 0:40:53
Naphthalene	ND	40.0	19.6		µg/L	1	11/30/21 0:40:53
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		µg/L	1	11/30/21 0:40:53



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 5:40:00 PM

Project: A1K0892

Lab ID: 2111482-001

Matrix: Water

Client Sample ID: GW-PZ-01-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Surr: 1,4-Difluorobenzene	80.7	65 - 140	0	%Rec	1	11/30/21 0:40:53
Surr: Bromofluorobenzene	94.0	65 - 140	0	%Rec	1	11/30/21 0:40:53



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 3:35:00 PM

Project: A1K0892

Lab ID: 2111482-002

Matrix: Water

Client Sample ID: GW-PZ-02-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 34576

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	79.4	39.3		µg/L	1	12/08/21 9:54:36
Aliphatic Hydrocarbon (C10-C12)	ND	39.7	20.5	*	µg/L	1	12/08/21 9:54:36
Aliphatic Hydrocarbon (C12-C16)	ND	39.7	9.78		µg/L	1	12/08/21 9:54:36
Aliphatic Hydrocarbon (C16-C21)	ND	39.7	14.2		µg/L	1	12/08/21 9:54:36
Aliphatic Hydrocarbon (C21-C34)	ND	39.7	22.4	*	µg/L	1	12/08/21 9:54:36
Aromatic Hydrocarbon (C8-C10)	ND	79.4	25.9		µg/L	1	12/07/21 21:31:48
Aromatic Hydrocarbon (C10-C12)	ND	39.7	8.84		µg/L	1	12/07/21 21:31:48
Aromatic Hydrocarbon (C12-C16)	ND	39.7	6.93		µg/L	1	12/07/21 21:31:48
Aromatic Hydrocarbon (C16-C21)	ND	39.7	12.7		µg/L	1	12/07/21 21:31:48
Aromatic Hydrocarbon (C21-C34)	ND	39.7	26.4		µg/L	1	12/07/21 21:31:48
Surr: 1-Chlorooctadecane	50.3	60 - 140		S	%Rec	1	12/08/21 9:54:36
Surr: o-Terphenyl	75.5	60 - 140			%Rec	1	12/07/21 21:31:48

NOTES:

S - Outlying surrogate recovery(ies) observed.

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		µg/L	1	11/30/21 14:08:39
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		µg/L	1	11/30/21 14:08:39
Aliphatic Hydrocarbon (C8-C10)	13.5	20.0	6.78	J	µg/L	1	11/30/21 14:08:39
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		µg/L	1	11/30/21 14:08:39
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		µg/L	1	11/30/21 14:08:39
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 14:08:39
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 14:08:39
Benzene	ND	20.0	5.04		µg/L	1	11/30/21 14:08:39
Toluene	ND	25.0	5.92		µg/L	1	11/30/21 14:08:39
Ethylbenzene	ND	25.0	12.5		µg/L	1	11/30/21 14:08:39
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/30/21 14:08:39
o-Xylene	ND	20.0	5.99		µg/L	1	11/30/21 14:08:39
Naphthalene	ND	40.0	19.6		µg/L	1	11/30/21 14:08:39
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		µg/L	1	11/30/21 14:08:39



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 3:35:00 PM

Project: A1K0892

Lab ID: 2111482-002

Matrix: Water

Client Sample ID: GW-PZ-02-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Surr: 1,4-Difluorobenzene	75.9	65 - 140	0	%Rec	1	11/30/21 14:08:39
Surr: Bromofluorobenzene	92.2	65 - 140	0	%Rec	1	11/30/21 14:08:39



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 12:05:00 PM

Project: A1K0892

Lab ID: 2111482-003

Matrix: Water

Client Sample ID: GW-PZ-03-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 34576

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	80.0	39.6		µg/L	1	12/08/21 10:47:40
Aliphatic Hydrocarbon (C10-C12)	ND	40.0	20.7	*	µg/L	1	12/08/21 10:47:40
Aliphatic Hydrocarbon (C12-C16)	ND	40.0	9.85		µg/L	1	12/08/21 10:47:40
Aliphatic Hydrocarbon (C16-C21)	ND	40.0	14.3		µg/L	1	12/08/21 10:47:40
Aliphatic Hydrocarbon (C21-C34)	ND	40.0	22.6	*	µg/L	1	12/08/21 10:47:40
Aromatic Hydrocarbon (C8-C10)	ND	80.0	26.1		µg/L	1	12/07/21 22:24:58
Aromatic Hydrocarbon (C10-C12)	ND	40.0	8.90		µg/L	1	12/07/21 22:24:58
Aromatic Hydrocarbon (C12-C16)	ND	40.0	6.98		µg/L	1	12/07/21 22:24:58
Aromatic Hydrocarbon (C16-C21)	168	40.0	12.8		µg/L	1	12/07/21 22:24:58
Aromatic Hydrocarbon (C21-C34)	93.6	40.0	26.6		µg/L	1	12/07/21 22:24:58
Surr: 1-Chlorooctadecane	51.1	60 - 140		S	%Rec	1	12/08/21 10:47:40
Surr: o-Terphenyl	76.1	60 - 140			%Rec	1	12/07/21 22:24:58

NOTES:

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		µg/L	1	11/30/21 1:19:59
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		µg/L	1	11/30/21 1:19:59
Aliphatic Hydrocarbon (C8-C10)	12.7	20.0	6.78	J	µg/L	1	11/30/21 1:19:59
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		µg/L	1	11/30/21 1:19:59
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		µg/L	1	11/30/21 1:19:59
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 1:19:59
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 1:19:59
Benzene	ND	20.0	5.04		µg/L	1	11/30/21 1:19:59
Toluene	ND	25.0	5.92		µg/L	1	11/30/21 1:19:59
Ethylbenzene	ND	25.0	12.5		µg/L	1	11/30/21 1:19:59
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/30/21 1:19:59
o-Xylene	ND	20.0	5.99		µg/L	1	11/30/21 1:19:59
Naphthalene	ND	40.0	19.6		µg/L	1	11/30/21 1:19:59
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		µg/L	1	11/30/21 1:19:59



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 12:05:00 PM

Project: A1K0892

Lab ID: 2111482-003

Matrix: Water

Client Sample ID: GW-PZ-03-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Surr: 1,4-Difluorobenzene	79.7	65 - 140	0	%Rec	1	11/30/21 1:19:59
Surr: Bromofluorobenzene	93.7	65 - 140	0	%Rec	1	11/30/21 1:19:59



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 10:32:00 AM

Project: A1K0892

Lab ID: 2111482-004

Matrix: Water

Client Sample ID: GW-PZ-04-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 34576

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	79.8	39.5		µg/L	1	12/08/21 12:33:45
Aliphatic Hydrocarbon (C10-C12)	ND	39.9	20.6	*	µg/L	1	12/08/21 12:33:45
Aliphatic Hydrocarbon (C12-C16)	ND	39.9	9.82		µg/L	1	12/08/21 12:33:45
Aliphatic Hydrocarbon (C16-C21)	ND	39.9	14.2		µg/L	1	12/08/21 12:33:45
Aliphatic Hydrocarbon (C21-C34)	ND	39.9	22.5	*	µg/L	1	12/08/21 12:33:45
Aromatic Hydrocarbon (C8-C10)	27.4	79.8	26.0	J	µg/L	1	12/08/21 0:11:11
Aromatic Hydrocarbon (C10-C12)	ND	39.9	8.88		µg/L	1	12/08/21 0:11:11
Aromatic Hydrocarbon (C12-C16)	ND	39.9	6.96		µg/L	1	12/08/21 0:11:11
Aromatic Hydrocarbon (C16-C21)	ND	39.9	12.7		µg/L	1	12/08/21 0:11:11
Aromatic Hydrocarbon (C21-C34)	ND	39.9	26.5		µg/L	1	12/08/21 0:11:11
Surr: 1-Chlorooctadecane	45.4	60 - 140		S	%Rec	1	12/08/21 12:33:45
Surr: o-Terphenyl	69.2	60 - 140			%Rec	1	12/08/21 0:11:11

NOTES:

S - Outlying surrogate recovery(ies) observed.

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		µg/L	1	11/30/21 1:59:01
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		µg/L	1	11/30/21 1:59:01
Aliphatic Hydrocarbon (C8-C10)	12.4	20.0	6.78	J	µg/L	1	11/30/21 1:59:01
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		µg/L	1	11/30/21 1:59:01
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		µg/L	1	11/30/21 1:59:01
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 1:59:01
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 1:59:01
Benzene	ND	20.0	5.04		µg/L	1	11/30/21 1:59:01
Toluene	ND	25.0	5.92		µg/L	1	11/30/21 1:59:01
Ethylbenzene	ND	25.0	12.5		µg/L	1	11/30/21 1:59:01
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/30/21 1:59:01
o-Xylene	ND	20.0	5.99		µg/L	1	11/30/21 1:59:01
Naphthalene	ND	40.0	19.6		µg/L	1	11/30/21 1:59:01
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		µg/L	1	11/30/21 1:59:01



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 10:32:00 AM

Project: A1K0892

Lab ID: 2111482-004

Matrix: Water

Client Sample ID: GW-PZ-04-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Surr: 1,4-Difluorobenzene	77.2	65 - 140	0	%Rec	1	11/30/21 1:59:01
Surr: Bromofluorobenzene	97.4	65 - 140	0	%Rec	1	11/30/21 1:59:01



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 3:40:00 PM

Project: A1K0892

Lab ID: 2111482-005

Matrix: Water

Client Sample ID: GW-Dup-1-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 34576

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	79.7	39.5		µg/L	1	12/08/21 13:26:46
Aliphatic Hydrocarbon (C10-C12)	ND	39.8	20.6	*	µg/L	1	12/08/21 13:26:46
Aliphatic Hydrocarbon (C12-C16)	ND	39.8	9.81		µg/L	1	12/08/21 13:26:46
Aliphatic Hydrocarbon (C16-C21)	ND	39.8	14.2		µg/L	1	12/08/21 13:26:46
Aliphatic Hydrocarbon (C21-C34)	ND	39.8	22.5	*	µg/L	1	12/08/21 13:26:46
Aromatic Hydrocarbon (C8-C10)	ND	79.7	26.0		µg/L	1	12/08/21 1:04:09
Aromatic Hydrocarbon (C10-C12)	ND	39.8	8.87		µg/L	1	12/08/21 1:04:09
Aromatic Hydrocarbon (C12-C16)	ND	39.8	6.96		µg/L	1	12/08/21 1:04:09
Aromatic Hydrocarbon (C16-C21)	ND	39.8	12.7		µg/L	1	12/08/21 1:04:09
Aromatic Hydrocarbon (C21-C34)	ND	39.8	26.5		µg/L	1	12/08/21 1:04:09
Surr: 1-Chlorooctadecane	47.2	60 - 140		S	%Rec	1	12/08/21 13:26:46
Surr: o-Terphenyl	67.6	60 - 140			%Rec	1	12/08/21 1:04:09

NOTES:

S - Outlying surrogate recovery(ies) observed.

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		µg/L	1	11/30/21 14:48:07
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		µg/L	1	11/30/21 14:48:07
Aliphatic Hydrocarbon (C8-C10)	12.7	20.0	6.78	J	µg/L	1	11/30/21 14:48:07
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		µg/L	1	11/30/21 14:48:07
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		µg/L	1	11/30/21 14:48:07
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 14:48:07
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 14:48:07
Benzene	ND	20.0	5.04		µg/L	1	11/30/21 14:48:07
Toluene	ND	25.0	5.92		µg/L	1	11/30/21 14:48:07
Ethylbenzene	ND	25.0	12.5		µg/L	1	11/30/21 14:48:07
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/30/21 14:48:07
o-Xylene	ND	20.0	5.99		µg/L	1	11/30/21 14:48:07
Naphthalene	ND	40.0	19.6		µg/L	1	11/30/21 14:48:07
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		µg/L	1	11/30/21 14:48:07



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 3:40:00 PM

Project: A1K0892

Lab ID: 2111482-005

Matrix: Water

Client Sample ID: GW-Dup-1-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Surr: 1,4-Difluorobenzene	74.4	65 - 140	0	%Rec	1	11/30/21 14:48:07
Surr: Bromofluorobenzene	91.0	65 - 140	0	%Rec	1	11/30/21 14:48:07



Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 6:10:00 PM

Project: A1K0892

Lab ID: 2111482-006

Matrix: Water

Client Sample ID: GW-Equipment-Blank-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Extractable Petroleum Hydrocarbons by NWEPH

Batch ID: 34576

Analyst: MM

Aliphatic Hydrocarbon (C8-C10)	ND	79.8	39.5		µg/L	1	12/08/21 14:20:08
Aliphatic Hydrocarbon (C10-C12)	ND	39.9	20.6	*	µg/L	1	12/08/21 14:20:08
Aliphatic Hydrocarbon (C12-C16)	ND	39.9	9.84		µg/L	1	12/08/21 14:20:08
Aliphatic Hydrocarbon (C16-C21)	ND	39.9	14.3		µg/L	1	12/08/21 14:20:08
Aliphatic Hydrocarbon (C21-C34)	ND	39.9	22.6	*	µg/L	1	12/08/21 14:20:08
Aromatic Hydrocarbon (C8-C10)	ND	79.8	26.0		µg/L	1	12/08/21 1:57:33
Aromatic Hydrocarbon (C10-C12)	ND	39.9	8.89		µg/L	1	12/08/21 1:57:33
Aromatic Hydrocarbon (C12-C16)	ND	39.9	6.97		µg/L	1	12/08/21 1:57:33
Aromatic Hydrocarbon (C16-C21)	ND	39.9	12.8		µg/L	1	12/08/21 1:57:33
Aromatic Hydrocarbon (C21-C34)	27.9	39.9	26.5	J	µg/L	1	12/08/21 1:57:33
Surr: 1-Chlorooctadecane	77.6	60 - 140			%Rec	1	12/08/21 14:20:08
Surr: o-Terphenyl	81.1	60 - 140			%Rec	1	12/08/21 1:57:33

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	24.4	25.0	7.24	J	µg/L	1	11/30/21 15:27:04
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		µg/L	1	11/30/21 15:27:04
Aliphatic Hydrocarbon (C8-C10)	12.9	20.0	6.78	J	µg/L	1	11/30/21 15:27:04
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		µg/L	1	11/30/21 15:27:04
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		µg/L	1	11/30/21 15:27:04
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 15:27:04
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 15:27:04
Benzene	ND	20.0	5.04		µg/L	1	11/30/21 15:27:04
Toluene	ND	25.0	5.92		µg/L	1	11/30/21 15:27:04
Ethylbenzene	ND	25.0	12.5		µg/L	1	11/30/21 15:27:04
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/30/21 15:27:04
o-Xylene	ND	20.0	5.99		µg/L	1	11/30/21 15:27:04
Naphthalene	ND	40.0	19.6		µg/L	1	11/30/21 15:27:04
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		µg/L	1	11/30/21 15:27:04
Surr: 1,4-Difluorobenzene	75.2	65 - 140	0		%Rec	1	11/30/21 15:27:04



Fremont
Analytical

Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 6:10:00 PM

Project: A1K0892

Lab ID: 2111482-006

Matrix: Water

Client Sample ID: GW-Equipment-Blank-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Surr: Bromofluorobenzene	91.8	65 - 140	0	%Rec	1	11/30/21 15:27:04
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Analytical Report

Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories

Collection Date: 11/17/2021 8:00:00 AM

Project: A1K0892

Lab ID: 2111482-007

Matrix: Water

Client Sample ID: GW-Trip-Blank-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
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Volatile Petroleum Hydrocarbons by NWVPH

Batch ID: 34578

Analyst: SLL

Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		µg/L	1	11/29/21 19:29:17
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		µg/L	1	11/29/21 19:29:17
Aliphatic Hydrocarbon (C8-C10)	13.9	20.0	6.78	J	µg/L	1	11/29/21 19:29:17
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		µg/L	1	11/29/21 19:29:17
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		µg/L	1	11/29/21 19:29:17
Aromatic Hydrocarbon (C10-C12)	34.9	20.0	5.87		µg/L	1	11/29/21 19:29:17
Aromatic Hydrocarbon (C12-C13)	390	25.0	7.76		µg/L	1	11/29/21 19:29:17
Benzene	ND	20.0	5.04		µg/L	1	11/29/21 19:29:17
Toluene	ND	25.0	5.92		µg/L	1	11/29/21 19:29:17
Ethylbenzene	ND	25.0	12.5		µg/L	1	11/29/21 19:29:17
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/29/21 19:29:17
o-Xylene	ND	20.0	5.99		µg/L	1	11/29/21 19:29:17
Naphthalene	ND	40.0	19.6	Q	µg/L	1	11/29/21 19:29:17
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		µg/L	1	11/29/21 19:29:17
Surr: 1,4-Difluorobenzene	69.1	65 - 140	0		%Rec	1	11/29/21 19:29:17
Surr: Bromofluorobenzene	90.0	65 - 140	0		%Rec	1	11/29/21 19:29:17

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Work Order: 2111482

CLIENT: Apex Laboratories

Project: A1K0892

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: MB-34576		SampType: MBLK		Units: µg/L		Prep Date: 11/29/2021		RunNo: 71826			
Client ID: MBLKW		Batch ID: 34576				Analysis Date: 12/7/2021		SeqNo: 1465058			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	ND	80.1		0	0						
Aromatic Hydrocarbon (C10-C12)	ND	40.0		0	0						
Aromatic Hydrocarbon (C12-C16)	ND	40.0		0	0						
Aromatic Hydrocarbon (C16-C21)	ND	40.0		0	0						
Aromatic Hydrocarbon (C21-C34)	ND	40.0		0	0						
Surr: o-Terphenyl	274		400.4		68.4	60	140				

Sample ID: LCS-34576		SampType: LCS		Units: µg/L		Prep Date: 11/29/2021		RunNo: 71826			
Client ID: LCSW		Batch ID: 34576				Analysis Date: 12/7/2021		SeqNo: 1465059			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	451	79.9	999.0	0	45.1	24.3	130				
Aromatic Hydrocarbon (C10-C12)	353	40.0	499.5	0	70.7	70	130				
Aromatic Hydrocarbon (C12-C16)	401	40.0	499.5	0	80.3	70	130				
Aromatic Hydrocarbon (C16-C21)	449	40.0	499.5	0	89.9	70	130				
Aromatic Hydrocarbon (C21-C34)	454	40.0	499.5	0	90.9	70	130				
Surr: o-Terphenyl	331		399.6		82.9	60	140				

Sample ID: LCSD-34576	SampType: LCSD	Units: µg/L	Prep Date: 11/29/2021	RunNo: 71826							
Client ID: LCSW02	Batch ID: 34576		Analysis Date: 12/7/2021	SeqNo: 1465060							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	378	79.9	998.7	0	37.9	24.3	130	450.9	17.6	20	
Aromatic Hydrocarbon (C10-C12)	310	39.9	499.3	0	62.1	70	130	353.0	12.9	20	S
Aromatic Hydrocarbon (C12-C16)	350	39.9	499.3	0	70.2	70	130	401.2	13.5	20	
Aromatic Hydrocarbon (C16-C21)	390	39.9	499.3	0	78.2	70	130	449.0	14.0	20	
Aromatic Hydrocarbon (C21-C34)	445	39.9	499.3	0	89.0	70	130	453.8	2.07	20	
Surr: o-Terphenyl	298		399.5		74.7	60	140		0		

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.



Work Order: 2111482

CLIENT: Apex Laboratories

Project: A1K0892

QC SUMMARY REPORT
Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: 2111482-003BMS		SampType: MS		Units: µg/L		Prep Date: 11/29/2021		RunNo: 71826			
Client ID: GW-PZ-03-1121		Batch ID: 34576				Analysis Date: 12/7/2021		SeqNo: 1465065			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	265	79.2	990.3	0	26.8	6.65	130				
Aromatic Hydrocarbon (C10-C12)	253	39.6	495.1	0	51.0	70	130				S
Aromatic Hydrocarbon (C12-C16)	327	39.6	495.1	0	66.0	70	130				S
Aromatic Hydrocarbon (C16-C21)	368	39.6	495.1	167.7	40.4	70	130				S
Aromatic Hydrocarbon (C21-C34)	505	39.6	495.1	93.56	83.1	70	130				
Surr: o-Terphenyl	304		396.1		76.8	60	140				

NOTES:

S - Outlying spike recovery(ies) observed.

Sample ID: MB-34576		SampType: MBLK		Units: µg/L		Prep Date: 11/29/2021		RunNo: 71825			
Client ID: MBLKW		Batch ID: 34576				Analysis Date: 12/8/2021		SeqNo: 1464992			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	ND	80.1		0	0						
Aliphatic Hydrocarbon (C10-C12)	ND	40.0		0	0						*
Aliphatic Hydrocarbon (C12-C16)	ND	40.0		0	0						
Aliphatic Hydrocarbon (C16-C21)	ND	40.0		0	0						
Aliphatic Hydrocarbon (C21-C34)	ND	40.0		0	0						*
Surr: 1-Chlorooctadecane	258		400.4		64.5	60	140				

NOTES:

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Sample ID: LCS-34576	SampType: LCS	Units: µg/L		Prep Date: 11/29/2021	RunNo: 71825						
Client ID: LCSW	Batch ID: 34576			Analysis Date: 12/8/2021	SeqNo: 1464993						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	310	79.9	999.0	0	31.1	11.7	130				
Aliphatic Hydrocarbon (C10-C12)	270	40.0	499.5	0	54.0	70	130				S
Aliphatic Hydrocarbon (C12-C16)	351	40.0	499.5	0	70.3	70	130				
Aliphatic Hydrocarbon (C16-C21)	373	40.0	499.5	0	74.6	70	130				
Aliphatic Hydrocarbon (C21-C34)	206	40.0	499.5	0	41.2	70	130				S
Surr: 1-Chlorooctadecane	302		399.6		75.6	60	140				



Work Order: 2111482

CLIENT: Apex Laboratories

Project: A1K0892

QC SUMMARY REPORT
Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: LCS-34576	SampType: LCS	Units: µg/L	Prep Date: 11/29/2021	RunNo: 71825							
Client ID: LCSW	Batch ID: 34576		Analysis Date: 12/8/2021	SeqNo: 1464993							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

S - Outlying spike recovery observed for (C10-C12) & (C21-C34). Samples will be qualified with a *.

Sample ID: LCSD-34576	SampType: LCSD	Units: µg/L	Prep Date: 11/29/2021	RunNo: 71825							
Client ID: LCSW02	Batch ID: 34576		Analysis Date: 12/8/2021	SeqNo: 1464994							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aliphatic Hydrocarbon (C8-C10)

Aliphatic Hydrocarbon (C10-C12)

Aliphatic Hydrocarbon (C12-C16)

Aliphatic Hydrocarbon (C16-C21)

Aliphatic Hydrocarbon (C21-C34)

Surr: 1-Chlorooctadecane

NOTES:

S - Outlying spike recovery observed for (C12-C16). A duplicate analysis was performed and recovered within range.

S - Outlying spike recovery observed for (C10-C12) & (C21-C34). Samples will be qualified with a *.

S - Outlying spike recovery observed for (C10-C12) & (C21-C34) . Samples will be qualified with a *.											
Sample ID: 2111482-003BMS	SampType: MS	Units: µg/L		Prep Date: 11/29/2021	RunNo: 71825						
Client ID: GW-PZ-03-1121	Batch ID: 34576			Analysis Date: 12/8/2021	SeqNo: 1464958						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aliphatic Hydrocarbon (C8-C10)

Aliphatic Hydrocarbon (C10-C12)

Aliphatic Hydrocarbon (C12-C16)

Aliphatic Hydrocarbon (C16-C21)

Aliphatic Hydrocarbon (C21-C34)

Surr: 1-Chlorooctadecane

NOTES:

S - Outlying spike recovery observed for (C10-C12), (C12-C16) & (C21-C34).

Work Order: 2111482

CLIENT: Apex Laboratories

Project: A1K0892

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWWPH

Sample ID: LCS-34578		SampType: LCS		Units: µg/L		Prep Date: 11/29/2021		RunNo: 71696			
Client ID: LCSW		Batch ID: 34578				Analysis Date: 11/29/2021		SeqNo: 1461360			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	581	25.0	600.0	0	96.8	70	130				
Aliphatic Hydrocarbon (C6-C8)	193	45.0	200.0	0	96.4	70	130				
Aliphatic Hydrocarbon (C8-C10)	196	20.0	200.0	0	98.2	70	130				
Aliphatic Hydrocarbon (C10-C12)	196	25.0	200.0	0	98.2	70	130				
Aromatic Hydrocarbon (C8-C10)	874	50.0	800.0	0	109	70	130				
Aromatic Hydrocarbon (C10-C12)	173	20.0	200.0	0	86.5	70	130				
Aromatic Hydrocarbon (C12-C13)	172	25.0	200.0	0	86.1	70	130				
Benzene	205	20.0	200.0	0	102	70	130				
Toluene	209	25.0	200.0	0	105	70	130				
Ethylbenzene	214	25.0	200.0	0	107	70	130				
m,p-Xylene	381	40.0	400.0	0	95.2	70	130				
o-Xylene	213	20.0	200.0	0	107	70	130				
Naphthalene	165	40.0	200.0	0	82.4	70	130				
Methyl tert-butyl ether (MTBE)	194	25.0	200.0	0	97.0	70	130				
Surr: 1,4-Difluorobenzene	47.3		50.00		94.6	65	140				
Surr: Bromofluorobenzene	45.0		50.00		90.0	65	140				

Sample ID: MB-34578		SampType: MBLK		Units: µg/L		Prep Date: 11/29/2021		RunNo: 71696			
Client ID: MBLKW		Batch ID: 34578				Analysis Date: 11/29/2021		SeqNo: 1461359			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	22.4	25.0		0	0						J
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		0	0						
Aliphatic Hydrocarbon (C8-C10)	13.4	20.0		0	0						J
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		0	0						
Aromatic Hydrocarbon (C8-C10)	ND	50.0		0	0						
Aromatic Hydrocarbon (C10-C12)	ND	20.0		0	0						
Aromatic Hydrocarbon (C12-C13)	ND	25.0		0	0						
Benzene	ND	20.0		0	0						
Toluene	ND	25.0		0	0						
Ethylbenzene	ND	25.0		0	0						



Work Order: 2111482

CLIENT: Apex Laboratories

Project: A1K0892

QC SUMMARY REPORT
Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: MB-34578	SampType: MBLK	Units: µg/L		Prep Date: 11/29/2021	RunNo: 71696						
Client ID: MBLKW	Batch ID: 34578			Analysis Date: 11/29/2021	SeqNo: 1461359						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	ND	40.0		0	0						
o-Xylene	ND	20.0		0	0						
Naphthalene	ND	40.0		0	0						
Methyl tert-butyl ether (MTBE)	ND	25.0		0	0						Q
Surr: 1,4-Difluorobenzene	37.3		50.00		74.7	65	140				
Surr: Bromofluorobenzene	45.5		50.00		91.0	65	140				

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: 2111482-006AMS		SampType: MS		Units: µg/L		Prep Date: 11/29/2021		RunNo: 71696			
Client ID: GW-Equipment-Blank-1		Batch ID: 34578				Analysis Date: 11/30/2021		SeqNo: 1461354			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	597	25.0	600.0	24.45	95.5	70	130				
Aliphatic Hydrocarbon (C6-C8)	198	45.0	200.0	0	98.8	70	130				
Aliphatic Hydrocarbon (C8-C10)	197	20.0	200.0	12.91	92.1	70	130				
Aliphatic Hydrocarbon (C10-C12)	201	25.0	200.0	0	101	70	130				
Aromatic Hydrocarbon (C8-C10)	976	50.0	800.0	0	122	70	130				
Aromatic Hydrocarbon (C10-C12)	198	20.0	200.0	0	99.1	70	130				
Aromatic Hydrocarbon (C12-C13)	206	25.0	200.0	0	103	70	130				
Benzene	219	20.0	200.0	0	110	70	130				
Toluene	227	25.0	200.0	0	114	70	130				
Ethylbenzene	239	25.0	200.0	0	120	70	130				
m,p-Xylene	421	40.0	400.0	0	105	70	130				
o-Xylene	234	20.0	200.0	0	117	70	130				
Naphthalene	193	40.0	200.0	0	96.7	70	130				
Methyl tert-butyl ether (MTBE)	212	25.0	200.0	0	106	70	130				
Surr: 1,4-Difluorobenzene	48.8		50.00		97.7	65	140				
Surr: Bromofluorobenzene	48.7		50.00		97.4	65	140				



Work Order: 2111482

CLIENT: Apex Laboratories

Project: A1K0892

QC SUMMARY REPORT
Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: 2111482-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 11/29/2021		RunNo: 71696			
Client ID: GW-PZ-01-1121		Batch ID: 34578		Analysis Date: 11/30/2021				SeqNo: 1461345			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	25.0		0	0			0	0	25	
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		0	0			0	0	25	
Aliphatic Hydrocarbon (C8-C10)	13.7	20.0		0	0			13.96	2.13	25	J
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		0	0			0	0	25	
Aromatic Hydrocarbon (C8-C10)	ND	50.0		0	0			0	0	25	
Aromatic Hydrocarbon (C10-C12)	ND	20.0		0	0			0	0	25	
Aromatic Hydrocarbon (C12-C13)	ND	25.0		0	0			0	0	25	
Benzene	ND	20.0		0	0			0	0	25	
Toluene	ND	25.0		0	0			0	0	25	
Ethylbenzene	ND	25.0		0	0			0	0	25	
m,p-Xylene	ND	40.0		0	0			0	0	25	
o-Xylene	ND	20.0		0	0			0	0	25	
Naphthalene	ND	40.0		0	0			0	0	25	
Methyl tert-butyl ether (MTBE)	ND	25.0		0	0			0	0	25	
Surr: 1,4-Difluorobenzene	38.5		50.00		77.0	65	140		0		
Surr: Bromofluorobenzene	46.9		50.00		93.9	65	140		0		



Client Name: APEX
Logged by: Clare Griggs

Work Order Number: 2111482
Date Received: 11/23/2021 10:43:00 AM

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of $>2^{\circ}\text{C}$ to 6°C * Yes ☒ No ☐ NA ☐
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

19. Additional remarks:

Item Information

Item #	Temp °C
Sample	3.2

* Note: DoD/ELAP and TNI require items to be received at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$

SUBCONTRACT ORDER

Apex Laboratories

A1K0892

2111482

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Fremont Analytical
3600 Fremont Avenue N.
Seattle, WA 98103
Phone: (206) 352-3790
Fax: (206) 352-7178

Sample Name: GW-PZ-01-1121

Water

Sampled: 11/17/21 17:40

(A1K0892-01)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 17:40	
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 17:40	
<i>Containers Supplied:</i>			
(A)40 mL VOA - HCL			
(B)40 mL VOA - HCL			
(C)40 mL VOA - HCL			
(K)1 L Amber Glass - HCL			
(L)1 L Amber Glass - HCL			

Sample Name: GW-PZ-02-1121

Water

Sampled: 11/17/21 15:35

(A1K0892-02)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 15:35	
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 15:35	
<i>Containers Supplied:</i>			
(A)40 mL VOA - HCL			
(B)40 mL VOA - HCL			
(C)40 mL VOA - HCL			
(K)1 L Amber Glass - HCL			
(L)1 L Amber Glass - HCL			

Standard TAT

UPS (Shipper)

Released By

Date

UPS (Shipper)

Received By

Date

Released By

Date

Received By

Date

SUBCONTRACT ORDER

Apex Laboratories

A1K0892

2111483
2111482

Sample Name: GW-PZ-03-1121

Water

Sampled: 11/17/21 12:05

(A1K0892-03)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 12:05	
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 12:05	
Containers Supplied:			
(A)40 mL VOA - HCL			
(B)40 mL VOA - HCL			
(C)40 mL VOA - HCL			
(K)1 L Amber Glass - HCL			
(L)1 L Amber Glass - HCL			

Sample Name: GW-PZ-04-1121

Water

Sampled: 11/17/21 10:32

(A1K0892-04)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 10:32	
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 10:32	
Containers Supplied:			
(A)40 mL VOA - HCL			
(B)40 mL VOA - HCL			
(C)40 mL VOA - HCL			
(K)1 L Amber Glass - HCL			
(L)1 L Amber Glass - HCL			

Sample Name: GW-Dup-1-1121

Water

Sampled: 11/17/21 15:40

(A1K0892-06)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 15:40	
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 15:40	
Containers Supplied:			
(A)40 mL VOA - HCL			
(B)40 mL VOA - HCL			
(C)40 mL VOA - HCL			
(K)1 L Amber Glass - HCL			
(L)1 L Amber Glass - HCL			

Standard TAT

Released By	Date	Received By	Date
UPS (Shipper)		UPS (Shipper)	
Released By	Date	Received By	Date
			11/23/21 1043

SUBCONTRACT ORDER

Apex Laboratories

A1K0892

4 2111480

Sample Name: GW-Equipment-Blank-1121

Water

Sampled: 11/17/21 18:10

(A1K0892-07)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 18:10	
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 18:10	
Containers Supplied:			
(A)40 mL VOA - HCL			
(B)40 mL VOA - HCL			
(C)40 mL VOA - HCL			
(K)1 L Amber Glass - HCL			
(L)1 L Amber Glass - HCL			

TB# 2966, container reads Trip-Blank 1121 w/t

Sample Name: GW-Trip-Blank-1121

Water

Sampled: 11/17/21 08:00

(A1K0892-08)

Analysis	Due	Expires	Comments
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 08:00	
Containers Supplied:			
(A)40 mL VOA - HCL			

Standard TAT

Released By

Date

UPS (Shipper)

Received By

Date

Received By

Date

March 10, 2022

Vista Work Order No. 2202107

Mr. Josh Bale
GSI Water Solutions
55 SW Yamhill Street, Suite 300
Portland, OR 97204

Dear Mr. Bale,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on February 08, 2022 under your Project Name 'Eatonville'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at jfox@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Jamie Fox
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 2202107**Case Narrative****Sample Condition on Receipt:**

Fifteen aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements. A sample ID discrepancy was noted for all of the samples between the container label and the Chain-of-Custody (CoC). The sample IDs have been reported as listed on the CoC. The collection date for sample "PZ-04_0222" was listed as "2/4/22" on the container label.

Analytical Notes:**EPA Method 1614**

These samples were extracted and analyzed for selected PBDE congeners by EPA Method 1614 using a ZB-5MS GC column.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) were extracted and analyzed with the preparation batch. No analytes were detected above the method quantitation limit in the Method Blank. The LCS/LCSD recoveries and relative percent differences (RPD) were within the method acceptance criteria.

The labeled standard recovery outside the method acceptance criteria is listed in the table below:

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
2202107-09	SW14_0222	EPA Method 1614	13C-BDE-183	H	151

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2202107-01	SW07_0222	02-Feb-22 11:00	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-02	SW08_0222	02-Feb-22 12:10	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-03	SW09_0222	02-Feb-22 13:25	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-04	SW10_0222	02-Feb-22 14:22	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-05	SW11_0222	02-Feb-22 15:15	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-06	SW12_0222	02-Feb-22 16:00	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-07	SW13_0222	02-Feb-22 17:25	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-08	SW109_0222	02-Feb-22 13:30	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-09	SW14_0222	04-Feb-22 14:55	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-10	PZ-01_0222	04-Feb-22 12:35	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-11	PZ-02_0222	04-Feb-22 10:40	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-12	PZ-03_0222	03-Feb-22 15:15	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-13	PZ-04_0222	03-Feb-22 12:05	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-14	PZ-05_0222	04-Feb-22 13:45	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
2202107-15	PZ-102_0222	04-Feb-22 10:50	08-Feb-22 13:03	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L

ANALYTICAL RESULTS

Sample ID: Method Blank
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous

Laboratory Data

Lab Sample: B22B176-BLK1
 QC Batch: B22B176
 Sample Size: 1.00 L
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.39			26-Feb-22 17:23	1
BDE-2	ND	4.76			26-Feb-22 17:23	1
BDE-3	ND	4.21			26-Feb-22 17:23	1
BDE-10	ND	0.342			26-Feb-22 17:23	1
BDE-7	ND	0.324			26-Feb-22 17:23	1
BDE-8/11	ND	0.234			26-Feb-22 17:23	1
BDE-12	ND	0.222			26-Feb-22 17:23	1
BDE-13	ND	0.203			26-Feb-22 17:23	1
BDE-15	ND	0.168			26-Feb-22 17:23	1
BDE-30	ND	0.311			26-Feb-22 17:23	1
BDE-32	ND	0.230			26-Feb-22 17:23	1
BDE-17	ND	0.240			26-Feb-22 17:23	1
BDE-25	ND	0.337			26-Feb-22 17:23	1
BDE-28/33	ND		0.368		26-Feb-22 17:23	1
BDE-35/21	ND	0.204			26-Feb-22 17:23	1
BDE-37	ND	0.183			26-Feb-22 17:23	1
BDE-75/51	ND	0.169			26-Feb-22 17:23	1
BDE-49	ND	0.222			26-Feb-22 17:23	1
BDE-71	ND	0.236			26-Feb-22 17:23	1
BDE-47	4.85			J	26-Feb-22 17:23	1
BDE-66	ND	0.235			26-Feb-22 17:23	1
BDE-77	ND	0.132			26-Feb-22 17:23	1
BDE-79	ND	0.147			26-Feb-22 17:23	1
BDE-100	0.768			J	26-Feb-22 17:23	1
BDE-119/120	ND	1.11			26-Feb-22 17:23	1
BDE-99	ND		2.43		26-Feb-22 17:23	1
BDE-116	ND	1.96			26-Feb-22 17:23	1
BDE-118	ND	1.18			26-Feb-22 17:23	1
BDE-85	1.07			J	26-Feb-22 17:23	1
BDE-126	ND	0.802			26-Feb-22 17:23	1
BDE-105	ND	1.68			26-Feb-22 17:23	1
BDE-155	ND	0.296			26-Feb-22 17:23	1
BDE-128/154	ND	0.509			26-Feb-22 17:23	1
BDE-153	ND		0.889		26-Feb-22 17:23	1
BDE-139	ND		1.17		26-Feb-22 17:23	1
BDE-140	ND	0.576			26-Feb-22 17:23	1
BDE-138	ND	1.05			26-Feb-22 17:23	1
BDE-166	ND	1.54			26-Feb-22 17:23	1
BDE-148/156/169	ND	1.78			26-Feb-22 17:23	1
BDE-175	ND		0.884		26-Feb-22 17:23	1
BDE-184	ND		0.543		26-Feb-22 17:23	1
BDE-183/176	2.32			J	26-Feb-22 17:23	1
BDE-191	ND	1.02			26-Feb-22 17:23	1
BDE-180	ND	0.924			26-Feb-22 17:23	1
BDE-181/177	ND	0.917			26-Feb-22 17:23	1
BDE-190/171	ND	0.964			26-Feb-22 17:23	1
BDE-201	ND	3.94			26-Feb-22 17:23	1
BDE-204	ND	3.57			26-Feb-22 17:23	1
BDE-197	ND		3.51		26-Feb-22 17:23	1
BDE-203/200	ND	4.00			26-Feb-22 17:23	1
BDE-205	ND	8.45			26-Feb-22 17:23	1

Sample ID: Method Blank					EPA Method 1614	
Client Data			Laboratory Data			
Name:	GSI Water Solutions		Lab Sample:	B22B176-BLK1		
Project:	Eatonville		QC Batch:	B22B176	Date Extracted:	18-Feb-22
Matrix:	Aqueous		Sample Size:	1.00 L	Column:	ZB-5MS
Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	2.01			26-Feb-22 17:23	1
BDE-207	ND		5.36		26-Feb-22 17:23	1
BDE-206	ND	4.21			26-Feb-22 17:23	1
BDE-209	ND	106			26-Feb-22 17:23	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	49.7	25 - 150		26-Feb-22 17:23	1
13C-BDE-15	IS	91.2	25 - 150		26-Feb-22 17:23	1
13C-BDE-28	IS	103	25 - 150		26-Feb-22 17:23	1
13C-BDE-47	IS	109	30 - 140		26-Feb-22 17:23	1
13C-BDE-77	IS	116	25 - 150		26-Feb-22 17:23	1
13C-BDE-100	IS	115	25 - 150		26-Feb-22 17:23	1
13C-BDE-99	IS	99.3	25 - 150		26-Feb-22 17:23	1
13C-BDE-118	IS	91.2	25 - 150		26-Feb-22 17:23	1
13C-BDE-155	IS	96.4	25 - 150		26-Feb-22 17:23	1
13C-BDE-154	IS	97.6	25 - 150		26-Feb-22 17:23	1
13C-BDE-153	IS	99.8	25 - 150		26-Feb-22 17:23	1
13C-BDE-138	IS	102	25 - 150		26-Feb-22 17:23	1
13C-BDE-169	IS	105	25 - 150		26-Feb-22 17:23	1
13C-BDE-183	IS	106	25 - 150		26-Feb-22 17:23	1
13C-BDE-180	IS	111	25 - 150		26-Feb-22 17:23	1
13C-BDE-204	IS	98.3	25 - 150		26-Feb-22 17:23	1
13C-BDE-197	IS	97.8	25 - 150		26-Feb-22 17:23	1
13C-BDE-205	IS	88.6	25 - 150		26-Feb-22 17:23	1
13C-BDE-207	IS	107	25 - 150		26-Feb-22 17:23	1
13C-BDE-206	IS	96.5	25 - 150		26-Feb-22 17:23	1
13C-BDE-209	IS	76.9	20 - 200		26-Feb-22 17:23	1
13C-BDE-126	CRS	97.2	30 - 135		26-Feb-22 17:23	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: LCSD
EPA Method 1614

Name:	GSI Water Solutions	Lab Sample:	B22B176-BSD1	Date Extracted:	18-Feb-22
Project:	Eatonville	QC Batch:	B22B176	Column:	ZB-5MS
Matrix:	Aqueous	Samp Size:	1.00/1.00 L		
Date Analyzed:	26-Feb-22 14:26				
	26-Feb-22 15:25				

Analyte	LCS (pg/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (pg/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits
BDE-1	443	500	88.6		467	500	93.4	5.17		50-150	200
BDE-2	520	500	104		536	500	107	3.08		50-150	200
BDE-3	485	500	96.9		502	500	100	3.55		50-150	200
BDE-10	344	500	68.9		365	500	73.0	5.80		50-150	200
BDE-7	378	500	75.6		406	500	81.2	7.14		50-150	200
BDE-8/11	1090	1000	109		1120	1000	112	2.70		50-150	200
BDE-12	418	500	83.6		441	500	88.1	5.32		50-150	200
BDE-13	515	500	103		536	500	107	4.05		50-150	200
BDE-15	494	500	98.7		517	500	103	4.69		50-150	200
BDE-30	347	500	69.4		392	500	78.4	12.1		50-150	200
BDE-32	497	500	99.4		527	500	105	5.88		50-150	200
BDE-17	513	500	103		528	500	106	2.78		50-150	200
BDE-25	501	500	100		522	500	104	4.26		50-150	200
BDE-28/33	1090	1000	109		1060	1000	106	2.69		50-150	200
BDE-35/21	555	500	111		540	500	108	2.61		50-150	200
BDE-37	554	500	111		533	500	107	3.73		50-150	200
BDE-75/51	2090	2000	105		2180	2000	109	4.15		50-150	200
BDE-49	1060	1000	106		1100	1000	110	3.29		50-150	200
BDE-71	1050	1000	105		1100	1000	110	3.94		50-150	200
BDE-47	1020	1000	102	B	1070	1000	107	4.74	B	50-150	200
BDE-66	1070	1000	107		1160	1000	116	8.04		50-150	200
BDE-77	1030	1000	103		1100	1000	110	7.03		50-150	200
BDE-79	1120	1000	112		1000	1000	100	10.9		50-150	200
BDE-100	1030	1000	103	B	1070	1000	107	3.74	B	50-150	200
BDE-119/120	1970	2000	98.3		2010	2000	100	1.97		50-150	200
BDE-99	1030	1000	103		1070	1000	107	3.08		50-150	200
BDE-116	852	1000	85.2		879	1000	87.9	3.15		50-150	200
BDE-118	1030	1000	103		1070	1000	107	4.01		50-150	200
BDE-85	1080	1000	108	B	1160	1000	116	7.38	B	50-150	200
BDE-126	1090	1000	109		1180	1000	118	7.39		50-150	200
BDE-105	1100	1000	110		1200	1000	120	8.58		50-150	200
BDE-155	1040	1000	104		1070	1000	107	3.23		50-150	200
BDE-128/154	2050	2000	103		2120	2000	106	2.95		50-150	200
BDE-153	1000	1000	100		1060	1000	106	5.60		50-150	200
BDE-139	1030	1000	103		1070	1000	107	4.70		50-150	200
BDE-140	1070	1000	107		1130	1000	113	5.42		50-150	200
BDE-138	1020	1000	102		1090	1000	109	6.87		50-150	200
BDE-166	967	1000	96.7		1020	1000	102	5.56		50-150	200
BDE-148/156/169	2060	2000	103		2150	2000	108	4.27		50-150	200
BDE-175	2070	2000	103		2140	2000	107	3.22		50-150	200
BDE-184	2170	2000	109		2220	2000	111	2.25		50-150	200
BDE-183/176	2090	2000	104	B	2160	2000	108	3.44	B	50-150	200
BDE-191	2070	2000	104		2210	2000	111	6.62		50-150	200
BDE-180	2030	2000	101		2130	2000	106	4.82		50-150	200
BDE-181/177	1950	2000	97.4		2070	2000	104	6.12		50-150	200
BDE-190/171	4070	4000	102		4300	4000	108	5.57		50-150	200
BDE-201	2010	2000	101		2160	2000	108	6.82		50-150	200
BDE-204	1990	2000	99.6		2250	2000	112	12.0		50-150	200
BDE-197	2020	2000	101		2030	2000	102	0.647		50-150	200

Sample ID: LCSD
EPA Method 1614

Name:	GSI Water Solutions	Lab Sample:	B22B176-BSD1	Date Extracted:	18-Feb-22
Project:	Eatonville	QC Batch:	B22B176	Samp Size:	1.00/1.00 L
Matrix:	Aqueous	Column:	ZB-5MS		
Date Analyzed:	26-Feb-22 14:26				
	26-Feb-22 15:25				

Analyte	LCS (pg/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (pg/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits
BDE-203/200	1920	2000	96.0		2100	2000	105	8.84		50-150	200
BDE-205	1940	2000	96.9		2110	2000	105	8.35		50-150	200
BDE-208	4810	5000	96.1		5460	5000	109	12.7		50-150	200
BDE-207	5040	5000	101		5310	5000	106	5.25		50-150	200
BDE-206	5050	5000	101		5360	5000	107	6.06		50-150	200
BDE-209	5560	5000	111		5560	5000	111	0.0448		50-150	200

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits
13C-BDE-3	IS	48.0		46.0		30 - 140
13C-BDE-15	IS	87.6		81.3		30 - 140
13C-BDE-28	IS	106		94.0		30 - 140
13C-BDE-47	IS	103		97.4		30 - 140
13C-BDE-77	IS	121		89.4		30 - 140
13C-BDE-100	IS	112		103		30 - 140
13C-BDE-99	IS	99.4		89.8		30 - 140
13C-BDE-118	IS	91.8		82.4		30 - 140
13C-BDE-155	IS	95.7		86.7		30 - 140
13C-BDE-154	IS	98.3		92.1		30 - 140
13C-BDE-153	IS	96.7		91.2		30 - 140
13C-BDE-138	IS	102		95.2		30 - 140
13C-BDE-169	IS	103		98.0		30 - 140
13C-BDE-183	IS	95.4		92.6		30 - 140
13C-BDE-180	IS	100		95.0		30 - 140
13C-BDE-204	IS	96.5		86.9		30 - 140
13C-BDE-197	IS	98.1		92.0		30 - 140
13C-BDE-205	IS	88.0		79.6		20 - 200
13C-BDE-207	IS	101		90.3		30 - 140
13C-BDE-206	IS	93.2		85.2		30 - 140
13C-BDE-209	IS	72.8		66.9		20 - 200
13C-BDE-126	CRS	100		95.5		40 - 125

Sample ID: SW07_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 11:00

Laboratory Data

Lab Sample: 2202107-01
 QC Batch: B22B176
 Sample Size: 0.907 L
 Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.86			27-Feb-22 06:19	1
BDE-2	ND	5.07			27-Feb-22 06:19	1
BDE-3	ND	4.48			27-Feb-22 06:19	1
BDE-10	ND	0.350			27-Feb-22 06:19	1
BDE-7	ND	0.331			27-Feb-22 06:19	1
BDE-8/11	ND	0.239			27-Feb-22 06:19	1
BDE-12	ND	0.226			27-Feb-22 06:19	1
BDE-13	ND	0.207			27-Feb-22 06:19	1
BDE-15	ND	0.172			27-Feb-22 06:19	1
BDE-30	ND	0.404			27-Feb-22 06:19	1
BDE-32	ND	0.300			27-Feb-22 06:19	1
BDE-17	0.319			J	27-Feb-22 06:19	1
BDE-25	ND	0.439			27-Feb-22 06:19	1
BDE-28/33	ND		0.531		27-Feb-22 06:19	1
BDE-35/21	ND	0.265			27-Feb-22 06:19	1
BDE-37	ND	0.238			27-Feb-22 06:19	1
BDE-75/51	ND	0.157			27-Feb-22 06:19	1
BDE-49	ND	0.206			27-Feb-22 06:19	1
BDE-71	ND	0.218			27-Feb-22 06:19	1
BDE-47	7.28			J, B	27-Feb-22 06:19	1
BDE-66	ND	0.242			27-Feb-22 06:19	1
BDE-77	ND	0.136			27-Feb-22 06:19	1
BDE-79	ND	0.136			27-Feb-22 06:19	1
BDE-100	ND		0.974		27-Feb-22 06:19	1
BDE-119/120	ND	1.45			27-Feb-22 06:19	1
BDE-99	ND		4.46		27-Feb-22 06:19	1
BDE-116	ND	2.74			27-Feb-22 06:19	1
BDE-118	ND	1.65			27-Feb-22 06:19	1
BDE-85	ND	1.79			27-Feb-22 06:19	1
BDE-126	ND	1.12			27-Feb-22 06:19	1
BDE-105	ND	2.35			27-Feb-22 06:19	1
BDE-155	0.384			J	27-Feb-22 06:19	1
BDE-128/154	ND		0.632		27-Feb-22 06:19	1
BDE-153	ND		1.09		27-Feb-22 06:19	1
BDE-139	ND		0.980		27-Feb-22 06:19	1
BDE-140	ND	0.891			27-Feb-22 06:19	1
BDE-138	ND	1.08			27-Feb-22 06:19	1
BDE-166	ND	1.58			27-Feb-22 06:19	1
BDE-148/156/169	ND	1.69			27-Feb-22 06:19	1
BDE-175	ND	0.639			27-Feb-22 06:19	1
BDE-184	ND	0.490			27-Feb-22 06:19	1
BDE-183/176	ND		2.20		27-Feb-22 06:19	1
BDE-191	ND	1.13			27-Feb-22 06:19	1
BDE-180	ND	1.02			27-Feb-22 06:19	1
BDE-181/177	ND	1.01			27-Feb-22 06:19	1
BDE-190/171	ND	1.06			27-Feb-22 06:19	1
BDE-201	ND	3.28			27-Feb-22 06:19	1
BDE-204	ND	2.97			27-Feb-22 06:19	1
BDE-197	ND	2.07			27-Feb-22 06:19	1
BDE-203/200	ND	3.45			27-Feb-22 06:19	1
BDE-205	ND	7.26			27-Feb-22 06:19	1

Sample ID: SW07_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 11:00

Laboratory Data

Lab Sample: 2202107-01 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.907 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	3.49			27-Feb-22 06:19	1
BDE-207	8.14			J	27-Feb-22 06:19	1
BDE-206	ND	5.66			27-Feb-22 06:19	1
BDE-209	ND	107			27-Feb-22 06:19	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	46.8	25 - 150		27-Feb-22 06:19	1
13C-BDE-15	IS	82.6	25 - 150		27-Feb-22 06:19	1
13C-BDE-28	IS	94.2	25 - 150		27-Feb-22 06:19	1
13C-BDE-47	IS	105	30 - 140		27-Feb-22 06:19	1
13C-BDE-77	IS	104	25 - 150		27-Feb-22 06:19	1
13C-BDE-100	IS	112	25 - 150		27-Feb-22 06:19	1
13C-BDE-99	IS	93.9	25 - 150		27-Feb-22 06:19	1
13C-BDE-118	IS	82.1	25 - 150		27-Feb-22 06:19	1
13C-BDE-155	IS	93.5	25 - 150		27-Feb-22 06:19	1
13C-BDE-154	IS	95.7	25 - 150		27-Feb-22 06:19	1
13C-BDE-153	IS	95.8	25 - 150		27-Feb-22 06:19	1
13C-BDE-138	IS	97.1	25 - 150		27-Feb-22 06:19	1
13C-BDE-169	IS	99.8	25 - 150		27-Feb-22 06:19	1
13C-BDE-183	IS	99.5	25 - 150		27-Feb-22 06:19	1
13C-BDE-180	IS	103	25 - 150		27-Feb-22 06:19	1
13C-BDE-204	IS	95.0	25 - 150		27-Feb-22 06:19	1
13C-BDE-197	IS	87.8	25 - 150		27-Feb-22 06:19	1
13C-BDE-205	IS	79.1	25 - 150		27-Feb-22 06:19	1
13C-BDE-207	IS	90.5	25 - 150		27-Feb-22 06:19	1
13C-BDE-206	IS	87.6	25 - 150		27-Feb-22 06:19	1
13C-BDE-209	IS	66.4	20 - 200		27-Feb-22 06:19	1
13C-BDE-126	CRS	98.9	30 - 135		27-Feb-22 06:19	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW08_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
Project: Eatonville
Matrix: Aqueous
Date Collected: 02-Feb-22 12:10

Laboratory Data

Lab Sample: 2202107-02 Date Received: 08-Feb-22 13:03
QC Batch: B22B176 Date Extracted: 18-Feb-22
Sample Size: 0.866 L Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	9.19			27-Feb-22 07:18	1
BDE-2	ND	5.92			27-Feb-22 07:18	1
BDE-3	ND	5.24			27-Feb-22 07:18	1
BDE-10	ND	0.405			27-Feb-22 07:18	1
BDE-7	ND	0.383			27-Feb-22 07:18	1
BDE-8/11	ND	0.277			27-Feb-22 07:18	1
BDE-12	ND	0.262			27-Feb-22 07:18	1
BDE-13	ND	0.240			27-Feb-22 07:18	1
BDE-15	ND	0.199			27-Feb-22 07:18	1
BDE-30	ND	0.308			27-Feb-22 07:18	1
BDE-32	ND	0.228			27-Feb-22 07:18	1
BDE-17	ND	0.238			27-Feb-22 07:18	1
BDE-25	ND	0.334			27-Feb-22 07:18	1
BDE-28/33	ND		0.567		27-Feb-22 07:18	1
BDE-35/21	ND	0.202			27-Feb-22 07:18	1
BDE-37	ND	0.181			27-Feb-22 07:18	1
BDE-75/51	ND	0.211			27-Feb-22 07:18	1
BDE-49	ND	0.277			27-Feb-22 07:18	1
BDE-71	ND	0.294			27-Feb-22 07:18	1
BDE-47	7.36			J, B	27-Feb-22 07:18	1
BDE-66	ND	0.304			27-Feb-22 07:18	1
BDE-77	ND		0.149		27-Feb-22 07:18	1
BDE-79	ND	0.183			27-Feb-22 07:18	1
BDE-100	ND		1.18		27-Feb-22 07:18	1
BDE-119/120	ND	1.18			27-Feb-22 07:18	1
BDE-99	5.03			J	27-Feb-22 07:18	1
BDE-116	ND	2.12			27-Feb-22 07:18	1
BDE-118	ND	1.27			27-Feb-22 07:18	1
BDE-85	ND	1.38			27-Feb-22 07:18	1
BDE-126	ND	0.867			27-Feb-22 07:18	1
BDE-105	ND	1.81			27-Feb-22 07:18	1
BDE-155	ND	0.353			27-Feb-22 07:18	1
BDE-128/154	ND	0.580			27-Feb-22 07:18	1
BDE-153	ND	0.689			27-Feb-22 07:18	1
BDE-139	ND		0.984		27-Feb-22 07:18	1
BDE-140	ND	0.696			27-Feb-22 07:18	1
BDE-138	ND	1.03			27-Feb-22 07:18	1
BDE-166	ND	1.51			27-Feb-22 07:18	1
BDE-148/156/169	ND	1.73			27-Feb-22 07:18	1
BDE-175	ND	0.765			27-Feb-22 07:18	1
BDE-184	ND	0.586			27-Feb-22 07:18	1
BDE-183/176	ND	0.744			27-Feb-22 07:18	1
BDE-191	ND	1.16			27-Feb-22 07:18	1
BDE-180	ND	1.05			27-Feb-22 07:18	1
BDE-181/177	ND	1.04			27-Feb-22 07:18	1
BDE-190/171	ND	1.09			27-Feb-22 07:18	1
BDE-201	ND	2.72			27-Feb-22 07:18	1
BDE-204	ND	2.47			27-Feb-22 07:18	1
BDE-197	ND	1.76			27-Feb-22 07:18	1
BDE-203/200	ND	2.93			27-Feb-22 07:18	1
BDE-205	ND	5.97			27-Feb-22 07:18	1

Sample ID: SW08_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 12:10

Laboratory Data

Lab Sample: 2202107-02 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.866 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	2.86			27-Feb-22 07:18	1
BDE-207	ND		6.25		27-Feb-22 07:18	1
BDE-206	ND	4.93			27-Feb-22 07:18	1
BDE-209	ND	95.8			27-Feb-22 07:18	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	44.5	25 - 150		27-Feb-22 07:18	1
13C-BDE-15	IS	81.2	25 - 150		27-Feb-22 07:18	1
13C-BDE-28	IS	92.7	25 - 150		27-Feb-22 07:18	1
13C-BDE-47	IS	103	30 - 140		27-Feb-22 07:18	1
13C-BDE-77	IS	110	25 - 150		27-Feb-22 07:18	1
13C-BDE-100	IS	111	25 - 150		27-Feb-22 07:18	1
13C-BDE-99	IS	94.7	25 - 150		27-Feb-22 07:18	1
13C-BDE-118	IS	86.7	25 - 150		27-Feb-22 07:18	1
13C-BDE-155	IS	96.0	25 - 150		27-Feb-22 07:18	1
13C-BDE-154	IS	97.9	25 - 150		27-Feb-22 07:18	1
13C-BDE-153	IS	98.0	25 - 150		27-Feb-22 07:18	1
13C-BDE-138	IS	97.3	25 - 150		27-Feb-22 07:18	1
13C-BDE-169	IS	98.2	25 - 150		27-Feb-22 07:18	1
13C-BDE-183	IS	108	25 - 150		27-Feb-22 07:18	1
13C-BDE-180	IS	110	25 - 150		27-Feb-22 07:18	1
13C-BDE-204	IS	97.6	25 - 150		27-Feb-22 07:18	1
13C-BDE-197	IS	93.2	25 - 150		27-Feb-22 07:18	1
13C-BDE-205	IS	80.5	25 - 150		27-Feb-22 07:18	1
13C-BDE-207	IS	92.1	25 - 150		27-Feb-22 07:18	1
13C-BDE-206	IS	89.6	25 - 150		27-Feb-22 07:18	1
13C-BDE-209	IS	68.2	20 - 200		27-Feb-22 07:18	1
13C-BDE-126	CRS	93.8	30 - 135		27-Feb-22 07:18	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW09_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 13:25

Laboratory Data

Lab Sample: 2202107-03
 QC Batch: B22B176
 Sample Size: 0.936 L
 Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.91			27-Feb-22 08:17	1
BDE-2	ND	5.74			27-Feb-22 08:17	1
BDE-3	ND	5.08			27-Feb-22 08:17	1
BDE-10	ND	0.354			27-Feb-22 08:17	1
BDE-7	ND	0.335			27-Feb-22 08:17	1
BDE-8/11	ND	0.242			27-Feb-22 08:17	1
BDE-12	ND	0.229			27-Feb-22 08:17	1
BDE-13	ND	0.210			27-Feb-22 08:17	1
BDE-15	ND	0.174			27-Feb-22 08:17	1
BDE-30	ND	0.302			27-Feb-22 08:17	1
BDE-32	ND	0.224			27-Feb-22 08:17	1
BDE-17	ND	0.233			27-Feb-22 08:17	1
BDE-25	ND	0.328			27-Feb-22 08:17	1
BDE-28/33	ND		0.620		27-Feb-22 08:17	1
BDE-35/21	ND	0.198			27-Feb-22 08:17	1
BDE-37	ND	0.178			27-Feb-22 08:17	1
BDE-75/51	ND	0.100			27-Feb-22 08:17	1
BDE-49	ND	0.132			27-Feb-22 08:17	1
BDE-71	ND	0.140			27-Feb-22 08:17	1
BDE-47	7.54			J, B	27-Feb-22 08:17	1
BDE-66	ND	0.170			27-Feb-22 08:17	1
BDE-77	ND	0.0959			27-Feb-22 08:17	1
BDE-79	ND	0.0870			27-Feb-22 08:17	1
BDE-100	1.41			J, B	27-Feb-22 08:17	1
BDE-119/120	ND	1.44			27-Feb-22 08:17	1
BDE-99	ND		5.52		27-Feb-22 08:17	1
BDE-116	ND	2.52			27-Feb-22 08:17	1
BDE-118	ND	1.52			27-Feb-22 08:17	1
BDE-85	ND	1.65			27-Feb-22 08:17	1
BDE-126	ND	1.03			27-Feb-22 08:17	1
BDE-105	ND	2.16			27-Feb-22 08:17	1
BDE-155	ND	0.353			27-Feb-22 08:17	1
BDE-128/154	ND	0.625			27-Feb-22 08:17	1
BDE-153	ND		1.92		27-Feb-22 08:17	1
BDE-139	ND		1.36		27-Feb-22 08:17	1
BDE-140	ND	0.707			27-Feb-22 08:17	1
BDE-138	ND	0.877			27-Feb-22 08:17	1
BDE-166	ND	1.29			27-Feb-22 08:17	1
BDE-148/156/169	ND	1.35			27-Feb-22 08:17	1
BDE-175	ND	0.702			27-Feb-22 08:17	1
BDE-184	ND	0.538			27-Feb-22 08:17	1
BDE-183/176	2.35			J, B	27-Feb-22 08:17	1
BDE-191	ND	1.48			27-Feb-22 08:17	1
BDE-180	ND	1.34			27-Feb-22 08:17	1
BDE-181/177	ND	1.33			27-Feb-22 08:17	1
BDE-190/171	ND	1.40			27-Feb-22 08:17	1
BDE-201	ND	2.73			27-Feb-22 08:17	1
BDE-204	ND	2.48			27-Feb-22 08:17	1
BDE-197	ND	1.83			27-Feb-22 08:17	1
BDE-203/200	ND	3.05			27-Feb-22 08:17	1
BDE-205	ND	6.17			27-Feb-22 08:17	1

Sample ID: SW09_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 13:25

Laboratory Data

Lab Sample: 2202107-03 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.936 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	2.75			27-Feb-22 08:17	1
BDE-207	ND		6.52		27-Feb-22 08:17	1
BDE-206	ND	5.34			27-Feb-22 08:17	1
BDE-209	ND	102			27-Feb-22 08:17	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	40.6	25 - 150		27-Feb-22 08:17	1
13C-BDE-15	IS	79.3	25 - 150		27-Feb-22 08:17	1
13C-BDE-28	IS	87.9	25 - 150		27-Feb-22 08:17	1
13C-BDE-47	IS	96.7	30 - 140		27-Feb-22 08:17	1
13C-BDE-77	IS	91.0	25 - 150		27-Feb-22 08:17	1
13C-BDE-100	IS	98.7	25 - 150		27-Feb-22 08:17	1
13C-BDE-99	IS	85.4	25 - 150		27-Feb-22 08:17	1
13C-BDE-118	IS	77.4	25 - 150		27-Feb-22 08:17	1
13C-BDE-155	IS	94.7	25 - 150		27-Feb-22 08:17	1
13C-BDE-154	IS	91.8	25 - 150		27-Feb-22 08:17	1
13C-BDE-153	IS	89.9	25 - 150		27-Feb-22 08:17	1
13C-BDE-138	IS	89.8	25 - 150		27-Feb-22 08:17	1
13C-BDE-169	IS	93.5	25 - 150		27-Feb-22 08:17	1
13C-BDE-183	IS	97.7	25 - 150		27-Feb-22 08:17	1
13C-BDE-180	IS	102	25 - 150		27-Feb-22 08:17	1
13C-BDE-204	IS	87.6	25 - 150		27-Feb-22 08:17	1
13C-BDE-197	IS	87.3	25 - 150		27-Feb-22 08:17	1
13C-BDE-205	IS	77.1	25 - 150		27-Feb-22 08:17	1
13C-BDE-207	IS	88.6	25 - 150		27-Feb-22 08:17	1
13C-BDE-206	IS	84.9	25 - 150		27-Feb-22 08:17	1
13C-BDE-209	IS	64.5	20 - 200		27-Feb-22 08:17	1
13C-BDE-126	CRS	93.4	30 - 135		27-Feb-22 08:17	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW10_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 14:22

Laboratory Data

Lab Sample: 2202107-04 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.907 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.58			27-Feb-22 09:16	1
BDE-2	ND	4.89			27-Feb-22 09:16	1
BDE-3	ND	4.32			27-Feb-22 09:16	1
BDE-10	ND	0.381			27-Feb-22 09:16	1
BDE-7	ND	0.360			27-Feb-22 09:16	1
BDE-8/11	ND	0.261			27-Feb-22 09:16	1
BDE-12	ND	0.246			27-Feb-22 09:16	1
BDE-13	ND	0.226			27-Feb-22 09:16	1
BDE-15	ND	0.187			27-Feb-22 09:16	1
BDE-30	ND	0.369			27-Feb-22 09:16	1
BDE-32	ND	0.274			27-Feb-22 09:16	1
BDE-17	ND	0.285			27-Feb-22 09:16	1
BDE-25	ND	0.401			27-Feb-22 09:16	1
BDE-28/33	0.673			J	27-Feb-22 09:16	1
BDE-35/21	ND	0.242			27-Feb-22 09:16	1
BDE-37	ND	0.217			27-Feb-22 09:16	1
BDE-75/51	ND	0.145			27-Feb-22 09:16	1
BDE-49	ND	0.190			27-Feb-22 09:16	1
BDE-71	ND	0.202			27-Feb-22 09:16	1
BDE-47	9.30			J, B	27-Feb-22 09:16	1
BDE-66	ND	0.232			27-Feb-22 09:16	1
BDE-77	ND	0.130			27-Feb-22 09:16	1
BDE-79	ND	0.125			27-Feb-22 09:16	1
BDE-100	1.50			J, B	27-Feb-22 09:16	1
BDE-119/120	ND	1.46			27-Feb-22 09:16	1
BDE-99	ND		6.65		27-Feb-22 09:16	1
BDE-116	ND	2.71			27-Feb-22 09:16	1
BDE-118	ND	1.63			27-Feb-22 09:16	1
BDE-85	ND	1.77			27-Feb-22 09:16	1
BDE-126	ND	1.11			27-Feb-22 09:16	1
BDE-105	ND	2.32			27-Feb-22 09:16	1
BDE-155	ND	0.298			27-Feb-22 09:16	1
BDE-128/154	ND		0.813		27-Feb-22 09:16	1
BDE-153	ND		2.07		27-Feb-22 09:16	1
BDE-139	ND	0.496			27-Feb-22 09:16	1
BDE-140	ND	0.555			27-Feb-22 09:16	1
BDE-138	ND	0.824			27-Feb-22 09:16	1
BDE-166	ND	1.21			27-Feb-22 09:16	1
BDE-148/156/169	ND	1.32			27-Feb-22 09:16	1
BDE-175	ND	0.811			27-Feb-22 09:16	1
BDE-184	ND	0.622			27-Feb-22 09:16	1
BDE-183/176	ND		2.72		27-Feb-22 09:16	1
BDE-191	ND	1.01			27-Feb-22 09:16	1
BDE-180	ND	0.912			27-Feb-22 09:16	1
BDE-181/177	ND	0.904			27-Feb-22 09:16	1
BDE-190/171	ND	0.950			27-Feb-22 09:16	1
BDE-201	ND	3.83			27-Feb-22 09:16	1
BDE-204	ND		2.21		27-Feb-22 09:16	1
BDE-197	ND		1.21		27-Feb-22 09:16	1
BDE-203/200	ND	4.04			27-Feb-22 09:16	1
BDE-205	ND	8.29			27-Feb-22 09:16	1

Sample ID: SW10_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 14:22

Laboratory Data

Lab Sample: 2202107-04 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.907 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND		3.33		27-Feb-22 09:16	1
BDE-207	ND		4.36		27-Feb-22 09:16	1
BDE-206	ND	4.90			27-Feb-22 09:16	1
BDE-209	ND	110			27-Feb-22 09:16	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	46.5	25 - 150		27-Feb-22 09:16	1
13C-BDE-15	IS	78.3	25 - 150		27-Feb-22 09:16	1
13C-BDE-28	IS	88.3	25 - 150		27-Feb-22 09:16	1
13C-BDE-47	IS	94.2	30 - 140		27-Feb-22 09:16	1
13C-BDE-77	IS	90.4	25 - 150		27-Feb-22 09:16	1
13C-BDE-100	IS	104	25 - 150		27-Feb-22 09:16	1
13C-BDE-99	IS	88.9	25 - 150		27-Feb-22 09:16	1
13C-BDE-118	IS	81.8	25 - 150		27-Feb-22 09:16	1
13C-BDE-155	IS	89.4	25 - 150		27-Feb-22 09:16	1
13C-BDE-154	IS	94.0	25 - 150		27-Feb-22 09:16	1
13C-BDE-153	IS	93.3	25 - 150		27-Feb-22 09:16	1
13C-BDE-138	IS	93.3	25 - 150		27-Feb-22 09:16	1
13C-BDE-169	IS	94.7	25 - 150		27-Feb-22 09:16	1
13C-BDE-183	IS	98.4	25 - 150		27-Feb-22 09:16	1
13C-BDE-180	IS	100	25 - 150		27-Feb-22 09:16	1
13C-BDE-204	IS	95.2	25 - 150		27-Feb-22 09:16	1
13C-BDE-197	IS	85.4	25 - 150		27-Feb-22 09:16	1
13C-BDE-205	IS	77.3	25 - 150		27-Feb-22 09:16	1
13C-BDE-207	IS	86.7	25 - 150		27-Feb-22 09:16	1
13C-BDE-206	IS	81.1	25 - 150		27-Feb-22 09:16	1
13C-BDE-209	IS	59.1	20 - 200		27-Feb-22 09:16	1
13C-BDE-126	CRS	92.7	30 - 135		27-Feb-22 09:16	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW11_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 15:15

Laboratory Data

Lab Sample: 2202107-05 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.890 L Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	9.20			27-Feb-22 10:15	1
BDE-2	ND	5.93			27-Feb-22 10:15	1
BDE-3	ND	5.25			27-Feb-22 10:15	1
BDE-10	ND	0.359			27-Feb-22 10:15	1
BDE-7	ND	0.340			27-Feb-22 10:15	1
BDE-8/11	ND	0.246			27-Feb-22 10:15	1
BDE-12	ND	0.232			27-Feb-22 10:15	1
BDE-13	ND	0.213			27-Feb-22 10:15	1
BDE-15	ND	0.176			27-Feb-22 10:15	1
BDE-30	ND	0.311			27-Feb-22 10:15	1
BDE-32	ND	0.230			27-Feb-22 10:15	1
BDE-17	ND	0.240			27-Feb-22 10:15	1
BDE-25	ND	0.337			27-Feb-22 10:15	1
BDE-28/33	ND		0.410		27-Feb-22 10:15	1
BDE-35/21	ND	0.204			27-Feb-22 10:15	1
BDE-37	ND	0.183			27-Feb-22 10:15	1
BDE-75/51	ND	0.146			27-Feb-22 10:15	1
BDE-49	ND	0.191			27-Feb-22 10:15	1
BDE-71	ND	0.203			27-Feb-22 10:15	1
BDE-47	11.9			J, B	27-Feb-22 10:15	1
BDE-66	ND	0.227			27-Feb-22 10:15	1
BDE-77	ND		0.211		27-Feb-22 10:15	1
BDE-79	ND	0.126			27-Feb-22 10:15	1
BDE-100	1.86			J, B	27-Feb-22 10:15	1
BDE-119/120	ND	1.19			27-Feb-22 10:15	1
BDE-99	7.99			J	27-Feb-22 10:15	1
BDE-116	ND	2.18			27-Feb-22 10:15	1
BDE-118	ND	1.31			27-Feb-22 10:15	1
BDE-85	ND	1.43			27-Feb-22 10:15	1
BDE-126	ND	0.893			27-Feb-22 10:15	1
BDE-105	ND	1.87			27-Feb-22 10:15	1
BDE-155	ND	0.336			27-Feb-22 10:15	1
BDE-128/154	ND		1.09		27-Feb-22 10:15	1
BDE-153	ND		1.27		27-Feb-22 10:15	1
BDE-139	ND		0.731		27-Feb-22 10:15	1
BDE-140	ND	0.653			27-Feb-22 10:15	1
BDE-138	ND	1.07			27-Feb-22 10:15	1
BDE-166	ND	1.57			27-Feb-22 10:15	1
BDE-148/156/169	ND	1.90			27-Feb-22 10:15	1
BDE-175	ND	0.716			27-Feb-22 10:15	1
BDE-184	ND	0.549			27-Feb-22 10:15	1
BDE-183/176	ND		2.81		27-Feb-22 10:15	1
BDE-191	ND	1.28			27-Feb-22 10:15	1
BDE-180	ND	1.16			27-Feb-22 10:15	1
BDE-181/177	ND	1.15			27-Feb-22 10:15	1
BDE-190/171	ND	1.21			27-Feb-22 10:15	1
BDE-201	ND	2.94			27-Feb-22 10:15	1
BDE-204	ND	2.67			27-Feb-22 10:15	1
BDE-197	ND	1.83			27-Feb-22 10:15	1
BDE-203/200	ND	3.05			27-Feb-22 10:15	1
BDE-205	ND	6.24			27-Feb-22 10:15	1

Sample ID: SW11_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
Project: Eatonville
Matrix: Aqueous
Date Collected: 02-Feb-22 15:15

Laboratory Data

Lab Sample: 2202107-05 Date Received: 08-Feb-22 13:03
QC Batch: B22B176 Date Extracted: 18-Feb-22
Sample Size: 0.890 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	3.85			27-Feb-22 10:15	1
BDE-207	8.00			J	27-Feb-22 10:15	1
BDE-206	ND	6.12			27-Feb-22 10:15	1
BDE-209	ND	92.7			27-Feb-22 10:15	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	54.0	25 - 150		27-Feb-22 10:15	1
13C-BDE-15	IS	95.1	25 - 150		27-Feb-22 10:15	1
13C-BDE-28	IS	103	25 - 150		27-Feb-22 10:15	1
13C-BDE-47	IS	115	30 - 140		27-Feb-22 10:15	1
13C-BDE-77	IS	116	25 - 150		27-Feb-22 10:15	1
13C-BDE-100	IS	122	25 - 150		27-Feb-22 10:15	1
13C-BDE-99	IS	101	25 - 150		27-Feb-22 10:15	1
13C-BDE-118	IS	91.3	25 - 150		27-Feb-22 10:15	1
13C-BDE-155	IS	102	25 - 150		27-Feb-22 10:15	1
13C-BDE-154	IS	105	25 - 150		27-Feb-22 10:15	1
13C-BDE-153	IS	104	25 - 150		27-Feb-22 10:15	1
13C-BDE-138	IS	104	25 - 150		27-Feb-22 10:15	1
13C-BDE-169	IS	105	25 - 150		27-Feb-22 10:15	1
13C-BDE-183	IS	108	25 - 150		27-Feb-22 10:15	1
13C-BDE-180	IS	114	25 - 150		27-Feb-22 10:15	1
13C-BDE-204	IS	105	25 - 150		27-Feb-22 10:15	1
13C-BDE-197	IS	101	25 - 150		27-Feb-22 10:15	1
13C-BDE-205	IS	90.2	25 - 150		27-Feb-22 10:15	1
13C-BDE-207	IS	102	25 - 150		27-Feb-22 10:15	1
13C-BDE-206	IS	100	25 - 150		27-Feb-22 10:15	1
13C-BDE-209	IS	72.8	20 - 200		27-Feb-22 10:15	1
13C-BDE-126	CRS	97.5	30 - 135		27-Feb-22 10:15	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW12_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 16:00

Laboratory Data

Lab Sample: 2202107-06
 QC Batch: B22B176
 Sample Size: 0.915 L
 Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	6.93			27-Feb-22 11:14	1
BDE-2	ND	4.47			27-Feb-22 11:14	1
BDE-3	ND	3.95			27-Feb-22 11:14	1
BDE-10	ND	0.380			27-Feb-22 11:14	1
BDE-7	ND	0.359			27-Feb-22 11:14	1
BDE-8/11	ND	0.260			27-Feb-22 11:14	1
BDE-12	ND	0.246			27-Feb-22 11:14	1
BDE-13	ND	0.225			27-Feb-22 11:14	1
BDE-15	ND	0.187			27-Feb-22 11:14	1
BDE-30	ND	0.347			27-Feb-22 11:14	1
BDE-32	ND	0.257			27-Feb-22 11:14	1
BDE-17	ND	0.268			27-Feb-22 11:14	1
BDE-25	ND	0.377			27-Feb-22 11:14	1
BDE-28/33	ND		0.455		27-Feb-22 11:14	1
BDE-35/21	ND	0.227			27-Feb-22 11:14	1
BDE-37	ND	0.204			27-Feb-22 11:14	1
BDE-75/51	ND	0.203			27-Feb-22 11:14	1
BDE-49	ND	0.266			27-Feb-22 11:14	1
BDE-71	ND	0.283			27-Feb-22 11:14	1
BDE-47	6.17			J, B	27-Feb-22 11:14	1
BDE-66	ND	0.342			27-Feb-22 11:14	1
BDE-77	ND	0.192			27-Feb-22 11:14	1
BDE-79	ND	0.176			27-Feb-22 11:14	1
BDE-100	ND		0.985		27-Feb-22 11:14	1
BDE-119/120	ND	1.21			27-Feb-22 11:14	1
BDE-99	3.94			J	27-Feb-22 11:14	1
BDE-116	ND	2.21			27-Feb-22 11:14	1
BDE-118	ND	1.33			27-Feb-22 11:14	1
BDE-85	ND	1.45			27-Feb-22 11:14	1
BDE-126	ND	0.905			27-Feb-22 11:14	1
BDE-105	ND	1.89			27-Feb-22 11:14	1
BDE-155	ND	0.302			27-Feb-22 11:14	1
BDE-128/154	ND	0.486			27-Feb-22 11:14	1
BDE-153	ND		1.13		27-Feb-22 11:14	1
BDE-139	ND		1.07		27-Feb-22 11:14	1
BDE-140	ND	0.550			27-Feb-22 11:14	1
BDE-138	ND	0.705			27-Feb-22 11:14	1
BDE-166	ND	1.04			27-Feb-22 11:14	1
BDE-148/156/169	ND	1.05			27-Feb-22 11:14	1
BDE-175	ND	0.508			27-Feb-22 11:14	1
BDE-184	ND	0.390			27-Feb-22 11:14	1
BDE-183/176	ND		1.83		27-Feb-22 11:14	1
BDE-191	ND	1.29			27-Feb-22 11:14	1
BDE-180	ND	1.16			27-Feb-22 11:14	1
BDE-181/177	ND	1.15			27-Feb-22 11:14	1
BDE-190/171	ND		0.878		27-Feb-22 11:14	1
BDE-201	ND	1.90			27-Feb-22 11:14	1
BDE-204	ND	1.72			27-Feb-22 11:14	1
BDE-197	ND	1.20			27-Feb-22 11:14	1
BDE-203/200	ND	2.00			27-Feb-22 11:14	1
BDE-205	ND	4.29			27-Feb-22 11:14	1

Sample ID: SW12_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 16:00

Laboratory Data

Lab Sample: 2202107-06 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.915 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	4.03			27-Feb-22 11:14	1
BDE-207	ND	4.30			27-Feb-22 11:14	1
BDE-206	ND	5.95			27-Feb-22 11:14	1
BDE-209	ND	101			27-Feb-22 11:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	51.0	25 - 150		27-Feb-22 11:14	1
13C-BDE-15	IS	85.8	25 - 150		27-Feb-22 11:14	1
13C-BDE-28	IS	94.8	25 - 150		27-Feb-22 11:14	1
13C-BDE-47	IS	102	30 - 140		27-Feb-22 11:14	1
13C-BDE-77	IS	94.8	25 - 150		27-Feb-22 11:14	1
13C-BDE-100	IS	111	25 - 150		27-Feb-22 11:14	1
13C-BDE-99	IS	94.2	25 - 150		27-Feb-22 11:14	1
13C-BDE-118	IS	85.7	25 - 150		27-Feb-22 11:14	1
13C-BDE-155	IS	93.5	25 - 150		27-Feb-22 11:14	1
13C-BDE-154	IS	96.6	25 - 150		27-Feb-22 11:14	1
13C-BDE-153	IS	97.4	25 - 150		27-Feb-22 11:14	1
13C-BDE-138	IS	97.5	25 - 150		27-Feb-22 11:14	1
13C-BDE-169	IS	101	25 - 150		27-Feb-22 11:14	1
13C-BDE-183	IS	100	25 - 150		27-Feb-22 11:14	1
13C-BDE-180	IS	105	25 - 150		27-Feb-22 11:14	1
13C-BDE-204	IS	94.7	25 - 150		27-Feb-22 11:14	1
13C-BDE-197	IS	95.4	25 - 150		27-Feb-22 11:14	1
13C-BDE-205	IS	79.9	25 - 150		27-Feb-22 11:14	1
13C-BDE-207	IS	91.3	25 - 150		27-Feb-22 11:14	1
13C-BDE-206	IS	88.7	25 - 150		27-Feb-22 11:14	1
13C-BDE-209	IS	67.9	20 - 200		27-Feb-22 11:14	1
13C-BDE-126	CRS	91.8	30 - 135		27-Feb-22 11:14	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW13_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 17:25

Laboratory Data

Lab Sample: 2202107-07 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.924 L Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.14			27-Feb-22 12:13	1
BDE-2	ND	4.60			27-Feb-22 12:13	1
BDE-3	ND	4.07			27-Feb-22 12:13	1
BDE-10	ND	0.363			27-Feb-22 12:13	1
BDE-7	ND	0.344			27-Feb-22 12:13	1
BDE-8/11	ND	0.249			27-Feb-22 12:13	1
BDE-12	ND	0.235			27-Feb-22 12:13	1
BDE-13	ND	0.215			27-Feb-22 12:13	1
BDE-15	ND	0.179			27-Feb-22 12:13	1
BDE-30	ND	0.201			27-Feb-22 12:13	1
BDE-32	ND	0.149			27-Feb-22 12:13	1
BDE-17	ND	0.155			27-Feb-22 12:13	1
BDE-25	ND	0.218			27-Feb-22 12:13	1
BDE-28/33	ND		0.342		27-Feb-22 12:13	1
BDE-35/21	ND	0.131			27-Feb-22 12:13	1
BDE-37	ND	0.118			27-Feb-22 12:13	1
BDE-75/51	ND	0.129			27-Feb-22 12:13	1
BDE-49	ND		0.251		27-Feb-22 12:13	1
BDE-71	ND	0.179			27-Feb-22 12:13	1
BDE-47	7.53			J, B	27-Feb-22 12:13	1
BDE-66	ND	0.214			27-Feb-22 12:13	1
BDE-77	ND		0.158		27-Feb-22 12:13	1
BDE-79	ND	0.112			27-Feb-22 12:13	1
BDE-100	ND		0.543		27-Feb-22 12:13	1
BDE-119/120	ND		0.726		27-Feb-22 12:13	1
BDE-99	2.84			J	27-Feb-22 12:13	1
BDE-116	ND	2.35			27-Feb-22 12:13	1
BDE-118	ND	1.42			27-Feb-22 12:13	1
BDE-85	ND	1.54			27-Feb-22 12:13	1
BDE-126	ND	0.964			27-Feb-22 12:13	1
BDE-105	ND	2.02			27-Feb-22 12:13	1
BDE-155	ND	0.358			27-Feb-22 12:13	1
BDE-128/154	ND	0.585			27-Feb-22 12:13	1
BDE-153	ND		0.776		27-Feb-22 12:13	1
BDE-139	0.837			J	27-Feb-22 12:13	1
BDE-140	ND	0.699			27-Feb-22 12:13	1
BDE-138	ND	0.954			27-Feb-22 12:13	1
BDE-166	ND	1.40			27-Feb-22 12:13	1
BDE-148/156/169	ND	1.49			27-Feb-22 12:13	1
BDE-175	ND	1.16			27-Feb-22 12:13	1
BDE-184	ND	0.888			27-Feb-22 12:13	1
BDE-183/176	2.08			J, B	27-Feb-22 12:13	1
BDE-191	ND	1.40			27-Feb-22 12:13	1
BDE-180	ND	1.27			27-Feb-22 12:13	1
BDE-181/177	ND	1.26			27-Feb-22 12:13	1
BDE-190/171	ND	1.32			27-Feb-22 12:13	1
BDE-201	ND	1.94			27-Feb-22 12:13	1
BDE-204	ND		2.53		27-Feb-22 12:13	1
BDE-197	ND	1.22			27-Feb-22 12:13	1
BDE-203/200	ND	2.03			27-Feb-22 12:13	1
BDE-205	ND	4.15			27-Feb-22 12:13	1

Sample ID: SW13_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 17:25

Laboratory Data

Lab Sample: 2202107-07 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.924 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	2.34			27-Feb-22 12:13	1
BDE-207	ND	2.50			27-Feb-22 12:13	1
BDE-206	ND	4.83			27-Feb-22 12:13	1
BDE-209	ND	123			27-Feb-22 12:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	49.1	25 - 150		27-Feb-22 12:13	1
13C-BDE-15	IS	91.3	25 - 150		27-Feb-22 12:13	1
13C-BDE-28	IS	106	25 - 150		27-Feb-22 12:13	1
13C-BDE-47	IS	110	30 - 140		27-Feb-22 12:13	1
13C-BDE-77	IS	103	25 - 150		27-Feb-22 12:13	1
13C-BDE-100	IS	118	25 - 150		27-Feb-22 12:13	1
13C-BDE-99	IS	101	25 - 150		27-Feb-22 12:13	1
13C-BDE-118	IS	92.0	25 - 150		27-Feb-22 12:13	1
13C-BDE-155	IS	97.3	25 - 150		27-Feb-22 12:13	1
13C-BDE-154	IS	102	25 - 150		27-Feb-22 12:13	1
13C-BDE-153	IS	100	25 - 150		27-Feb-22 12:13	1
13C-BDE-138	IS	102	25 - 150		27-Feb-22 12:13	1
13C-BDE-169	IS	102	25 - 150		27-Feb-22 12:13	1
13C-BDE-183	IS	112	25 - 150		27-Feb-22 12:13	1
13C-BDE-180	IS	115	25 - 150		27-Feb-22 12:13	1
13C-BDE-204	IS	99.0	25 - 150		27-Feb-22 12:13	1
13C-BDE-197	IS	97.4	25 - 150		27-Feb-22 12:13	1
13C-BDE-205	IS	83.9	25 - 150		27-Feb-22 12:13	1
13C-BDE-207	IS	94.0	25 - 150		27-Feb-22 12:13	1
13C-BDE-206	IS	87.2	25 - 150		27-Feb-22 12:13	1
13C-BDE-209	IS	64.0	20 - 200		27-Feb-22 12:13	1
13C-BDE-126	CRS	101	30 - 135		27-Feb-22 12:13	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW109_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 13:30

Laboratory Data

Lab Sample: 2202107-08
 QC Batch: B22B176
 Sample Size: 0.893 L
 Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.47			27-Feb-22 13:11	1
BDE-2	ND	4.81			27-Feb-22 13:11	1
BDE-3	ND	4.26			27-Feb-22 13:11	1
BDE-10	ND	0.391			27-Feb-22 13:11	1
BDE-7	ND	0.370			27-Feb-22 13:11	1
BDE-8/11	ND	0.268			27-Feb-22 13:11	1
BDE-12	ND	0.253			27-Feb-22 13:11	1
BDE-13	ND	0.232			27-Feb-22 13:11	1
BDE-15	ND	0.192			27-Feb-22 13:11	1
BDE-30	ND	0.297			27-Feb-22 13:11	1
BDE-32	ND	0.220			27-Feb-22 13:11	1
BDE-17	ND		0.333		27-Feb-22 13:11	1
BDE-25	ND	0.322			27-Feb-22 13:11	1
BDE-28/33	ND		1.10		27-Feb-22 13:11	1
BDE-35/21	ND	0.194			27-Feb-22 13:11	1
BDE-37	ND	0.175			27-Feb-22 13:11	1
BDE-75/51	ND	0.181			27-Feb-22 13:11	1
BDE-49	ND	0.237			27-Feb-22 13:11	1
BDE-71	ND	0.252			27-Feb-22 13:11	1
BDE-47	11.8			J, B	27-Feb-22 13:11	1
BDE-66	ND	0.242			27-Feb-22 13:11	1
BDE-77	ND	0.136			27-Feb-22 13:11	1
BDE-79	ND	0.157			27-Feb-22 13:11	1
BDE-100	ND		1.27		27-Feb-22 13:11	1
BDE-119/120	ND		0.796		27-Feb-22 13:11	1
BDE-99	ND		4.69		27-Feb-22 13:11	1
BDE-116	ND	1.66			27-Feb-22 13:11	1
BDE-118	ND	0.998			27-Feb-22 13:11	1
BDE-85	ND	1.08			27-Feb-22 13:11	1
BDE-126	ND	0.679			27-Feb-22 13:11	1
BDE-105	ND	1.42			27-Feb-22 13:11	1
BDE-155	ND	0.300			27-Feb-22 13:11	1
BDE-128/154	ND	0.484			27-Feb-22 13:11	1
BDE-153	1.42			J	27-Feb-22 13:11	1
BDE-139	ND		1.26		27-Feb-22 13:11	1
BDE-140	ND	0.591			27-Feb-22 13:11	1
BDE-138	ND	0.952			27-Feb-22 13:11	1
BDE-166	ND	1.40			27-Feb-22 13:11	1
BDE-148/156/169	ND	1.49			27-Feb-22 13:11	1
BDE-175	ND	0.569			27-Feb-22 13:11	1
BDE-184	ND	0.437			27-Feb-22 13:11	1
BDE-183/176	2.47			J, B	27-Feb-22 13:11	1
BDE-191	ND	1.42			27-Feb-22 13:11	1
BDE-180	ND	1.29			27-Feb-22 13:11	1
BDE-181/177	ND	1.27			27-Feb-22 13:11	1
BDE-190/171	ND	1.34			27-Feb-22 13:11	1
BDE-201	ND	2.59			27-Feb-22 13:11	1
BDE-204	ND		1.48		27-Feb-22 13:11	1
BDE-197	ND		1.13		27-Feb-22 13:11	1
BDE-203/200	ND	2.81			27-Feb-22 13:11	1
BDE-205	ND	6.35			27-Feb-22 13:11	1

Sample ID: SW109_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 02-Feb-22 13:30

Laboratory Data

Lab Sample: 2202107-08 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.893 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	5.35			J	27-Feb-22 13:11	1
BDE-207	ND	4.99			27-Feb-22 13:11	1
BDE-206	ND	8.50			27-Feb-22 13:11	1
BDE-209	ND	127			27-Feb-22 13:11	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	44.6	25 - 150		27-Feb-22 13:11	1
13C-BDE-15	IS	81.1	25 - 150		27-Feb-22 13:11	1
13C-BDE-28	IS	93.1	25 - 150		27-Feb-22 13:11	1
13C-BDE-47	IS	95.4	30 - 140		27-Feb-22 13:11	1
13C-BDE-77	IS	107	25 - 150		27-Feb-22 13:11	1
13C-BDE-100	IS	107	25 - 150		27-Feb-22 13:11	1
13C-BDE-99	IS	92.3	25 - 150		27-Feb-22 13:11	1
13C-BDE-118	IS	84.5	25 - 150		27-Feb-22 13:11	1
13C-BDE-155	IS	90.3	25 - 150		27-Feb-22 13:11	1
13C-BDE-154	IS	94.1	25 - 150		27-Feb-22 13:11	1
13C-BDE-153	IS	92.8	25 - 150		27-Feb-22 13:11	1
13C-BDE-138	IS	94.9	25 - 150		27-Feb-22 13:11	1
13C-BDE-169	IS	97.6	25 - 150		27-Feb-22 13:11	1
13C-BDE-183	IS	97.9	25 - 150		27-Feb-22 13:11	1
13C-BDE-180	IS	103	25 - 150		27-Feb-22 13:11	1
13C-BDE-204	IS	95.6	25 - 150		27-Feb-22 13:11	1
13C-BDE-197	IS	87.6	25 - 150		27-Feb-22 13:11	1
13C-BDE-205	IS	72.5	25 - 150		27-Feb-22 13:11	1
13C-BDE-207	IS	90.5	25 - 150		27-Feb-22 13:11	1
13C-BDE-206	IS	86.9	25 - 150		27-Feb-22 13:11	1
13C-BDE-209	IS	60.3	20 - 200		27-Feb-22 13:11	1
13C-BDE-126	CRS	94.5	30 - 135		27-Feb-22 13:11	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: SW14_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 04-Feb-22 14:55

Laboratory Data

Lab Sample: 2202107-09 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.946 L Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.11			28-Feb-22 16:57	1
BDE-2	ND	5.23			28-Feb-22 16:57	1
BDE-3	ND	4.62			28-Feb-22 16:57	1
BDE-10	ND	0.210			28-Feb-22 16:57	1
BDE-7	ND	0.199			28-Feb-22 16:57	1
BDE-8/11	ND	0.144			28-Feb-22 16:57	1
BDE-12	ND	0.136			28-Feb-22 16:57	1
BDE-13	ND	0.124			28-Feb-22 16:57	1
BDE-15	ND	0.103			28-Feb-22 16:57	1
BDE-30	ND	0.305			28-Feb-22 16:57	1
BDE-32	ND	0.226			28-Feb-22 16:57	1
BDE-17	ND		0.304		28-Feb-22 16:57	1
BDE-25	ND	0.331			28-Feb-22 16:57	1
BDE-28/33	0.984			J	28-Feb-22 16:57	1
BDE-35/21	ND	0.200			28-Feb-22 16:57	1
BDE-37	ND	0.179			28-Feb-22 16:57	1
BDE-75/51	ND	0.0887			28-Feb-22 16:57	1
BDE-49	ND	0.116			28-Feb-22 16:57	1
BDE-71	ND	0.123			28-Feb-22 16:57	1
BDE-47	8.13			J, B	28-Feb-22 16:57	1
BDE-66	ND	0.155			28-Feb-22 16:57	1
BDE-77	ND	0.0871			28-Feb-22 16:57	1
BDE-79	ND	0.0768			28-Feb-22 16:57	1
BDE-100	ND		1.00		28-Feb-22 16:57	1
BDE-119/120	ND		1.13		28-Feb-22 16:57	1
BDE-99	3.45			J	28-Feb-22 16:57	1
BDE-116	ND	1.99			28-Feb-22 16:57	1
BDE-118	ND	1.20			28-Feb-22 16:57	1
BDE-85	ND	1.30			28-Feb-22 16:57	1
BDE-126	ND	0.814			28-Feb-22 16:57	1
BDE-105	ND	1.70			28-Feb-22 16:57	1
BDE-155	ND	0.333			28-Feb-22 16:57	1
BDE-128/154	ND	0.560			28-Feb-22 16:57	1
BDE-153	ND		1.17		28-Feb-22 16:57	1
BDE-139	1.89			J	28-Feb-22 16:57	1
BDE-140	ND	0.749			28-Feb-22 16:57	1
BDE-138	ND	1.16			28-Feb-22 16:57	1
BDE-166	ND	1.71			28-Feb-22 16:57	1
BDE-148/156/169	ND	2.00			28-Feb-22 16:57	1
BDE-175	ND	1.26			28-Feb-22 16:57	1
BDE-184	ND	0.966			28-Feb-22 16:57	1
BDE-183/176	ND		1.52		28-Feb-22 16:57	1
BDE-191	ND	1.40			28-Feb-22 16:57	1
BDE-180	ND	1.26			28-Feb-22 16:57	1
BDE-181/177	ND	1.25			28-Feb-22 16:57	1
BDE-190/171	ND	1.32			28-Feb-22 16:57	1
BDE-201	ND	4.53			28-Feb-22 16:57	1
BDE-204	ND	4.10			28-Feb-22 16:57	1
BDE-197	ND	2.89			28-Feb-22 16:57	1
BDE-203/200	ND	4.82			28-Feb-22 16:57	1
BDE-205	ND	11.7			28-Feb-22 16:57	1

Sample ID: SW14_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 04-Feb-22 14:55

Laboratory Data

Lab Sample: 2202107-09 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.946 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	4.71			28-Feb-22 16:57	1
BDE-207	ND		4.31		28-Feb-22 16:57	1
BDE-206	ND	8.78			28-Feb-22 16:57	1
BDE-209	ND	188			28-Feb-22 16:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	42.7	25 - 150		28-Feb-22 16:57	1
13C-BDE-15	IS	98.3	25 - 150		28-Feb-22 16:57	1
13C-BDE-28	IS	124	25 - 150		28-Feb-22 16:57	1
13C-BDE-47	IS	114	30 - 140		28-Feb-22 16:57	1
13C-BDE-77	IS	101	25 - 150		28-Feb-22 16:57	1
13C-BDE-100	IS	146	25 - 150		28-Feb-22 16:57	1
13C-BDE-99	IS	120	25 - 150		28-Feb-22 16:57	1
13C-BDE-118	IS	105	25 - 150		28-Feb-22 16:57	1
13C-BDE-155	IS	117	25 - 150		28-Feb-22 16:57	1
13C-BDE-154	IS	118	25 - 150		28-Feb-22 16:57	1
13C-BDE-153	IS	106	25 - 150		28-Feb-22 16:57	1
13C-BDE-138	IS	93.9	25 - 150		28-Feb-22 16:57	1
13C-BDE-169	IS	89.4	25 - 150		28-Feb-22 16:57	1
13C-BDE-183	IS	151	25 - 150	H	28-Feb-22 16:57	1
13C-BDE-180	IS	124	25 - 150		28-Feb-22 16:57	1
13C-BDE-204	IS	116	25 - 150		28-Feb-22 16:57	1
13C-BDE-197	IS	106	25 - 150		28-Feb-22 16:57	1
13C-BDE-205	IS	80.2	25 - 150		28-Feb-22 16:57	1
13C-BDE-207	IS	102	25 - 150		28-Feb-22 16:57	1
13C-BDE-206	IS	99.3	25 - 150		28-Feb-22 16:57	1
13C-BDE-209	IS	85.9	20 - 200		28-Feb-22 16:57	1
13C-BDE-126	CRS	109	30 - 135		28-Feb-22 16:57	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: PZ-01_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 04-Feb-22 12:35

Laboratory Data

Lab Sample: 2202107-10
 QC Batch: B22B176
 Sample Size: 0.804 L
 Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	10.0			28-Feb-22 17:56	1
BDE-2	ND	6.44			28-Feb-22 17:56	1
BDE-3	ND	5.70			28-Feb-22 17:56	1
BDE-10	ND	0.390			28-Feb-22 17:56	1
BDE-7	ND	0.369			28-Feb-22 17:56	1
BDE-8/11	ND	0.267			28-Feb-22 17:56	1
BDE-12	ND	0.252			28-Feb-22 17:56	1
BDE-13	ND	0.231			28-Feb-22 17:56	1
BDE-15	ND	0.192			28-Feb-22 17:56	1
BDE-30	ND	0.396			28-Feb-22 17:56	1
BDE-32	ND	0.293			28-Feb-22 17:56	1
BDE-17	ND	0.305			28-Feb-22 17:56	1
BDE-25	ND	0.430			28-Feb-22 17:56	1
BDE-28/33	1.29			J	28-Feb-22 17:56	1
BDE-35/21	ND	0.259			28-Feb-22 17:56	1
BDE-37	ND	0.233			28-Feb-22 17:56	1
BDE-75/51	ND	0.230			28-Feb-22 17:56	1
BDE-49	ND	0.302			28-Feb-22 17:56	1
BDE-71	ND	0.320			28-Feb-22 17:56	1
BDE-47	22.1			J, B	28-Feb-22 17:56	1
BDE-66	ND	0.352			28-Feb-22 17:56	1
BDE-77	ND	0.198			28-Feb-22 17:56	1
BDE-79	ND	0.199			28-Feb-22 17:56	1
BDE-100	3.90			J, B	28-Feb-22 17:56	1
BDE-119/120	ND	3.07			28-Feb-22 17:56	1
BDE-99	17.2			J	28-Feb-22 17:56	1
BDE-116	ND	6.09			28-Feb-22 17:56	1
BDE-118	ND	3.66			28-Feb-22 17:56	1
BDE-85	ND	3.98			28-Feb-22 17:56	1
BDE-126	ND	2.49			28-Feb-22 17:56	1
BDE-105	ND	5.22			28-Feb-22 17:56	1
BDE-155	ND	0.666			28-Feb-22 17:56	1
BDE-128/154	2.73			J	28-Feb-22 17:56	1
BDE-153	4.35			J	28-Feb-22 17:56	1
BDE-139	1.60			J	28-Feb-22 17:56	1
BDE-140	ND	1.48			28-Feb-22 17:56	1
BDE-138	ND	1.90			28-Feb-22 17:56	1
BDE-166	ND	2.79			28-Feb-22 17:56	1
BDE-148/156/169	ND	3.32			28-Feb-22 17:56	1
BDE-175	ND	1.45			28-Feb-22 17:56	1
BDE-184	ND	1.11			28-Feb-22 17:56	1
BDE-183/176	ND		2.10		28-Feb-22 17:56	1
BDE-191	ND	5.17			28-Feb-22 17:56	1
BDE-180	ND	4.68			28-Feb-22 17:56	1
BDE-181/177	ND	4.64			28-Feb-22 17:56	1
BDE-190/171	ND	4.88			28-Feb-22 17:56	1
BDE-201	ND	11.8			28-Feb-22 17:56	1
BDE-204	16.7			J	28-Feb-22 17:56	1
BDE-197	5.89			J	28-Feb-22 17:56	1
BDE-203/200	ND	13.7			28-Feb-22 17:56	1
BDE-205	ND	29.9			28-Feb-22 17:56	1

Sample ID: PZ-01_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 04-Feb-22 12:35

Laboratory Data

Lab Sample: 2202107-10 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.804 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND		24.2		28-Feb-22 17:56	1
BDE-207	ND		33.4		28-Feb-22 17:56	1
BDE-206	44.0			J	28-Feb-22 17:56	1
BDE-209	1710				28-Feb-22 17:56	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	51.8	25 - 150		28-Feb-22 17:56	1
13C-BDE-15	IS	95.5	25 - 150		28-Feb-22 17:56	1
13C-BDE-28	IS	128	25 - 150		28-Feb-22 17:56	1
13C-BDE-47	IS	90.7	30 - 140		28-Feb-22 17:56	1
13C-BDE-77	IS	89.6	25 - 150		28-Feb-22 17:56	1
13C-BDE-100	IS	123	25 - 150		28-Feb-22 17:56	1
13C-BDE-99	IS	98.0	25 - 150		28-Feb-22 17:56	1
13C-BDE-118	IS	83.7	25 - 150		28-Feb-22 17:56	1
13C-BDE-155	IS	90.2	25 - 150		28-Feb-22 17:56	1
13C-BDE-154	IS	88.7	25 - 150		28-Feb-22 17:56	1
13C-BDE-153	IS	79.4	25 - 150		28-Feb-22 17:56	1
13C-BDE-138	IS	74.7	25 - 150		28-Feb-22 17:56	1
13C-BDE-169	IS	68.4	25 - 150		28-Feb-22 17:56	1
13C-BDE-183	IS	110	25 - 150		28-Feb-22 17:56	1
13C-BDE-180	IS	88.0	25 - 150		28-Feb-22 17:56	1
13C-BDE-204	IS	78.4	25 - 150		28-Feb-22 17:56	1
13C-BDE-197	IS	73.6	25 - 150		28-Feb-22 17:56	1
13C-BDE-205	IS	63.6	25 - 150		28-Feb-22 17:56	1
13C-BDE-207	IS	78.8	25 - 150		28-Feb-22 17:56	1
13C-BDE-206	IS	75.5	25 - 150		28-Feb-22 17:56	1
13C-BDE-209	IS	73.7	20 - 200		28-Feb-22 17:56	1
13C-BDE-126	CRS	99.7	30 - 135		28-Feb-22 17:56	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: PZ-02_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 04-Feb-22 10:40

Laboratory Data

Lab Sample: 2202107-11
 QC Batch: B22B176
 Sample Size: 0.779 L
 Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	13.3			28-Feb-22 18:55	1
BDE-2	ND	8.57			28-Feb-22 18:55	1
BDE-3	ND	7.58			28-Feb-22 18:55	1
BDE-10	ND	0.406			28-Feb-22 18:55	1
BDE-7	ND	0.385			28-Feb-22 18:55	1
BDE-8/11	ND	0.278			28-Feb-22 18:55	1
BDE-12	ND	0.263			28-Feb-22 18:55	1
BDE-13	ND	0.241			28-Feb-22 18:55	1
BDE-15	ND	0.200			28-Feb-22 18:55	1
BDE-30	ND	0.575			28-Feb-22 18:55	1
BDE-32	ND	0.426			28-Feb-22 18:55	1
BDE-17	1.80			J	28-Feb-22 18:55	1
BDE-25	ND	0.625			28-Feb-22 18:55	1
BDE-28/33	ND		6.23		28-Feb-22 18:55	1
BDE-35/21	ND	0.377			28-Feb-22 18:55	1
BDE-37	ND	0.339			28-Feb-22 18:55	1
BDE-75/51	4.33			J	28-Feb-22 18:55	1
BDE-49	12.7			J	28-Feb-22 18:55	1
BDE-71	ND	0.443			28-Feb-22 18:55	1
BDE-47	923			B	28-Feb-22 18:55	1
BDE-66	11.0			J	28-Feb-22 18:55	1
BDE-77	ND	0.307			28-Feb-22 18:55	1
BDE-79	ND	0.276			28-Feb-22 18:55	1
BDE-100	233			B	28-Feb-22 18:55	1
BDE-119/120	ND	3.93			28-Feb-22 18:55	1
BDE-99	1080				28-Feb-22 18:55	1
BDE-116	ND	7.80			28-Feb-22 18:55	1
BDE-118	ND	4.69			28-Feb-22 18:55	1
BDE-85	55.5			J, B	28-Feb-22 18:55	1
BDE-126	ND	3.19			28-Feb-22 18:55	1
BDE-105	ND	6.68			28-Feb-22 18:55	1
BDE-155	ND		4.64		28-Feb-22 18:55	1
BDE-128/154	103			J	28-Feb-22 18:55	1
BDE-153	95.1			J	28-Feb-22 18:55	1
BDE-139	ND		13.9		28-Feb-22 18:55	1
BDE-140	4.66			J	28-Feb-22 18:55	1
BDE-138	ND		11.5		28-Feb-22 18:55	1
BDE-166	ND	5.25			28-Feb-22 18:55	1
BDE-148/156/169	ND	6.07			28-Feb-22 18:55	1
BDE-175	ND	1.28			28-Feb-22 18:55	1
BDE-184	1.15			J	28-Feb-22 18:55	1
BDE-183/176	ND		4.34		28-Feb-22 18:55	1
BDE-191	ND	2.40			28-Feb-22 18:55	1
BDE-180	ND	2.17			28-Feb-22 18:55	1
BDE-181/177	ND	2.15			28-Feb-22 18:55	1
BDE-190/171	ND	2.26			28-Feb-22 18:55	1
BDE-201	ND	10.8			28-Feb-22 18:55	1
BDE-204	ND		41.6		28-Feb-22 18:55	1
BDE-197	ND	6.84			28-Feb-22 18:55	1
BDE-203/200	ND	11.4			28-Feb-22 18:55	1
BDE-205	ND	24.3			28-Feb-22 18:55	1

Sample ID: PZ-02_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 04-Feb-22 10:40

Laboratory Data

Lab Sample: 2202107-11 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.779 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	7.51			28-Feb-22 18:55	1
BDE-207	ND	8.02			28-Feb-22 18:55	1
BDE-206	ND	14.8			28-Feb-22 18:55	1
BDE-209	ND	255			28-Feb-22 18:55	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	45.6	25 - 150		28-Feb-22 18:55	1
13C-BDE-15	IS	88.8	25 - 150		28-Feb-22 18:55	1
13C-BDE-28	IS	114	25 - 150		28-Feb-22 18:55	1
13C-BDE-47	IS	103	30 - 140		28-Feb-22 18:55	1
13C-BDE-77	IS	94.7	25 - 150		28-Feb-22 18:55	1
13C-BDE-100	IS	143	25 - 150		28-Feb-22 18:55	1
13C-BDE-99	IS	117	25 - 150		28-Feb-22 18:55	1
13C-BDE-118	IS	101	25 - 150		28-Feb-22 18:55	1
13C-BDE-155	IS	109	25 - 150		28-Feb-22 18:55	1
13C-BDE-154	IS	108	25 - 150		28-Feb-22 18:55	1
13C-BDE-153	IS	99.3	25 - 150		28-Feb-22 18:55	1
13C-BDE-138	IS	94.0	25 - 150		28-Feb-22 18:55	1
13C-BDE-169	IS	89.4	25 - 150		28-Feb-22 18:55	1
13C-BDE-183	IS	134	25 - 150		28-Feb-22 18:55	1
13C-BDE-180	IS	116	25 - 150		28-Feb-22 18:55	1
13C-BDE-204	IS	107	25 - 150		28-Feb-22 18:55	1
13C-BDE-197	IS	96.2	25 - 150		28-Feb-22 18:55	1
13C-BDE-205	IS	84.5	25 - 150		28-Feb-22 18:55	1
13C-BDE-207	IS	102	25 - 150		28-Feb-22 18:55	1
13C-BDE-206	IS	90.2	25 - 150		28-Feb-22 18:55	1
13C-BDE-209	IS	80.0	20 - 200		28-Feb-22 18:55	1
13C-BDE-126	CRS	87.8	30 - 135		28-Feb-22 18:55	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: PZ-03_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 03-Feb-22 15:15

Laboratory Data

Lab Sample: 2202107-12
 QC Batch: B22B176
 Sample Size: 0.883 L

Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.35			28-Feb-22 19:54	1
BDE-2	ND	5.38			28-Feb-22 19:54	1
BDE-3	ND	4.76			28-Feb-22 19:54	1
BDE-10	ND	0.319			28-Feb-22 19:54	1
BDE-7	ND	0.302			28-Feb-22 19:54	1
BDE-8/11	ND	0.218			28-Feb-22 19:54	1
BDE-12	ND	0.206			28-Feb-22 19:54	1
BDE-13	ND	0.189			28-Feb-22 19:54	1
BDE-15	ND	0.157			28-Feb-22 19:54	1
BDE-30	ND	0.269			28-Feb-22 19:54	1
BDE-32	ND	0.199			28-Feb-22 19:54	1
BDE-17	ND		0.225		28-Feb-22 19:54	1
BDE-25	ND	0.292			28-Feb-22 19:54	1
BDE-28/33	ND		0.696		28-Feb-22 19:54	1
BDE-35/21	ND	0.176			28-Feb-22 19:54	1
BDE-37	ND	0.158			28-Feb-22 19:54	1
BDE-75/51	ND	0.290			28-Feb-22 19:54	1
BDE-49	ND	0.380			28-Feb-22 19:54	1
BDE-71	ND	0.404			28-Feb-22 19:54	1
BDE-47	13.3			J, B	28-Feb-22 19:54	1
BDE-66	ND	0.416			28-Feb-22 19:54	1
BDE-77	ND	0.234			28-Feb-22 19:54	1
BDE-79	ND	0.251			28-Feb-22 19:54	1
BDE-100	2.27			J, B	28-Feb-22 19:54	1
BDE-119/120	ND	3.01			28-Feb-22 19:54	1
BDE-99	10.4			J	28-Feb-22 19:54	1
BDE-116	ND	5.88			28-Feb-22 19:54	1
BDE-118	ND	3.53			28-Feb-22 19:54	1
BDE-85	ND	3.84			28-Feb-22 19:54	1
BDE-126	ND	2.41			28-Feb-22 19:54	1
BDE-105	ND	5.04			28-Feb-22 19:54	1
BDE-155	ND	0.525			28-Feb-22 19:54	1
BDE-128/154	ND		1.34		28-Feb-22 19:54	1
BDE-153	ND	1.08			28-Feb-22 19:54	1
BDE-139	ND	0.976			28-Feb-22 19:54	1
BDE-140	ND	1.09			28-Feb-22 19:54	1
BDE-138	ND	1.13			28-Feb-22 19:54	1
BDE-166	ND	1.66			28-Feb-22 19:54	1
BDE-148/156/169	ND	1.91			28-Feb-22 19:54	1
BDE-175	ND	0.753			28-Feb-22 19:54	1
BDE-184	ND	0.577			28-Feb-22 19:54	1
BDE-183/176	ND		2.49		28-Feb-22 19:54	1
BDE-191	ND	1.40			28-Feb-22 19:54	1
BDE-180	ND	1.26			28-Feb-22 19:54	1
BDE-181/177	ND	1.25			28-Feb-22 19:54	1
BDE-190/171	ND	1.32			28-Feb-22 19:54	1
BDE-201	ND	9.19			28-Feb-22 19:54	1
BDE-204	ND		10.2		28-Feb-22 19:54	1
BDE-197	ND		3.52		28-Feb-22 19:54	1
BDE-203/200	ND	10.2			28-Feb-22 19:54	1
BDE-205	ND	20.1			28-Feb-22 19:54	1

Sample ID: PZ-03_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 03-Feb-22 15:15

Laboratory Data

Lab Sample: 2202107-12
 QC Batch: B22B176
 Sample Size: 0.883 L

Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	4.22			28-Feb-22 19:54	1
BDE-207	ND		7.19		28-Feb-22 19:54	1
BDE-206	ND	7.79			28-Feb-22 19:54	1
BDE-209	ND	188			28-Feb-22 19:54	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	54.7	25 - 150		28-Feb-22 19:54	1
13C-BDE-15	IS	108	25 - 150		28-Feb-22 19:54	1
13C-BDE-28	IS	142	25 - 150		28-Feb-22 19:54	1
13C-BDE-47	IS	107	30 - 140		28-Feb-22 19:54	1
13C-BDE-77	IS	112	25 - 150		28-Feb-22 19:54	1
13C-BDE-100	IS	135	25 - 150		28-Feb-22 19:54	1
13C-BDE-99	IS	110	25 - 150		28-Feb-22 19:54	1
13C-BDE-118	IS	97.5	25 - 150		28-Feb-22 19:54	1
13C-BDE-155	IS	102	25 - 150		28-Feb-22 19:54	1
13C-BDE-154	IS	102	25 - 150		28-Feb-22 19:54	1
13C-BDE-153	IS	98.8	25 - 150		28-Feb-22 19:54	1
13C-BDE-138	IS	98.8	25 - 150		28-Feb-22 19:54	1
13C-BDE-169	IS	97.3	25 - 150		28-Feb-22 19:54	1
13C-BDE-183	IS	124	25 - 150		28-Feb-22 19:54	1
13C-BDE-180	IS	112	25 - 150		28-Feb-22 19:54	1
13C-BDE-204	IS	101	25 - 150		28-Feb-22 19:54	1
13C-BDE-197	IS	91.1	25 - 150		28-Feb-22 19:54	1
13C-BDE-205	IS	83.2	25 - 150		28-Feb-22 19:54	1
13C-BDE-207	IS	106	25 - 150		28-Feb-22 19:54	1
13C-BDE-206	IS	96.7	25 - 150		28-Feb-22 19:54	1
13C-BDE-209	IS	82.3	20 - 200		28-Feb-22 19:54	1
13C-BDE-126	CRS	103	30 - 135		28-Feb-22 19:54	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: PZ-04_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 03-Feb-22 12:05

Laboratory Data

Lab Sample: 2202107-13
 QC Batch: B22B176
 Sample Size: 0.890 L
 Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.41			28-Feb-22 20:52	1
BDE-2	ND	5.42			28-Feb-22 20:52	1
BDE-3	ND	4.79			28-Feb-22 20:52	1
BDE-10	ND	0.363			28-Feb-22 20:52	1
BDE-7	ND	0.344			28-Feb-22 20:52	1
BDE-8/11	ND	0.249			28-Feb-22 20:52	1
BDE-12	ND	0.235			28-Feb-22 20:52	1
BDE-13	ND	0.216			28-Feb-22 20:52	1
BDE-15	ND	0.179			28-Feb-22 20:52	1
BDE-30	ND	0.399			28-Feb-22 20:52	1
BDE-32	ND	0.295			28-Feb-22 20:52	1
BDE-17	ND	0.308			28-Feb-22 20:52	1
BDE-25	ND	0.433			28-Feb-22 20:52	1
BDE-28/33	ND		1.24		28-Feb-22 20:52	1
BDE-35/21	ND	0.261			28-Feb-22 20:52	1
BDE-37	ND	0.235			28-Feb-22 20:52	1
BDE-75/51	ND	0.164			28-Feb-22 20:52	1
BDE-49	ND	0.216			28-Feb-22 20:52	1
BDE-71	ND	0.229			28-Feb-22 20:52	1
BDE-47	18.5			J, B	28-Feb-22 20:52	1
BDE-66	ND	0.255			28-Feb-22 20:52	1
BDE-77	ND	0.144			28-Feb-22 20:52	1
BDE-79	ND	0.142			28-Feb-22 20:52	1
BDE-100	ND		2.30		28-Feb-22 20:52	1
BDE-119/120	ND	2.65			28-Feb-22 20:52	1
BDE-99	11.9			J	28-Feb-22 20:52	1
BDE-116	ND	5.55			28-Feb-22 20:52	1
BDE-118	ND	3.34			28-Feb-22 20:52	1
BDE-85	ND	3.63			28-Feb-22 20:52	1
BDE-126	ND	2.27			28-Feb-22 20:52	1
BDE-105	ND	4.76			28-Feb-22 20:52	1
BDE-155	ND	0.533			28-Feb-22 20:52	1
BDE-128/154	ND		1.67		28-Feb-22 20:52	1
BDE-153	ND		1.69		28-Feb-22 20:52	1
BDE-139	ND		1.19		28-Feb-22 20:52	1
BDE-140	ND	1.14			28-Feb-22 20:52	1
BDE-138	ND	1.52			28-Feb-22 20:52	1
BDE-166	ND	2.23			28-Feb-22 20:52	1
BDE-148/156/169	ND	2.47			28-Feb-22 20:52	1
BDE-175	ND	0.867			28-Feb-22 20:52	1
BDE-184	ND	0.665			28-Feb-22 20:52	1
BDE-183/176	ND		2.52		28-Feb-22 20:52	1
BDE-191	ND	2.52			28-Feb-22 20:52	1
BDE-180	ND	2.28			28-Feb-22 20:52	1
BDE-181/177	ND	2.26			28-Feb-22 20:52	1
BDE-190/171	ND	2.37			28-Feb-22 20:52	1
BDE-201	ND	9.73			28-Feb-22 20:52	1
BDE-204	ND		22.8		28-Feb-22 20:52	1
BDE-197	ND		5.59		28-Feb-22 20:52	1
BDE-203/200	ND	10.6			28-Feb-22 20:52	1
BDE-205	ND	21.7			28-Feb-22 20:52	1

Sample ID: PZ-04_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
Project: Eatonville
Matrix: Aqueous
Date Collected: 03-Feb-22 12:05

Laboratory Data

Lab Sample: 2202107-13
QC Batch: B22B176
Sample Size: 0.890 L
Date Received: 08-Feb-22 13:03
Date Extracted: 18-Feb-22
Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND		10.4		28-Feb-22 20:52	1
BDE-207	ND		19.0		28-Feb-22 20:52	1
BDE-206	ND	21.3			28-Feb-22 20:52	1
BDE-209	ND	255			28-Feb-22 20:52	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	53.8	25 - 150		28-Feb-22 20:52	1
13C-BDE-15	IS	99.3	25 - 150		28-Feb-22 20:52	1
13C-BDE-28	IS	129	25 - 150		28-Feb-22 20:52	1
13C-BDE-47	IS	102	30 - 140		28-Feb-22 20:52	1
13C-BDE-77	IS	103	25 - 150		28-Feb-22 20:52	1
13C-BDE-100	IS	134	25 - 150		28-Feb-22 20:52	1
13C-BDE-99	IS	107	25 - 150		28-Feb-22 20:52	1
13C-BDE-118	IS	92.5	25 - 150		28-Feb-22 20:52	1
13C-BDE-155	IS	98.6	25 - 150		28-Feb-22 20:52	1
13C-BDE-154	IS	98.8	25 - 150		28-Feb-22 20:52	1
13C-BDE-153	IS	93.0	25 - 150		28-Feb-22 20:52	1
13C-BDE-138	IS	87.5	25 - 150		28-Feb-22 20:52	1
13C-BDE-169	IS	83.9	25 - 150		28-Feb-22 20:52	1
13C-BDE-183	IS	112	25 - 150		28-Feb-22 20:52	1
13C-BDE-180	IS	99.3	25 - 150		28-Feb-22 20:52	1
13C-BDE-204	IS	92.5	25 - 150		28-Feb-22 20:52	1
13C-BDE-197	IS	96.4	25 - 150		28-Feb-22 20:52	1
13C-BDE-205	IS	81.8	25 - 150		28-Feb-22 20:52	1
13C-BDE-207	IS	97.4	25 - 150		28-Feb-22 20:52	1
13C-BDE-206	IS	88.0	25 - 150		28-Feb-22 20:52	1
13C-BDE-209	IS	77.2	20 - 200		28-Feb-22 20:52	1
13C-BDE-126	CRS	103	30 - 135		28-Feb-22 20:52	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: PZ-05_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 04-Feb-22 13:45

Laboratory Data

Lab Sample: 2202107-14
 QC Batch: B22B176
 Sample Size: 0.918 L
 Date Received: 08-Feb-22 13:03
 Date Extracted: 18-Feb-22
 Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.72			28-Feb-22 22:50	1
BDE-2	ND	5.62			28-Feb-22 22:50	1
BDE-3	ND	4.97			28-Feb-22 22:50	1
BDE-10	ND	0.331			28-Feb-22 22:50	1
BDE-7	ND	0.313			28-Feb-22 22:50	1
BDE-8/11	ND	0.226			28-Feb-22 22:50	1
BDE-12	ND	0.214			28-Feb-22 22:50	1
BDE-13	ND	0.196			28-Feb-22 22:50	1
BDE-15	ND	0.162			28-Feb-22 22:50	1
BDE-30	ND	0.310			28-Feb-22 22:50	1
BDE-32	ND	0.229			28-Feb-22 22:50	1
BDE-17	ND	0.239			28-Feb-22 22:50	1
BDE-25	ND	0.336			28-Feb-22 22:50	1
BDE-28/33	0.729			J	28-Feb-22 22:50	1
BDE-35/21	ND	0.203			28-Feb-22 22:50	1
BDE-37	ND	0.182			28-Feb-22 22:50	1
BDE-75/51	ND	0.173			28-Feb-22 22:50	1
BDE-49	ND	0.227			28-Feb-22 22:50	1
BDE-71	ND	0.241			28-Feb-22 22:50	1
BDE-47	14.7			J, B	28-Feb-22 22:50	1
BDE-66	ND	0.254			28-Feb-22 22:50	1
BDE-77	ND	0.143			28-Feb-22 22:50	1
BDE-79	ND	0.150			28-Feb-22 22:50	1
BDE-100	2.62			J, B	28-Feb-22 22:50	1
BDE-119/120	ND	3.48			28-Feb-22 22:50	1
BDE-99	10.6			J	28-Feb-22 22:50	1
BDE-116	ND	6.10			28-Feb-22 22:50	1
BDE-118	ND	3.67			28-Feb-22 22:50	1
BDE-85	ND	3.99			28-Feb-22 22:50	1
BDE-126	ND	2.50			28-Feb-22 22:50	1
BDE-105	ND	5.23			28-Feb-22 22:50	1
BDE-155	ND	0.689			28-Feb-22 22:50	1
BDE-128/154	ND	1.12			28-Feb-22 22:50	1
BDE-153	2.83			J	28-Feb-22 22:50	1
BDE-139	ND		1.27		28-Feb-22 22:50	1
BDE-140	ND	1.33			28-Feb-22 22:50	1
BDE-138	ND	1.64			28-Feb-22 22:50	1
BDE-166	ND	2.42			28-Feb-22 22:50	1
BDE-148/156/169	ND	2.60			28-Feb-22 22:50	1
BDE-175	ND	0.670			28-Feb-22 22:50	1
BDE-184	ND	0.514			28-Feb-22 22:50	1
BDE-183/176	2.99			J, B	28-Feb-22 22:50	1
BDE-191	ND	2.44			28-Feb-22 22:50	1
BDE-180	ND	2.21			28-Feb-22 22:50	1
BDE-181/177	ND	2.19			28-Feb-22 22:50	1
BDE-190/171	ND	2.30			28-Feb-22 22:50	1
BDE-201	ND	7.59			28-Feb-22 22:50	1
BDE-204	ND		17.0		28-Feb-22 22:50	1
BDE-197	ND		4.59		28-Feb-22 22:50	1
BDE-203/200	ND	8.43			28-Feb-22 22:50	1
BDE-205	ND	15.6			28-Feb-22 22:50	1

Sample ID: PZ-05_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
Project: Eatonville
Matrix: Aqueous
Date Collected: 04-Feb-22 13:45

Laboratory Data

Lab Sample: 2202107-14
QC Batch: B22B176
Sample Size: 0.918 L
Date Received: 08-Feb-22 13:03
Date Extracted: 18-Feb-22
Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	5.55			28-Feb-22 22:50	1
BDE-207	ND	5.93			28-Feb-22 22:50	1
BDE-206	ND	10.5			28-Feb-22 22:50	1
BDE-209	ND	280			28-Feb-22 22:50	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	48.7	25 - 150		28-Feb-22 22:50	1
13C-BDE-15	IS	86.3	25 - 150		28-Feb-22 22:50	1
13C-BDE-28	IS	115	25 - 150		28-Feb-22 22:50	1
13C-BDE-47	IS	86.7	30 - 140		28-Feb-22 22:50	1
13C-BDE-77	IS	89.6	25 - 150		28-Feb-22 22:50	1
13C-BDE-100	IS	106	25 - 150		28-Feb-22 22:50	1
13C-BDE-99	IS	92.2	25 - 150		28-Feb-22 22:50	1
13C-BDE-118	IS	84.4	25 - 150		28-Feb-22 22:50	1
13C-BDE-155	IS	84.0	25 - 150		28-Feb-22 22:50	1
13C-BDE-154	IS	85.6	25 - 150		28-Feb-22 22:50	1
13C-BDE-153	IS	86.4	25 - 150		28-Feb-22 22:50	1
13C-BDE-138	IS	88.5	25 - 150		28-Feb-22 22:50	1
13C-BDE-169	IS	93.0	25 - 150		28-Feb-22 22:50	1
13C-BDE-183	IS	108	25 - 150		28-Feb-22 22:50	1
13C-BDE-180	IS	95.9	25 - 150		28-Feb-22 22:50	1
13C-BDE-204	IS	87.9	25 - 150		28-Feb-22 22:50	1
13C-BDE-197	IS	77.7	25 - 150		28-Feb-22 22:50	1
13C-BDE-205	IS	76.5	25 - 150		28-Feb-22 22:50	1
13C-BDE-207	IS	85.3	25 - 150		28-Feb-22 22:50	1
13C-BDE-206	IS	78.2	25 - 150		28-Feb-22 22:50	1
13C-BDE-209	IS	52.4	20 - 200		28-Feb-22 22:50	1
13C-BDE-126	CRS	94.7	30 - 135		28-Feb-22 22:50	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

Sample ID: PZ-102_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 04-Feb-22 10:50

Laboratory Data

Lab Sample: 2202107-15 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.753 L Column: ZB-SMS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	10.1			28-Feb-22 21:51	1
BDE-2	ND	6.48			28-Feb-22 21:51	1
BDE-3	ND	5.74			28-Feb-22 21:51	1
BDE-10	ND	0.425			28-Feb-22 21:51	1
BDE-7	ND	0.402			28-Feb-22 21:51	1
BDE-8/11	ND	0.291			28-Feb-22 21:51	1
BDE-12	ND	0.275			28-Feb-22 21:51	1
BDE-13	ND	0.252			28-Feb-22 21:51	1
BDE-15	ND	0.209			28-Feb-22 21:51	1
BDE-30	ND	0.411			28-Feb-22 21:51	1
BDE-32	ND	0.305			28-Feb-22 21:51	1
BDE-17	ND	0.317			28-Feb-22 21:51	1
BDE-25	ND	0.446			28-Feb-22 21:51	1
BDE-28/33	1.30			J	28-Feb-22 21:51	1
BDE-35/21	ND	0.269			28-Feb-22 21:51	1
BDE-37	ND	0.242			28-Feb-22 21:51	1
BDE-75/51	ND	0.219			28-Feb-22 21:51	1
BDE-49	ND		0.693		28-Feb-22 21:51	1
BDE-71	ND	0.305			28-Feb-22 21:51	1
BDE-47	25.3			J, B	28-Feb-22 21:51	1
BDE-66	ND	0.334			28-Feb-22 21:51	1
BDE-77	ND	0.188			28-Feb-22 21:51	1
BDE-79	ND	0.190			28-Feb-22 21:51	1
BDE-100	ND		2.83		28-Feb-22 21:51	1
BDE-119/120	ND	2.91			28-Feb-22 21:51	1
BDE-99	14.7			J	28-Feb-22 21:51	1
BDE-116	ND	5.55			28-Feb-22 21:51	1
BDE-118	ND	3.34			28-Feb-22 21:51	1
BDE-85	ND	3.63			28-Feb-22 21:51	1
BDE-126	ND	2.27			28-Feb-22 21:51	1
BDE-105	ND	4.76			28-Feb-22 21:51	1
BDE-155	ND	0.689			28-Feb-22 21:51	1
BDE-128/154	ND	1.10			28-Feb-22 21:51	1
BDE-153	2.82			J	28-Feb-22 21:51	1
BDE-139	ND	1.22			28-Feb-22 21:51	1
BDE-140	ND	1.37			28-Feb-22 21:51	1
BDE-138	ND	1.78			28-Feb-22 21:51	1
BDE-166	ND	2.61			28-Feb-22 21:51	1
BDE-148/156/169	ND	3.04			28-Feb-22 21:51	1
BDE-175	ND	0.611			28-Feb-22 21:51	1
BDE-184	ND	0.468			28-Feb-22 21:51	1
BDE-183/176	ND		3.81		28-Feb-22 21:51	1
BDE-191	ND	3.05			28-Feb-22 21:51	1
BDE-180	ND	2.75			28-Feb-22 21:51	1
BDE-181/177	ND	2.73			28-Feb-22 21:51	1
BDE-190/171	ND	2.87			28-Feb-22 21:51	1
BDE-201	ND	10.9			28-Feb-22 21:51	1
BDE-204	20.8			J	28-Feb-22 21:51	1
BDE-197	ND		8.91		28-Feb-22 21:51	1
BDE-203/200	ND	11.4			28-Feb-22 21:51	1
BDE-205	ND	24.8			28-Feb-22 21:51	1

Sample ID: PZ-102_0222
EPA Method 1614
Client Data

Name: GSI Water Solutions
 Project: Eatonville
 Matrix: Aqueous
 Date Collected: 04-Feb-22 10:50

Laboratory Data

Lab Sample: 2202107-15 Date Received: 08-Feb-22 13:03
 QC Batch: B22B176 Date Extracted: 18-Feb-22
 Sample Size: 0.753 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	7.54			28-Feb-22 21:51	1
BDE-207	ND	8.06			28-Feb-22 21:51	1
BDE-206	ND	15.0			28-Feb-22 21:51	1
BDE-209	ND	310			28-Feb-22 21:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	45.3	25 - 150		28-Feb-22 21:51	1
13C-BDE-15	IS	82.2	25 - 150		28-Feb-22 21:51	1
13C-BDE-28	IS	115	25 - 150		28-Feb-22 21:51	1
13C-BDE-47	IS	92.8	30 - 140		28-Feb-22 21:51	1
13C-BDE-77	IS	93.4	25 - 150		28-Feb-22 21:51	1
13C-BDE-100	IS	127	25 - 150		28-Feb-22 21:51	1
13C-BDE-99	IS	107	25 - 150		28-Feb-22 21:51	1
13C-BDE-118	IS	93.5	25 - 150		28-Feb-22 21:51	1
13C-BDE-155	IS	96.5	25 - 150		28-Feb-22 21:51	1
13C-BDE-154	IS	100	25 - 150		28-Feb-22 21:51	1
13C-BDE-153	IS	94.3	25 - 150		28-Feb-22 21:51	1
13C-BDE-138	IS	88.8	25 - 150		28-Feb-22 21:51	1
13C-BDE-169	IS	86.9	25 - 150		28-Feb-22 21:51	1
13C-BDE-183	IS	117	25 - 150		28-Feb-22 21:51	1
13C-BDE-180	IS	107	25 - 150		28-Feb-22 21:51	1
13C-BDE-204	IS	107	25 - 150		28-Feb-22 21:51	1
13C-BDE-197	IS	89.0	25 - 150		28-Feb-22 21:51	1
13C-BDE-205	IS	78.9	25 - 150		28-Feb-22 21:51	1
13C-BDE-207	IS	97.3	25 - 150		28-Feb-22 21:51	1
13C-BDE-206	IS	85.0	25 - 150		28-Feb-22 21:51	1
13C-BDE-209	IS	65.5	20 - 200		28-Feb-22 21:51	1
13C-BDE-126	CRS	105	30 - 135		28-Feb-22 21:51	1

EDL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-26
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1980678
New Hampshire Environmental Accreditation Program	207720
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-016
Pennsylvania Department of Environmental Protection	017
Texas Commission on Environmental Quality	T104704189-21-12
Vermont Department of Health	VT-4042
Virginia Department of General Services	10769
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulfonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A



CHAIN OF CUSTODY

Analytical Laboratory

For Laboratory Use Only
 Laboratory Project ID: 2202107 Temp: 25 °C
 Storage ID: WV-2 Storage Secured: Yes ☒ No ☐

Project ID: Eatonville P.O.#: 0171-067 Sampler: Genevieve Schutius (name)
 Invoice to: Name Josh Bale Company GSI Address 55 SW Yamhill #200 City Portland State OR Zip 9712008502
 Relinquished by (printed name and signature) Genevieve Schutius Date 2/5/22 Time 1000
 Relinquished by (printed name and signature) _____ Date _____ Time _____

SHIP TO: Vista Analytical Laboratory
 1104 Windfield Way
 El Dorado Hills, CA 95762
 (916) 673-1520 • Fax (916) 673-0106

Method of Shipment: FedEx UPS

Tracking No.: _____

ATTN: _____

Sample ID	Date	Time	Location/Sample Description	Add Analysis(es) Requested		Comments
				Container(s)	Matrix	
SW07-0222	2/2/22	1100		2 A AQ	2378 TCDD	
SW08-0222		1310		2 A AQ	2378 TCDD	
SW09-0222		1325		2 A AQ	2378 TCDD	
SW10-0222		1422		2 A AQ	2378 TCDD	
SW11-0222		1519		2 A AQ	2378 TCDD	
SW12-0222		1600		2 A AQ	2378 TCDD	
SW13-0222		1725		2 A AQ	2378 TCDD	
SW109-0222		1330		2 A AQ	2378 TCDD	
SW114-0222	2/4/22	1455				

Special Instructions/Comments: Bottles do not have "0222" on end - please add to ID.

SEND DOCUMENTATION AND RESULTS TO:
 Name: Josh Bale
 Company: GSI
 Address: 55 SW Yamhill St #200
 City: Portland State: OR Zip: 97204
 Phone: 971-200-5502 Fax: _____
 Email: bale@gslus.com

Container Types: A = 1 Liter Amber, G = Glass Jar
 P = PUF, T = MM5, O = Other: _____
 Bottle Preservation Type: TZ = Trizma, O = Other: _____
 Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____



CHAIN OF CUSTODY

Analytical Laboratory

For Laboratory Use Only
 Laboratory Project ID: 2202107 Temp: 2.5 °C
 Storage ID: WF-2 Storage Secured: Yes ☒ No ☐

Project ID: Eatonville P.O.#: 01710107 Sampler: B. Schuster

Invoice to: Name Josh Bale Company CSI Address _____ City _____ State _____ Zip _____

Relinquished by (printed name and signature) Genevieve Schuster Date 2/5/22 Time 1000 Received by (printed name and signature) _____ Date _____ Time _____

Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

SHIP TO: Vista Analytical Laboratory
 1104 Windfield Way
 El Dorado Hills, CA 95762
 (916) 673-1520 * Fax (916) 673-0106

Method of Shipment: UPS

Tracking No.: _____

ATTN: _____

Sample ID	Date	Time	Location/Sample Description	Add Analysis(es) Requested		Matrix	Type	Quantity	Container(s)										Comments	
P2-01-0222	2/4/22	1235						2	A	AQ										
P2-02-0222	2/4/22	1040						2	A	AQ										
P2-03-0222	2/3/22	1515						2	A	AQ										
P2-04-0222	2/3/22	1205						2	A	AQ										
P2-05-0222	2/4/22	1345						2	A	AQ										
P2-102-0222	2/4/22	1050						2	A	AQ										

Special Instructions/Comments: Bottles do not have "0222" at end - please add to ID.

SEND DOCUMENTATION AND RESULTS TO: Name: Josh Bale Company: _____ Address: _____ City: PA-A State: _____ Zip: _____ Phone: 562 Fax: _____ Email: _____

Container Types: A = 1 Liter Amber, G = Glass Jar
 P = PUF, T = MM5, O = Other: _____
 Bottle Preservation Type: TZ = Trizma, O = Other: _____
 Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____

Sample Log-In Checklist

 Page # 1 of 3

 Vista Work Order #: 2202107

 TAT Std

Samples Arrival:	Date/Time <u>02/08/22 17:03</u>		Initials: <u>Kr</u>		Location: <u>WR-2</u>	
	Shelf/Rack: _____					
Delivered By:	<input checked="" type="radio"/> FedEx	<input type="radio"/> UPS	<input type="radio"/> On Trac	<input type="radio"/> GLS	<input type="radio"/> DHL	<input type="radio"/> Hand Delivered
Preservation:	<input checked="" type="radio"/> Ice	<input type="radio"/> Blue Ice		<input type="radio"/> Techni Ice	<input type="radio"/> Dry Ice	<input type="radio"/> None
Temp °C: <u>4.1</u> (uncorrected)	Probe used: Y <input checked="" type="radio"/> N			Thermometer ID: <u>IR-4</u>		
Temp °C: <u>3.9</u> (corrected)						

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airbill <u>1083</u> Trk # _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Documentation Present? <u>2895 6633 1704</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container <input checked="" type="radio"/> Vista <input type="radio"/> Client <input checked="" type="radio"/> Retain <input type="radio"/> Return <input type="radio"/> Dispose			
Chain of Custody / Sample Documentation Present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chain of Custody / Sample Documentation Complete?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Holding Time Acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Logged In:	Date/Time <u>02/10/22 11:00</u>		Initials: <u>JB</u>	Location: <u>NY-2</u>	
	Shelf/Rack: <u>B-2 C-2</u>				
COC Anomaly/Sample Acceptance Form completed?				<input checked="" type="checkbox"/>	<input type="checkbox"/>

 Comments: A) COC present in cooler #2

Sample Log-In Checklist

 Page # 2 of 3

 Vista Work Order #: 2202107

 TAT std

Samples Arrival:	Date/Time <u>02/08/22 17:07</u>		Initials: <u>KS</u>		Location: <u>WR-2</u>	
					Shelf/Rack: <u>WR-2</u>	
Delivered By:	<input checked="" type="radio"/> FedEx	<input type="radio"/> UPS	<input type="radio"/> On Trac	<input type="radio"/> GLS	<input type="radio"/> DHL	<input type="radio"/> Hand Delivered
Preservation:	<input checked="" type="radio"/> Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Techni Ice	<input type="radio"/> Dry Ice	<input type="radio"/> None	
Temp °C: <u>3.0</u> (uncorrected)	Probe used: Y / <input checked="" type="radio"/> N				Thermometer ID: <u>IR-4</u>	
Temp °C: <u>2.8</u> (corrected)						

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airbill <u>2097</u> Trk # <u>2895 6633 1715</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container	<input checked="" type="radio"/> Vista	<input type="radio"/> Client	<input type="radio"/> Retain
	<input type="radio"/> Return	<input type="radio"/> Dispose	
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Logged In:	Date/Time <u>02/10/22 11:00</u>	Initials: <u>[Signature]</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>B2C-2</u>
COC Anomaly/Sample Acceptance Form completed?			<input checked="" type="checkbox"/>

Comments:

Sample Log-In Checklist

 Page # 3 of 3

 Vista Work Order #: 2202107 TAT Std

Samples Arrival:	Date/Time <u>02/08/22 17:07</u>		Initials: <u>162</u>		Location: <u>WR-2</u>	
	Shelf/Rack: <u>V12</u>					
Delivered By:	<u>FedEx</u>	UPS	On Trac	GLS	DHL	Hand Delivered
Preservation:	<u>Ice</u>	Blue Ice	Techni Ice	Dry Ice	None	
Temp °C: <u>2.7</u> (uncorrected)	Probe used: Y / <u>N</u>				Thermometer ID: <u>FR-4</u>	
Temp °C: <u>2.5</u> (corrected)						

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>		
Airbill <u>3093</u> Trk # <u>2895 6633 1726</u>	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Shipping Container	<u>Vista</u>	Client	<u>Retain</u>
Chain of Custody / Sample Documentation Present?		<input checked="" type="checkbox"/>	
Chain of Custody / Sample Documentation Complete?			<input checked="" type="checkbox"/>
Holding Time Acceptable?			<input checked="" type="checkbox"/>

Logged In:	Date/Time <u>02/10/22 11:00</u>		Initials: <u>(Signature)</u>	Location: <u>WR-2</u>	
	Shelf/Rack: <u>B2C-2</u>				
COC Anomaly/Sample Acceptance Form completed?				<input checked="" type="checkbox"/>	

 Comments: A) Coc present in Cooler #2

CoC/Label Reconciliation Report WO# 2202107

LabNumber	CoC Sample ID	Sample Alias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2202107-01	A SW07_0222		<input type="checkbox"/> 02-Feb-22 11:00	Amber Glass NM Bottle, IL	Aqueous	
2202107-01	B SW07_0222		<input type="checkbox"/> 02-Feb-22 11:00	Amber Glass NM Bottle, IL	Aqueous	
2202107-02	A SW08_0222		<input type="checkbox"/> 02-Feb-22 12:10	Amber Glass NM Bottle, IL	Aqueous	
2202107-02	B SW08_0222		<input type="checkbox"/> 02-Feb-22 12:10	Amber Glass NM Bottle, IL	Aqueous	
2202107-03	A SW09_0222		<input type="checkbox"/> 02-Feb-22 13:25	Amber Glass NM Bottle, IL	Aqueous	
2202107-03	B SW09_0222		<input type="checkbox"/> 02-Feb-22 13:25	Amber Glass NM Bottle, IL	Aqueous	
2202107-04	A SW10_0222		<input type="checkbox"/> 02-Feb-22 14:22	Amber Glass NM Bottle, IL	Aqueous	
2202107-04	B SW10_0222		<input type="checkbox"/> 02-Feb-22 14:22	Amber Glass NM Bottle, IL	Aqueous	
2202107-05	A SW11_0222		<input type="checkbox"/> 02-Feb-22 15:15	Amber Glass NM Bottle, IL	Aqueous	
2202107-05	B SW11_0222		<input type="checkbox"/> 02-Feb-22 15:15	Amber Glass NM Bottle, IL	Aqueous	
2202107-06	A SW12_0222		<input type="checkbox"/> 02-Feb-22 16:00	Amber Glass NM Bottle, IL	Aqueous	
2202107-06	B SW12_0222		<input type="checkbox"/> 02-Feb-22 16:00	Amber Glass NM Bottle, IL	Aqueous	
2202107-07	A SW13_0222		<input type="checkbox"/> 02-Feb-22 17:25	Amber Glass NM Bottle, IL	Aqueous	
2202107-07	B SW13_0222		<input type="checkbox"/> 02-Feb-22 17:25	Amber Glass NM Bottle, IL	Aqueous	
2202107-08	A SW109_0222		<input type="checkbox"/> 02-Feb-22 13:30	Amber Glass NM Bottle, IL	Aqueous	
2202107-08	B SW109_0222		<input type="checkbox"/> 02-Feb-22 13:30	Amber Glass NM Bottle, IL	Aqueous	
2202107-09	A SW14_0222		<input type="checkbox"/> 04-Feb-22 14:55	Amber Glass NM Bottle, IL	Aqueous	
2202107-09	B SW14_0222		<input type="checkbox"/> 04-Feb-22 14:55	Amber Glass NM Bottle, IL	Aqueous	
2202107-10	A PZ-01_0222		<input type="checkbox"/> 04-Feb-22 12:35	Amber Glass NM Bottle, IL	Aqueous	
2202107-10	B PZ-01_0222		<input type="checkbox"/> 04-Feb-22 12:35	Amber Glass NM Bottle, IL	Aqueous	
2202107-11	A PZ-02_0222		<input type="checkbox"/> 04-Feb-22 10:40	Amber Glass NM Bottle, IL	Aqueous	
2202107-11	B PZ-02_0222		<input type="checkbox"/> 04-Feb-22 10:40	Amber Glass NM Bottle, IL	Aqueous	
2202107-12	A PZ-03_0222		<input type="checkbox"/> 03-Feb-22 15:15	Amber Glass NM Bottle, IL	Aqueous	
2202107-12	B PZ-03_0222		<input type="checkbox"/> 03-Feb-22 15:15	Amber Glass NM Bottle, IL	Aqueous	
2202107-13	A PZ-04_0222		<input type="checkbox"/> 03-Feb-22 12:05	Amber Glass NM Bottle, IL	Aqueous	
2202107-13	B PZ-04_0222		<input type="checkbox"/> 03-Feb-22 12:05	Amber Glass NM Bottle, IL	Aqueous	
2202107-14	A PZ-05_0222		<input type="checkbox"/> 04-Feb-22 13:45	Amber Glass NM Bottle, IL	Aqueous	
2202107-14	B PZ-05_0222		<input type="checkbox"/> 04-Feb-22 13:45	Amber Glass NM Bottle, IL	Aqueous	

Comments:

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?		✓	✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		

Preservation Documented:	Trizma	NH4CH3CO2	None	Other
Na2S2O3				

None
All

Verified by/Date:

27111



ANOMALY FORM

Vista Work Order 2202107

Initial/Date The following checked issues were noted during sample receipt and login:

- ☐ 1. The samples were received out of temperature at (WI-PHT): _____
Was Ice present: Yes No Melted Blue Ice

☐ 2. The Chain-of-Custody (CoC) was not relinquished properly.

☐ 3. The CoC did not include collection time(s). 00:00 will be used unless notified otherwise.

☐ 4. The sample(s) did not include a sample collection time. All or Sample Name: _____

☒ 5. A sample ID discrepancy was found. See the Reconciliation report.
The CoC Sample ID will be used unless notified otherwise.

☒ 6. A sample date and/or time discrepancy was found. See the Reconciliation report.
The CoC Sample date/time will be used unless notified otherwise.

☐ 7. The CoC did not include a sample matrix. The following sample matrix will be used: _____

☐ 8. Insufficient volume received for analysis. All or Sample Name: _____

☐ 9. The backup bottle was received broken. Sample Name: _____

☐ 10. CoC not received, illegible or destroyed.

☐ 11. The sample(s) were received out of holding time. All or Sample Name: _____

☐ 12. The CoC did not include an analysis. All or Sample Name: _____

☐ 13. Sample(s) received without collection date. All or Sample Name: _____

☐ 14. Sample(s) not received. All or Sample Name: _____

☐ 15. Sample(s) received broken. All or Sample Name: _____

☐ 16. An incorrect container-type was used. All or Sample Name: _____

☐ 17. The Field Reagent Blank (FRB) preservative was from a different lot than the field samples.
Will proceed with analysis and narrate unless notified otherwise.

☐ 18. Other: _____

Bolded items require sign-off

Client Contacted:

Date of Contact:

Vista Client Manager: _____

Resolution:



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Friday, April 14, 2023

Josh Bale

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

RE: A1K0754 - Weyerhaeuser-Eatonville - 0171.067

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1K0754, which was received by the laboratory on 11/12/2021 at 1:40:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1

5.6 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0754 - 04 14 23 1557

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Drum_IDW_1121	A1K0754-01	Soil	11/09/21 15:30	11/12/21 13:40

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

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55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **0171.067**

Project Manager: **Josh Bale**

Report ID:

A1K0754 - 04 14 23 1557

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Drum_IDW_1121 (A1K0754-01)				Matrix: Soil				
Batch: 21K1121								
Arsenic	3.00	0.616	1.23	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Barium	55.6	0.616	1.23	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Cadmium	ND	0.123	0.246	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Chromium	21.0	0.616	1.23	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Lead	3.34	0.123	0.246	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Mercury	ND	0.0493	0.0985	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Selenium	ND	0.616	1.23	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Silver	ND	0.123	0.246	mg/kg dry	10	11/30/21 02:43	EPA 6020B	

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55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **0171.067**

Project Manager: **Josh Bale**

Report ID:

A1K0754 - 04 14 23 1557

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Drum_IDW_1121 (A1K0754-01)				Matrix: Soil		Batch: 21K0664		
% Solids	85.3	1.00	1.00	%	1	11/17/21 09:48	EPA 8000D	

Apex Laboratories

Philip Nerenberg, Lab Director

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0754 - 04 14 23 1557**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1121 - EPA 3051A						Soil						
Blank (21K1121-BLK1)			Prepared: 11/29/21 11:09 Analyzed: 11/30/21 02:26									
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Cadmium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Chromium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Mercury	ND	0.0385	0.0769	mg/kg wet	10	---	---	---	---	---	---	
Selenium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Silver	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
LCS (21K1121-BS1)			Prepared: 11/29/21 11:09 Analyzed: 11/30/21 02:32									
EPA 6020B												
Arsenic	54.5	0.500	1.00	mg/kg wet	10	50.0	---	109	80-120%	---	---	
Barium	51.6	0.500	1.00	mg/kg wet	10	50.0	---	103	80-120%	---	---	
Cadmium	48.8	0.100	0.200	mg/kg wet	10	50.0	---	98	80-120%	---	---	
Chromium	51.4	0.500	1.00	mg/kg wet	10	50.0	---	103	80-120%	---	---	
Lead	48.6	0.100	0.200	mg/kg wet	10	50.0	---	97	80-120%	---	---	
Mercury	0.897	0.0400	0.0800	mg/kg wet	10	1.00	---	90	80-120%	---	---	
Selenium	25.2	0.500	1.00	mg/kg wet	10	25.0	---	101	80-120%	---	---	
Silver	24.1	0.100	0.200	mg/kg wet	10	25.0	---	96	80-120%	---	---	
Duplicate (21K1121-DUP1)			Prepared: 11/29/21 11:09 Analyzed: 11/30/21 02:59									
QC Source Sample: Non-SDG (A1K1008-01)												
Arsenic	5.19	0.625	1.25	mg/kg dry	10	---	5.08	---	---	2	20%	
Barium	137	0.625	1.25	mg/kg dry	10	---	157	---	---	13	20%	
Cadmium	0.219	0.125	0.250	mg/kg dry	10	---	0.265	---	---	19	20%	
Chromium	25.5	0.625	1.25	mg/kg dry	10	---	22.2	---	---	14	20%	
Lead	38.1	0.125	0.250	mg/kg dry	10	---	38.1	---	---	0.1	20%	
Mercury	0.0587	0.0500	0.100	mg/kg dry	10	---	0.0563	---	---	4	20%	
Selenium	ND	0.625	1.25	mg/kg dry	10	---	ND	---	---	---	20%	
Silver	0.129	0.125	0.250	mg/kg dry	10	---	ND	---	---		20%	

Matrix Spike (21K1121-MS1)

Prepared: 11/29/21 11:09 Analyzed: 11/30/21 03:05

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **0171.067**

Project Manager: **Josh Bale**

Report ID:

A1K0754 - 04 14 23 1557

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1121 - EPA 3051A						Soil						
Matrix Spike (21K1121-MS1)			Prepared: 11/29/21 11:09		Analyzed: 11/30/21 03:05							
QC Source Sample: Non-SDG (A1K1008-01)												
EPA 6020B												
Arsenic	77.8	0.679	1.36	mg/kg dry	10	67.9	5.08	107	75-125%	---	---	Q-04
Barium	229	0.679	1.36	mg/kg dry	10	67.9	157	106	75-125%	---	---	
Cadmium	65.8	0.136	0.271	mg/kg dry	10	67.9	0.265	97	75-125%	---	---	
Chromium	93.2	0.679	1.36	mg/kg dry	10	67.9	22.2	105	75-125%	---	---	
Lead	129	0.136	0.271	mg/kg dry	10	67.9	38.1	134	75-125%	---	---	
Mercury	1.28	0.0543	0.109	mg/kg dry	10	1.36	0.0563	90	75-125%	---	---	
Selenium	33.9	0.679	1.36	mg/kg dry	10	33.9	ND	100	75-125%	---	---	
Silver	33.3	0.136	0.271	mg/kg dry	10	33.9	ND	98	75-125%	---	---	

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0754 - 04 14 23 1557**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 21K0664 - Total Solids (Dry Weight)							Soil						
Duplicate (21K0664-DUP1)			Prepared: 11/16/21 08:57 Analyzed: 11/17/21 09:48										PRO
QC Source Sample: Non-SDG (A1K0344-10)													
% Solids	95.8	1.00	1.00	%	1	---	95.5	---	---	0.3	10%		
Duplicate (21K0664-DUP2)			Prepared: 11/16/21 08:57 Analyzed: 11/17/21 09:48										
QC Source Sample: Non-SDG (A1K0644-02)													
% Solids	56.9	1.00	1.00	%	1	---	57.5	---	---	1	10%		
Duplicate (21K0664-DUP3)			Prepared: 11/16/21 08:57 Analyzed: 11/17/21 09:48										
QC Source Sample: Non-SDG (A1K0750-02)													
% Solids	90.6	1.00	1.00	%	1	---	89.7	---	---	1	10%		
Duplicate (21K0664-DUP4)			Prepared: 11/16/21 19:49 Analyzed: 11/17/21 09:48										
QC Source Sample: Non-SDG (A1K0805-01)													
% Solids	90.3	1.00	1.00	%	1	---	81.9	---	---	10	10%		
Duplicate (21K0664-DUP5)			Prepared: 11/16/21 19:49 Analyzed: 11/17/21 09:48										
QC Source Sample: Non-SDG (A1K0803-01)													
% Solids	51.7	1.00	1.00	%	1	---	53.7	---	---	4	10%		
Duplicate (21K0664-DUP6)			Prepared: 11/16/21 19:49 Analyzed: 11/17/21 09:48										
QC Source Sample: Non-SDG (A1K0809-01)													
% Solids	99.0	1.00	1.00	%	1	---	98.9	---	---	0.02	10%		
Duplicate (21K0664-DUP7)			Prepared: 11/16/21 19:49 Analyzed: 11/17/21 09:48										
QC Source Sample: Non-SDG (A1K0815-02)													
% Solids	76.9	1.00	1.00	%	1	---	76.8	---	---	0.1	10%		

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0754 - 04 14 23 1557****SAMPLE PREPARATION INFORMATION****Total Metals by EPA 6020B (ICPMS)****Prep: EPA 3051A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 21K1121							
A1K0754-01	Soil	EPA 6020B	11/09/21 15:30	11/29/21 11:09	0.476g/50mL	0.5g/50mL	1.05

Percent Dry Weight**Prep: Total Solids (Dry Weight)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 21K0664							
A1K0754-01	Soil	EPA 8000D	11/09/21 15:30	11/16/21 19:49			NA

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **0171.067**

Project Manager: **Josh Bale**

Report ID:

A1K0754 - 04 14 23 1557

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- PRO** Sample has undergone sample processing prior to extraction and analysis.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.

Apex Laboratories

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55 SW Yamhill St, Ste 300
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Project: **Weyerhaeuser-Eatonville**

Project Number: **0171.067**

Project Manager: **Josh Bale**

Report ID:

A1K0754 - 04 14 23 1557

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **0171.067**

Project Manager: **Josh Bale**

Report ID:

A1K0754 - 04 14 23 1557

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **0171.067**

Project Manager: **Josh Bale**

Report ID:

A1K0754 - 04 14 23 1557

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-EatonvilleProject Number: 0171.067Project Manager: Josh Bale

Report ID:

A1K0754 - 04 14 23 1557

APEX LABS COOLER RECEIPT FORM

Client: GSI WS Element WO#: A1 K0754Project/Project #: Weyerhaeuser/0171.067

Delivery Info:

Date/time received: 11-12-21 @ 13:37 By: MKDelivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 11-12-21 @ 17:30 By: ASMChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>5.6</u>						
Received on ice? (Y/N)	<u>X</u>						
Temp. blanks? (Y/N)	<u>X</u>						
Ice type: (Gel/Real/Other)	<u>ICE/Real</u>						
Condition:	<u>GOOD</u>						

Cooler out of temp? (Y/N) No Possible reason why: _____Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 11/16/21 @ 0900 By: LSAll samples intact? Yes ☒ No ☐ Comments: _____Bottle labels/COCs agree? Yes ☒ No ☐ Comments: _____COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments: _____

Water samples: pH checked: Yes ☐ No ☐ NA ☒ pH appropriate? Yes ☐ No ☐ NA ☒

Comments: _____

Additional information: _____

Labeled by: LS Witness: [Signature] Cooler Inspected by: [Signature]

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Friday, April 14, 2023

Josh Bale

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

RE: A2H0521 - Weyerhaeuser-Eatonville - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2H0521, which was received by the laboratory on 8/11/2022 at 6:48:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	0.0 degC	Cooler #2	5.3 degC
Cooler #3	4.2 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL REPORT FOR SAMPLES**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-04G-0.0-0.5	A2H0521-01	Soil	08/09/22 09:05	08/11/22 18:48
HA-03G-0.0-0.5	A2H0521-02	Soil	08/09/22 09:25	08/11/22 18:48
HA-01F-0.0-0.5	A2H0521-03	Soil	08/09/22 10:15	08/11/22 18:48
HA-02F-0.0-0.5	A2H0521-04	Soil	08/09/22 10:35	08/11/22 18:48
HA-102F-0.0-0.5	A2H0521-05	Soil	08/09/22 10:45	08/11/22 18:48
HA-02G-0.0-0.5	A2H0521-06	Soil	08/09/22 11:25	08/11/22 18:48
HA-03F-0.0-0.5	A2H0521-07	Soil	08/09/22 11:50	08/11/22 18:48
HA-04F-0.0-0.5	A2H0521-08	Soil	08/09/22 12:45	08/11/22 18:48
HA-05G-0.0-0.5	A2H0521-09	Soil	08/09/22 13:05	08/11/22 18:48
HA-05F-0.0-0.5	A2H0521-10	Soil	08/09/22 13:30	08/11/22 18:48
HA-04Ab-0.0-0.5	A2H0521-11	Soil	08/10/22 10:25	08/11/22 18:48
HA-05Ab-0.0-0.5	A2H0521-12	Soil	08/10/22 11:00	08/11/22 18:48
HA-105Ab-0.0-0.5	A2H0521-13	Soil	08/10/22 11:10	08/11/22 18:48
HA-06A-0.0-0.5	A2H0521-14	Soil	08/10/22 11:25	08/11/22 18:48
HA-06B-0.0-0.5	A2H0521-15	Soil	08/10/22 11:40	08/11/22 18:48
HA-07A-0.0-0.5	A2H0521-16	Soil	08/10/22 12:05	08/11/22 18:48
HA-07B-0.0-0.5	A2H0521-17	Soil	08/10/22 12:20	08/11/22 18:48
HA-07C-0.0-0.5	A2H0521-18	Soil	08/10/22 12:35	08/11/22 18:48
HA-06C-0.0-0.5	A2H0521-19	Soil	08/10/22 13:00	08/11/22 18:48
HA-06D-0.0-0.5	A2H0521-20	Soil	08/10/22 15:15	08/11/22 18:48
HA-06I-0.0-0.5	A2H0521-21	Soil	08/09/22 14:45	08/11/22 18:48
HA-07I-0.0-0.5	A2H0521-22	Soil	08/09/22 15:05	08/11/22 18:48
HA-07H-0.0-0.5	A2H0521-23	Soil	08/09/22 15:35	08/11/22 18:48
HA-06H-0.0-0.5	A2H0521-24	Soil	08/09/22 15:50	08/11/22 18:48
HA-02Ab-0.0-0.5	A2H0521-25	Soil	08/09/22 17:25	08/11/22 18:48
HA-02Aa-0.0-0.5	A2H0521-26	Soil	08/09/22 17:45	08/11/22 18:48
HA-03Aa-0.0-0.5	A2H0521-27	Soil	08/09/22 18:00	08/11/22 18:48
HA-03Ab-0.0-0.5	A2H0521-28	Soil	08/10/22 09:00	08/11/22 18:48
HA-04Aa-0.0-0.5	A2H0521-29	Soil	08/10/22 09:40	08/11/22 18:48
HA-05Aa-0.0-0.5	A2H0521-30	Soil	08/10/22 09:55	08/11/22 18:48
HA-07D-0.0-0.5	A2H0521-31	Soil	08/10/22 15:35	08/11/22 18:48
HA-06E-0.0-0.5	A2H0521-32	Soil	08/10/22 15:50	08/11/22 18:48
HA-07E-0.0-0.5	A2H0521-33	Soil	08/10/22 16:05	08/11/22 18:48

Apex Laboratories

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL REPORT FOR SAMPLES**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-06F-0.0-0.5	A2H0521-34	Soil	08/10/22 16:20	08/11/22 18:48
HA-07F-0.0-0.5	A2H0521-35	Soil	08/10/22 16:35	08/11/22 18:48
HA-06G-0.0-0.5	A2H0521-36	Soil	08/10/22 16:50	08/11/22 18:48
HA-07G-0.0-0.5	A2H0521-37	Soil	08/10/22 17:05	08/11/22 18:48
HA-X-0.0-0.5	A2H0521-38	Soil	08/11/22 13:35	08/11/22 18:48
HA-01Aa-0.0-0.5	A2H0521-39	Soil	08/11/22 13:45	08/11/22 18:48
HA-01Ab-0.0-0.5	A2H0521-40	Soil	08/11/22 13:55	08/11/22 18:48
HA-04G-0.5-1.0	A2H0521-41	Soil	08/09/22 09:10	08/11/22 18:48
HA-03G-0.5-1.0	A2H0521-42	Soil	08/09/22 09:30	08/11/22 18:48
HA-01F-0.5-1.0	A2H0521-43	Soil	08/09/22 10:20	08/11/22 18:48
HA-02F-0.5-1.0	A2H0521-44	Soil	08/09/22 10:40	08/11/22 18:48
HA-102F-0.5-1.0	A2H0521-45	Soil	08/09/22 10:50	08/11/22 18:48
HA-02G-0.5-1.0	A2H0521-46	Soil	08/09/22 11:30	08/11/22 18:48
HA-03F-0.5-1.0	A2H0521-47	Soil	08/09/22 11:55	08/11/22 18:48
HA-04F-0.5-1.0	A2H0521-48	Soil	08/09/22 12:50	08/11/22 18:48
HA-05G-0.5-1.0	A2H0521-49	Soil	08/09/22 13:10	08/11/22 18:48
HA-05F-0.5-1.0	A2H0521-50	Soil	08/09/22 13:35	08/11/22 18:48
HA-06I-0.5-1.0	A2H0521-51	Soil	08/09/22 14:50	08/11/22 18:48
HA-07I-0.5-1.0	A2H0521-52	Soil	08/09/22 15:10	08/11/22 18:48
HA-07H-0.5-1.0	A2H0521-53	Soil	08/09/22 15:40	08/11/22 18:48
HA-06H-0.5-1.0	A2H0521-54	Soil	08/09/22 15:55	08/11/22 18:48
HA-02Ab-0.5-1.0	A2H0521-55	Soil	08/09/22 17:30	08/11/22 18:48
HA-02Aa-0.5-1.0	A2H0521-56	Soil	08/09/22 17:50	08/11/22 18:48
HA-03Aa-0.5-1.0	A2H0521-57	Soil	08/09/22 18:05	08/11/22 18:48
HA-03Ab-0.5-1.0	A2H0521-58	Soil	08/10/22 09:05	08/11/22 18:48
HA-04Aa-0.5-1.0	A2H0521-59	Soil	08/10/22 09:45	08/11/22 18:48
HA-05Aa-0.5-1.0	A2H0521-60	Soil	08/10/22 10:00	08/11/22 18:48
HA-04Ab-0.5-1.0	A2H0521-61	Soil	08/10/22 10:25	08/11/22 18:48
HA-05Ab-0.5-1.0	A2H0521-62	Soil	08/10/22 11:05	08/11/22 18:48
HA-105Ab-0.5-1.0	A2H0521-63	Soil	08/10/22 11:15	08/11/22 18:48
HA-06A-0.5-1.0	A2H0521-64	Soil	08/10/22 11:30	08/11/22 18:48
HA-06B-0.5-1.0	A2H0521-65	Soil	08/10/22 11:45	08/11/22 18:48
HA-07A-0.5-1.0	A2H0521-66	Soil	08/10/22 12:10	08/11/22 18:48

Apex Laboratories

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL REPORT FOR SAMPLES**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-07B-0.5-1.0	A2H0521-67	Soil	08/10/22 12:25	08/11/22 18:48
HA-07C-0.5-1.0	A2H0521-68	Soil	08/10/22 12:40	08/11/22 18:48
HA-06C-0.5-1.0	A2H0521-69	Soil	08/10/22 13:05	08/11/22 18:48
HA-06D-0.5-1.0	A2H0521-70	Soil	08/10/22 15:20	08/11/22 18:48
HA-07D-0.5-1.0	A2H0521-71	Soil	08/10/22 15:40	08/11/22 18:48
HA-06E-0.5-1.0	A2H0521-72	Soil	08/10/22 15:55	08/11/22 18:48
HA-07E-0.5-1.0	A2H0521-73	Soil	08/10/22 16:10	08/11/22 18:48
HA-06F-0.5-1.0	A2H0521-74	Soil	08/10/22 16:25	08/11/22 18:48
HA-07F-0.5-1.0	A2H0521-75	Soil	08/10/22 16:40	08/11/22 18:48
HA-06G-0.5-1.0	A2H0521-76	Soil	08/10/22 16:55	08/11/22 18:48
HA-07G-0.5-1.0	A2H0521-77	Soil	08/10/22 17:10	08/11/22 18:48
HA-X-0.5-1.0	A2H0521-78	Soil	08/11/22 13:40	08/11/22 18:48
HA-01Aa-0.5-1.0	A2H0521-79	Soil	08/11/22 13:50	08/11/22 18:48
HA-01Ab-0.5-1.0	A2H0521-80	Soil	08/11/22 14:00	08/11/22 18:48
EB-01_0822	A2H0521-81	Water	08/11/22 18:30	08/11/22 18:48

Apex Laboratories

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-04G-0.0-0.5 (A2H0521-01) Matrix: Soil								
Batch: 22H0772								
Lead	10.3	0.123	0.246	mg/kg dry	10	08/23/22 19:33	EPA 6020B	B-02
Zinc	24.7	2.46	4.91	mg/kg dry	10	08/23/22 19:33	EPA 6020B	
HA-03G-0.0-0.5 (A2H0521-02) Matrix: Soil								
Batch: 22H0772								
Lead	12.0	0.123	0.246	mg/kg dry	10	08/23/22 19:49	EPA 6020B	B-02
Zinc	31.6	2.46	4.93	mg/kg dry	10	08/23/22 19:49	EPA 6020B	
HA-01F-0.0-0.5 (A2H0521-03) Matrix: Soil								
Batch: 22H0772								
Lead	27.4	0.244	0.487	mg/kg dry	10	08/23/22 19:55	EPA 6020B	B-02
Zinc	35.3	4.87	9.75	mg/kg dry	10	08/23/22 19:55	EPA 6020B	
HA-02F-0.0-0.5 (A2H0521-04) Matrix: Soil								
Batch: 22H0772								
Lead	25.7	0.173	0.345	mg/kg dry	10	08/23/22 20:00	EPA 6020B	B-02
Zinc	39.9	3.45	6.91	mg/kg dry	10	08/23/22 20:00	EPA 6020B	
HA-102F-0.0-0.5 (A2H0521-05) Matrix: Soil								
Batch: 22H0772								
Lead	27.8	0.205	0.411	mg/kg dry	10	08/23/22 20:05	EPA 6020B	B-02
Zinc	41.2	4.11	8.21	mg/kg dry	10	08/23/22 20:05	EPA 6020B	
HA-02G-0.0-0.5 (A2H0521-06) Matrix: Soil								
Batch: 22H0772								
Lead	7.65	0.118	0.236	mg/kg dry	10	08/23/22 20:10	EPA 6020B	B-02
Zinc	33.8	2.36	4.72	mg/kg dry	10	08/23/22 20:10	EPA 6020B	
HA-03F-0.0-0.5 (A2H0521-07) Matrix: Soil								
Batch: 22H0846								
Lead	55.5	0.196	0.392	mg/kg dry	10	08/24/22 19:38	EPA 6020B	
Zinc	40.3	3.92	7.84	mg/kg dry	10	08/24/22 19:38	EPA 6020B	
HA-04F-0.0-0.5 (A2H0521-08) Matrix: Soil								
Batch: 22H0846								

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-04F-0.0-0.5 (A2H0521-08)				Matrix: Soil				
Lead	10.2	0.178	0.355	mg/kg dry	10	08/24/22 19:53	EPA 6020B	
Zinc	18.9	3.55	7.10	mg/kg dry	10	08/24/22 19:53	EPA 6020B	
HA-05G-0.0-0.5 (A2H0521-09)				Matrix: Soil				
Batch: 22H0846								
Lead	15.8	0.702	1.40	mg/kg dry	10	08/24/22 19:58	EPA 6020B	
Zinc	65.8	14.0	28.1	mg/kg dry	10	08/24/22 19:58	EPA 6020B	
HA-05F-0.0-0.5 (A2H0521-10)				Matrix: Soil				
Batch: 22H0846								
Lead	31.7	0.644	1.29	mg/kg dry	10	08/24/22 20:04	EPA 6020B	
Zinc	733	12.9	25.7	mg/kg dry	10	08/24/22 20:04	EPA 6020B	
HA-04Ab-0.0-0.5 (A2H0521-11)				Matrix: Soil				
Batch: 22H0846								
Lead	31.0	0.542	1.08	mg/kg dry	10	08/24/22 20:09	EPA 6020B	
Zinc	30.0	10.8	21.7	mg/kg dry	10	08/24/22 20:09	EPA 6020B	
HA-05Ab-0.0-0.5 (A2H0521-12)				Matrix: Soil				
Batch: 22H0846								
Lead	102	0.139	0.279	mg/kg dry	10	08/24/22 21:05	EPA 6020B	
Zinc	16.2	2.79	5.57	mg/kg dry	10	08/24/22 21:05	EPA 6020B	
HA-105Ab-0.0-0.5 (A2H0521-13)				Matrix: Soil				
Batch: 22H0846								
Lead	137	0.168	0.336	mg/kg dry	10	08/24/22 21:10	EPA 6020B	
Zinc	19.6	3.36	6.72	mg/kg dry	10	08/24/22 21:10	EPA 6020B	
HA-06A-0.0-0.5 (A2H0521-14)				Matrix: Soil				
Batch: 22H0846								
Lead	176	0.213	0.425	mg/kg dry	10	08/24/22 21:15	EPA 6020B	
Zinc	36.2	4.25	8.51	mg/kg dry	10	08/24/22 21:15	EPA 6020B	
HA-06B-0.0-0.5 (A2H0521-15)				Matrix: Soil				
Batch: 22H0846								
Lead	194	0.319	0.639	mg/kg dry	10	08/24/22 21:20	EPA 6020B	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-06B-0.0-0.5 (A2H0521-15)				Matrix: Soil				
Zinc	19.8	6.39	12.8	mg/kg dry	10	08/24/22 21:20	EPA 6020B	
HA-07A-0.0-0.5 (A2H0521-16)				Matrix: Soil				
Batch: 22H0846								
Lead	66.5	0.233	0.465	mg/kg dry	10	08/24/22 21:26	EPA 6020B	
Zinc	38.9	4.65	9.31	mg/kg dry	10	08/24/22 21:26	EPA 6020B	
HA-07B-0.0-0.5 (A2H0521-17)				Matrix: Soil				
Batch: 22H0846								
Lead	143	0.432	0.864	mg/kg dry	10	08/24/22 21:31	EPA 6020B	
Zinc	45.5	8.64	17.3	mg/kg dry	10	08/24/22 21:31	EPA 6020B	
HA-07C-0.0-0.5 (A2H0521-18)				Matrix: Soil				
Batch: 22H0846								
Lead	112	0.368	0.736	mg/kg dry	10	08/24/22 21:36	EPA 6020B	
Zinc	32.5	7.36	14.7	mg/kg dry	10	08/24/22 21:36	EPA 6020B	
HA-06C-0.0-0.5 (A2H0521-19)				Matrix: Soil				
Batch: 22H0846								
Lead	214	0.607	1.21	mg/kg dry	10	08/24/22 21:41	EPA 6020B	
Zinc	60.8	12.1	24.3	mg/kg dry	10	08/24/22 21:41	EPA 6020B	
HA-06D-0.0-0.5 (A2H0521-20)				Matrix: Soil				
Batch: 22H0846								
Lead	501	0.393	0.786	mg/kg dry	10	08/24/22 21:46	EPA 6020B	
Zinc	410	7.86	15.7	mg/kg dry	10	08/24/22 21:46	EPA 6020B	
HA-06I-0.0-0.5 (A2H0521-21)				Matrix: Soil				
Batch: 22H0846								
Lead	47.6	0.806	1.61	mg/kg dry	10	08/24/22 21:52	EPA 6020B	
Zinc	1990	16.1	32.2	mg/kg dry	10	08/24/22 21:52	EPA 6020B	
HA-07I-0.0-0.5 (A2H0521-22)				Matrix: Soil				
Batch: 22H0846								
Lead	40.1	0.621	1.24	mg/kg dry	10	08/24/22 22:12	EPA 6020B	
Zinc	1910	12.4	24.8	mg/kg dry	10	08/24/22 22:12	EPA 6020B	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:**A2H0521 - 04 14 23 1521****ANALYTICAL SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-07H-0.0-0.5 (A2H0521-23)				Matrix: Soil				
Batch: 22H0846								
Lead	57.2	0.127	0.253	mg/kg dry	10	08/24/22 22:18	EPA 6020B	
Zinc	24.5	2.53	5.06	mg/kg dry	10	08/24/22 22:18	EPA 6020B	
HA-06H-0.0-0.5 (A2H0521-24)				Matrix: Soil				
Batch: 22H0846								
Lead	16.8	0.237	0.474	mg/kg dry	10	08/24/22 22:23	EPA 6020B	
Zinc	24.8	4.74	9.48	mg/kg dry	10	08/24/22 22:23	EPA 6020B	
HA-02Ab-0.0-0.5 (A2H0521-25)				Matrix: Soil				
Batch: 22H0846								
Lead	9.63	0.111	0.222	mg/kg dry	10	08/24/22 22:28	EPA 6020B	
Zinc	32.1	2.22	4.44	mg/kg dry	10	08/24/22 22:28	EPA 6020B	
HA-02Aa-0.0-0.5 (A2H0521-26)				Matrix: Soil				
Batch: 22H0846								
Lead	6.34	0.133	0.267	mg/kg dry	10	08/24/22 22:33	EPA 6020B	
Zinc	31.6	2.67	5.33	mg/kg dry	10	08/24/22 22:33	EPA 6020B	
HA-03Aa-0.0-0.5 (A2H0521-27)				Matrix: Soil				
Batch: 22H0854								
Lead	52.9	0.134	0.268	mg/kg dry	10	08/25/22 20:43	EPA 6020B	
Zinc	29.9	2.68	5.36	mg/kg dry	10	08/25/22 20:43	EPA 6020B	
HA-03Ab-0.0-0.5 (A2H0521-28)				Matrix: Soil				
Batch: 22H0854								
Lead	79.7	0.262	0.523	mg/kg dry	10	08/25/22 20:48	EPA 6020B	
Zinc	11.3	5.23	10.5	mg/kg dry	10	08/25/22 20:48	EPA 6020B	
HA-04Aa-0.0-0.5 (A2H0521-29)				Matrix: Soil				
Batch: 22H0854								
Lead	8.00	0.129	0.258	mg/kg dry	10	08/25/22 20:53	EPA 6020B	
Zinc	37.8	2.58	5.16	mg/kg dry	10	08/25/22 20:53	EPA 6020B	
HA-05Aa-0.0-0.5 (A2H0521-30)				Matrix: Soil				

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05Aa-0.0-0.5 (A2H0521-30)				Matrix: Soil				
Batch: 22H0854								
Lead	163	0.137	0.275	mg/kg dry	10	08/25/22 20:58	EPA 6020B	
Zinc	26.4	2.75	5.50	mg/kg dry	10	08/25/22 20:58	EPA 6020B	
HA-07D-0.0-0.5 (A2H0521-31)				Matrix: Soil				
Batch: 22H0854								
Lead	223	0.537	1.07	mg/kg dry	10	08/25/22 21:04	EPA 6020B	
Zinc	192	10.7	21.5	mg/kg dry	10	08/25/22 21:04	EPA 6020B	
HA-06E-0.0-0.5 (A2H0521-32)				Matrix: Soil				
Batch: 22H0854								
Lead	38.5	0.702	1.40	mg/kg dry	10	08/25/22 21:09	EPA 6020B	
Zinc	291	14.0	28.1	mg/kg dry	10	08/25/22 21:09	EPA 6020B	
HA-07E-0.0-0.5 (A2H0521-33)				Matrix: Soil				
Batch: 22H0854								
Lead	197	0.557	1.11	mg/kg dry	10	08/25/22 21:14	EPA 6020B	
Zinc	548	11.1	22.3	mg/kg dry	10	08/25/22 21:14	EPA 6020B	
HA-06F-0.0-0.5 (A2H0521-34)				Matrix: Soil				
Batch: 22H0854								
Lead	32.6	0.131	0.262	mg/kg dry	10	08/25/22 21:19	EPA 6020B	
Zinc	20.1	2.62	5.24	mg/kg dry	10	08/25/22 21:19	EPA 6020B	
HA-07F-0.0-0.5 (A2H0521-35)				Matrix: Soil				
Batch: 22H0854								
Lead	48.0	0.122	0.244	mg/kg dry	10	08/25/22 21:35	EPA 6020B	
Zinc	16.8	2.44	4.88	mg/kg dry	10	08/25/22 21:35	EPA 6020B	
HA-06G-0.0-0.5 (A2H0521-36)				Matrix: Soil				
Batch: 22H0854								
Lead	49.5	0.142	0.284	mg/kg dry	10	08/25/22 21:40	EPA 6020B	
Zinc	19.0	2.84	5.68	mg/kg dry	10	08/25/22 21:40	EPA 6020B	
HA-07G-0.0-0.5 (A2H0521-37)				Matrix: Soil				
Batch: 22H0854								

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ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-07G-0.0-0.5 (A2H0521-37)				Matrix: Soil				
Lead	9.31	0.122	0.244	mg/kg dry	10	08/25/22 21:45	EPA 6020B	
Zinc	19.4	2.44	4.88	mg/kg dry	10	08/25/22 21:45	EPA 6020B	
HA-X-0.0-0.5 (A2H0521-38)				Matrix: Soil				
Batch: 22H0854								
Lead	679	0.179	0.358	mg/kg dry	10	08/25/22 21:50	EPA 6020B	
Zinc	104	3.58	7.16	mg/kg dry	10	08/25/22 21:50	EPA 6020B	
HA-01Aa-0.0-0.5 (A2H0521-39)				Matrix: Soil				
Batch: 22H0854								
Lead	12.6	0.117	0.233	mg/kg dry	10	08/25/22 21:55	EPA 6020B	
Zinc	32.7	2.33	4.67	mg/kg dry	10	08/25/22 21:55	EPA 6020B	
HA-01Ab-0.0-0.5 (A2H0521-40)				Matrix: Soil				
Batch: 22H0854								
Lead	20.9	0.114	0.229	mg/kg dry	10	08/25/22 22:01	EPA 6020B	
Zinc	37.7	2.29	4.58	mg/kg dry	10	08/25/22 22:01	EPA 6020B	
EB-01_0822 (A2H0521-81)				Matrix: Water				
Batch: 22H0753								
Lead	0.819	0.110	0.200	ug/L	1	08/22/22 22:32	EPA 6020B	
Zinc	2.38	2.00	4.00	ug/L	1	08/22/22 22:32	EPA 6020B	J

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ANALYTICAL REPORT

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-04G-0.0-0.5 (A2H0521-01)				Matrix: Soil		Batch: 22H0673		
% Solids	84.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-03G-0.0-0.5 (A2H0521-02)				Matrix: Soil		Batch: 22H0673		
% Solids	88.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-01F-0.0-0.5 (A2H0521-03)				Matrix: Soil		Batch: 22H0673		
% Solids	41.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-02F-0.0-0.5 (A2H0521-04)				Matrix: Soil		Batch: 22H0673		
% Solids	55.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-102F-0.0-0.5 (A2H0521-05)				Matrix: Soil		Batch: 22H0673		
% Solids	51.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-02G-0.0-0.5 (A2H0521-06)				Matrix: Soil		Batch: 22H0673		
% Solids	82.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-03F-0.0-0.5 (A2H0521-07)				Matrix: Soil		Batch: 22H0673		
% Solids	51.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-04F-0.0-0.5 (A2H0521-08)				Matrix: Soil		Batch: 22H0673		
% Solids	59.0	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-05G-0.0-0.5 (A2H0521-09)				Matrix: Soil		Batch: 22H0673		
% Solids	14.1	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-05F-0.0-0.5 (A2H0521-10)				Matrix: Soil		Batch: 22H0673		
% Solids	15.9	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-04Ab-0.0-0.5 (A2H0521-11)				Matrix: Soil		Batch: 22H0673		
% Solids	19.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-05Ab-0.0-0.5 (A2H0521-12)				Matrix: Soil		Batch: 22H0673		
% Solids	77.3	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-105Ab-0.0-0.5 (A2H0521-13)				Matrix: Soil		Batch: 22H0673		

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-105Ab-0.0-0.5 (A2H0521-13)				Matrix: Soil		Batch: 22H0673		
% Solids	59.3	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06A-0.0-0.5 (A2H0521-14)				Matrix: Soil		Batch: 22H0673		
% Solids	47.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06B-0.0-0.5 (A2H0521-15)				Matrix: Soil		Batch: 22H0673		
% Solids	32.1	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07A-0.0-0.5 (A2H0521-16)				Matrix: Soil		Batch: 22H0673		
% Solids	46.1	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07B-0.0-0.5 (A2H0521-17)				Matrix: Soil		Batch: 22H0673		
% Solids	23.9	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07C-0.0-0.5 (A2H0521-18)				Matrix: Soil		Batch: 22H0673		
% Solids	27.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06C-0.0-0.5 (A2H0521-19)				Matrix: Soil		Batch: 22H0673		
% Solids	17.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06D-0.0-0.5 (A2H0521-20)				Matrix: Soil		Batch: 22H0673		
% Solids	26.2	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06I-0.0-0.5 (A2H0521-21)				Matrix: Soil		Batch: 22H0673		
% Solids	12.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07I-0.0-0.5 (A2H0521-22)				Matrix: Soil		Batch: 22H0673		
% Solids	15.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07H-0.0-0.5 (A2H0521-23)				Matrix: Soil		Batch: 22H0673		
% Solids	83.0	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06H-0.0-0.5 (A2H0521-24)				Matrix: Soil		Batch: 22H0673		
% Solids	43.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-02Ab-0.0-0.5 (A2H0521-25)				Matrix: Soil		Batch: 22H0673		

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02Ab-0.0-0.5 (A2H0521-25)				Matrix: Soil		Batch: 22H0673		
% Solids	89.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-02Aa-0.0-0.5 (A2H0521-26)				Matrix: Soil		Batch: 22H0673		
% Solids	78.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-03Aa-0.0-0.5 (A2H0521-27)				Matrix: Soil		Batch: 22H0673		
% Solids	81.9	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-03Ab-0.0-0.5 (A2H0521-28)				Matrix: Soil		Batch: 22H0673		
% Solids	39.3	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-04Aa-0.0-0.5 (A2H0521-29)				Matrix: Soil		Batch: 22H0673		
% Solids	83.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-05Aa-0.0-0.5 (A2H0521-30)				Matrix: Soil		Batch: 22H0673		
% Solids	77.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07D-0.0-0.5 (A2H0521-31)				Matrix: Soil		Batch: 22H0673		
% Solids	19.3	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06E-0.0-0.5 (A2H0521-32)				Matrix: Soil		Batch: 22H0673		
% Solids	15.2	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07E-0.0-0.5 (A2H0521-33)				Matrix: Soil		Batch: 22H0673		
% Solids	17.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06F-0.0-0.5 (A2H0521-34)				Matrix: Soil		Batch: 22H0673		
% Solids	80.6	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07F-0.0-0.5 (A2H0521-35)				Matrix: Soil		Batch: 22H0673		
% Solids	80.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06G-0.0-0.5 (A2H0521-36)				Matrix: Soil		Batch: 22H0673		
% Solids	73.6	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07G-0.0-0.5 (A2H0521-37)				Matrix: Soil		Batch: 22H0673		

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-07G-0.0-0.5 (A2H0521-37)				Matrix: Soil		Batch: 22H0673		
% Solids	84.2	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-X-0.0-0.5 (A2H0521-38)				Matrix: Soil		Batch: 22H0673		
% Solids	57.2	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-01Aa-0.0-0.5 (A2H0521-39)				Matrix: Soil		Batch: 22H0673		
% Solids	92.1	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-01Ab-0.0-0.5 (A2H0521-40)				Matrix: Soil		Batch: 22H0673		
% Solids	92.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	

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ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0753 - EPA 3015A						Water						
Blank (22H0753-BLK1)			Prepared: 08/22/22 10:15 Analyzed: 08/22/22 22:06									
EPA 6020B												
Lead	ND	0.110	0.200	ug/L	1	---	---	---	---	---	---	B-02, J
Zinc	3.43	2.00	4.00	ug/L	1	---	---	---	---	---	---	
LCS (22H0753-BS1)			Prepared: 08/22/22 10:15 Analyzed: 08/22/22 22:11									
EPA 6020B												
Lead	50.7	0.110	0.200	ug/L	1	55.6	---	91	80-120%	---	---	B-02
Zinc	56.1	2.00	4.00	ug/L	1	55.6	---	101	80-120%	---	---	
Duplicate (22H0753-DUP1)			Prepared: 08/22/22 10:15 Analyzed: 08/22/22 22:37									
QC Source Sample: EB-01_0822 (A2H0521-81)												
EPA 6020B												
Lead	0.829	0.110	0.200	ug/L	1	---	0.819	---	---	1	20%	
Zinc	ND	2.00	4.00	ug/L	1	---	2.38	---	---	***	20%	
Matrix Spike (22H0753-MS1)			Prepared: 08/22/22 10:15 Analyzed: 08/22/22 22:42									
QC Source Sample: EB-01_0822 (A2H0521-81)												
EPA 6020B												
Lead	51.6	0.110	0.200	ug/L	1	55.6	0.819	91	75-125%	---	---	B-02
Zinc	54.9	2.00	4.00	ug/L	1	55.6	2.38	95	75-125%	---	---	
Batch 22H0772 - EPA 3051A						Soil						
Blank (22H0772-BLK1)			Prepared: 08/22/22 15:02 Analyzed: 08/23/22 17:48									
EPA 6020B												
Lead	0.117	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	J, B-02
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	
LCS (22H0772-BS1)			Prepared: 08/22/22 15:02 Analyzed: 08/23/22 17:54									
EPA 6020B												
Lead	48.2	0.100	0.200	mg/kg wet	10	50.0	---	96	80-120%	---	---	B-02
Zinc	48.0	2.00	4.00	mg/kg wet	10	50.0	---	96	80-120%	---	---	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0772 - EPA 3051A						Soil						
Duplicate (22H0772-DUP1)			Prepared: 08/22/22 15:02 Analyzed: 08/23/22 18:04									
QC Source Sample: Non-SDG (A2H0448-03)												
Lead	3.79	0.108	0.216	mg/kg dry	10	---	3.95	---	---	4	20%	B-02
Zinc	24.9	2.16	4.32	mg/kg dry	10	---	35.5	---	---	35	20%	Q-04
Matrix Spike (22H0772-MS1)			Prepared: 08/22/22 15:02 Analyzed: 08/23/22 18:09									
QC Source Sample: Non-SDG (A2H0448-03)												
EPA 6020B												
Lead	54.2	0.110	0.219	mg/kg dry	10	54.8	3.95	92	75-125%	---	---	B-02
Zinc	79.7	2.19	4.39	mg/kg dry	10	54.8	35.5	81	75-125%	---	---	

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Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0846 - EPA 3051A						Soil						
Blank (22H0846-BLK1)			Prepared: 08/24/22 09:33 Analyzed: 08/24/22 14:01									
<u>EPA 6020B</u>												
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	
Blank (22H0846-BLK2)			Prepared: 08/24/22 09:33 Analyzed: 08/24/22 19:27									
<u>EPA 6020B</u>												
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	Q-16
LCS (22H0846-BS1)			Prepared: 08/24/22 09:33 Analyzed: 08/24/22 14:06									
<u>EPA 6020B</u>												
Zinc	46.7	2.00	4.00	mg/kg wet	10	50.0	---	93	80-120%	---	---	
LCS (22H0846-BS2)			Prepared: 08/24/22 09:33 Analyzed: 08/24/22 19:32									
<u>EPA 6020B</u>												
Lead	42.5	0.100	0.200	mg/kg wet	10	50.0	---	85	80-120%	---	---	Q-16
Duplicate (22H0846-DUP1)			Prepared: 08/24/22 09:33 Analyzed: 08/24/22 19:43									
<u>QC Source Sample: HA-03F-0.0-0.5 (A2H0521-07)</u>												
<u>EPA 6020B</u>												
Lead	54.1	0.205	0.409	mg/kg dry	10	---	55.5	---	---	3	20%	
Zinc	39.6	4.09	8.19	mg/kg dry	10	---	40.3	---	---	2	20%	
Matrix Spike (22H0846-MS1)			Prepared: 08/24/22 09:33 Analyzed: 08/24/22 19:48									
<u>QC Source Sample: HA-03F-0.0-0.5 (A2H0521-07)</u>												
<u>EPA 6020B</u>												
Lead	150	0.209	0.417	mg/kg dry	10	104	55.5	90	75-125%	---	---	
Zinc	144	4.17	8.34	mg/kg dry	10	104	40.3	99	75-125%	---	---	

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0854 - EPA 3051A						Soil						
Blank (22H0854-BLK1)			Prepared: 08/24/22 11:14 Analyzed: 08/25/22 16:26									
EPA 6020B												
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	
LCS (22H0854-BS1)			Prepared: 08/24/22 11:14 Analyzed: 08/25/22 16:37									
EPA 6020B												
Lead	46.9	0.100	0.200	mg/kg wet	10	50.0	---	94	80-120%	---	---	
Zinc	48.8	2.00	4.00	mg/kg wet	10	50.0	---	98	80-120%	---	---	
Duplicate (22H0854-DUP1)			Prepared: 08/24/22 11:14 Analyzed: 08/25/22 17:03									
QC Source Sample: Non-SDG (A2H0433-02)												
Lead	89.6	0.101	0.202	mg/kg dry	10	---	86.5	---	---	3	20%	PRO
Zinc	106	2.02	4.05	mg/kg dry	10	---	106	---	---	0.4	20%	PRO
Matrix Spike (22H0854-MS1)			Prepared: 08/24/22 11:14 Analyzed: 08/25/22 17:08									
QC Source Sample: Non-SDG (A2H0433-02)												
EPA 6020B												
Lead	133	0.0997	0.199	mg/kg dry	10	49.8	86.5	93	75-125%	---	---	PRO
Zinc	159	1.99	3.99	mg/kg dry	10	49.8	106	107	75-125%	---	---	PRO

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GSI Water Solutions

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Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0673 - Total Solids (Dry Weight)						Soil						
Duplicate (22H0673-DUP1)			Prepared: 08/18/22 13:59 Analyzed: 08/19/22 07:03						PRO			
<u>QC Source Sample: Non-SDG (A2H0353-02)</u>												
% Solids	97.9	1.00	1.00	%	1	---	97.9	---	---	0.05	10%	
Duplicate (22H0673-DUP2)			Prepared: 08/18/22 13:59 Analyzed: 08/19/22 07:03						PRO			
<u>QC Source Sample: Non-SDG (A2H0353-04)</u>												
% Solids	97.6	1.00	1.00	%	1	---	97.7	---	---	0.1	10%	
Duplicate (22H0673-DUP3)			Prepared: 08/18/22 13:59 Analyzed: 08/19/22 07:03						PRO			
<u>QC Source Sample: Non-SDG (A2H0353-06)</u>												
% Solids	97.8	1.00	1.00	%	1	---	97.8	---	---	0.0007	10%	
Duplicate (22H0673-DUP4)			Prepared: 08/18/22 13:59 Analyzed: 08/19/22 07:03									
<u>QC Source Sample: HA-04G-0.0-0.5 (A2H0521-01)</u>												
<u>EPA 8000D</u>												
% Solids	87.8	1.00	1.00	%	1	---	84.8	---	---	3	10%	
Duplicate (22H0673-DUP5)			Prepared: 08/18/22 13:59 Analyzed: 08/19/22 07:03									
<u>QC Source Sample: HA-03G-0.0-0.5 (A2H0521-02)</u>												
<u>EPA 8000D</u>												
% Solids	93.6	1.00	1.00	%	1	---	88.8	---	---	5	10%	
Duplicate (22H0673-DUP6)			Prepared: 08/18/22 13:59 Analyzed: 08/19/22 07:03									
<u>QC Source Sample: HA-01F-0.0-0.5 (A2H0521-03)</u>												
<u>EPA 8000D</u>												
% Solids	45.5	1.00	1.00	%	1	---	41.8	---	---	8	10%	
Duplicate (22H0673-DUP7)			Prepared: 08/18/22 18:41 Analyzed: 08/19/22 07:03									
<u>QC Source Sample: Non-SDG (A2H0617-01)</u>												
% Solids	73.1	1.00	1.00	%	1	---	73.4	---	---	0.4	10%	
Duplicate (22H0673-DUP8)			Prepared: 08/18/22 18:41 Analyzed: 08/19/22 07:03									

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS**Percent Dry Weight**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0673 - Total Solids (Dry Weight)							Soil					
Duplicate (22H0673-DUP8)			Prepared: 08/18/22 18:41 Analyzed: 08/19/22 07:03									
QC Source Sample: Non-SDG (A2H0617-02)												
% Solids	74.0	1.00	1.00	%	1	---	74.1	---	---	0.2	10%	
Duplicate (22H0673-DUP9)			Prepared: 08/18/22 20:15 Analyzed: 08/19/22 07:03									
QC Source Sample: Non-SDG (A2H0629-01)												
% Solids	90.9	1.00	1.00	%	1	---	89.9	---	---	1	10%	
Duplicate (22H0673-DUPA)			Prepared: 08/18/22 20:15 Analyzed: 08/19/22 07:03									
QC Source Sample: Non-SDG (A2H0629-02)												
% Solids	88.8	1.00	1.00	%	1	---	87.7	---	---	1	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:**A2H0521 - 04 14 23 1521****SAMPLE PREPARATION INFORMATION****Total Metals by EPA 6020B (ICPMS)****Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22H0753							
A2H0521-81	Water	EPA 6020B	08/11/22 18:30	08/22/22 10:15	45mL/50mL	45mL/50mL	1.00

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22H0772							
A2H0521-01	Soil	EPA 6020B	08/09/22 09:05	08/22/22 15:02	0.48g/50mL	0.5g/50mL	1.04
A2H0521-02	Soil	EPA 6020B	08/09/22 09:25	08/22/22 15:02	0.457g/50mL	0.5g/50mL	1.09
A2H0521-03	Soil	EPA 6020B	08/09/22 10:15	08/22/22 15:02	0.491g/50mL	0.5g/50mL	1.02
A2H0521-04	Soil	EPA 6020B	08/09/22 10:35	08/22/22 15:02	0.519g/50mL	0.5g/50mL	0.96
A2H0521-05	Soil	EPA 6020B	08/09/22 10:45	08/22/22 15:02	0.474g/50mL	0.5g/50mL	1.05
A2H0521-06	Soil	EPA 6020B	08/09/22 11:25	08/22/22 15:02	0.512g/50mL	0.5g/50mL	0.98
Batch: 22H0846							
A2H0521-07	Soil	EPA 6020B	08/09/22 11:50	08/24/22 09:33	0.494g/50mL	0.5g/50mL	1.01
A2H0521-08	Soil	EPA 6020B	08/09/22 12:45	08/24/22 09:33	0.477g/50mL	0.5g/50mL	1.05
A2H0521-09	Soil	EPA 6020B	08/09/22 13:05	08/24/22 09:33	0.505g/50mL	0.5g/50mL	0.99
A2H0521-10	Soil	EPA 6020B	08/09/22 13:30	08/24/22 09:33	0.488g/50mL	0.5g/50mL	1.02
A2H0521-11	Soil	EPA 6020B	08/10/22 10:25	08/24/22 09:33	0.476g/50mL	0.5g/50mL	1.05
A2H0521-12	Soil	EPA 6020B	08/10/22 11:00	08/24/22 09:33	0.464g/50mL	0.5g/50mL	1.08
A2H0521-13	Soil	EPA 6020B	08/10/22 11:10	08/24/22 09:33	0.502g/50mL	0.5g/50mL	1.00
A2H0521-14	Soil	EPA 6020B	08/10/22 11:25	08/24/22 09:33	0.496g/50mL	0.5g/50mL	1.01
A2H0521-15	Soil	EPA 6020B	08/10/22 11:40	08/24/22 09:33	0.487g/50mL	0.5g/50mL	1.03
A2H0521-16	Soil	EPA 6020B	08/10/22 12:05	08/24/22 09:33	0.466g/50mL	0.5g/50mL	1.07
A2H0521-17	Soil	EPA 6020B	08/10/22 12:20	08/24/22 09:33	0.485g/50mL	0.5g/50mL	1.03
A2H0521-18	Soil	EPA 6020B	08/10/22 12:35	08/24/22 09:33	0.495g/50mL	0.5g/50mL	1.01
A2H0521-19	Soil	EPA 6020B	08/10/22 13:00	08/24/22 09:33	0.472g/50mL	0.5g/50mL	1.06
A2H0521-20	Soil	EPA 6020B	08/10/22 15:15	08/24/22 09:33	0.486g/50mL	0.5g/50mL	1.03
A2H0521-21	Soil	EPA 6020B	08/09/22 14:45	08/24/22 09:33	0.498g/50mL	0.5g/50mL	1.00
A2H0521-22	Soil	EPA 6020B	08/09/22 15:05	08/24/22 09:33	0.509g/50mL	0.5g/50mL	0.98
A2H0521-23	Soil	EPA 6020B	08/09/22 15:35	08/24/22 09:33	0.476g/50mL	0.5g/50mL	1.05
A2H0521-24	Soil	EPA 6020B	08/09/22 15:50	08/24/22 09:33	0.483g/50mL	0.5g/50mL	1.04
A2H0521-25	Soil	EPA 6020B	08/09/22 17:25	08/24/22 09:33	0.503g/50mL	0.5g/50mL	0.99
A2H0521-26	Soil	EPA 6020B	08/09/22 17:45	08/24/22 09:33	0.478g/50mL	0.5g/50mL	1.05
Batch: 22H0854							
A2H0521-27	Soil	EPA 6020B	08/09/22 18:00	08/24/22 11:14	0.456g/50mL	0.5g/50mL	1.10
A2H0521-28	Soil	EPA 6020B	08/10/22 09:00	08/24/22 11:14	0.486g/50mL	0.5g/50mL	1.03

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: **Josh Bale****Report ID:****A2H0521 - 04 14 23 1521****SAMPLE PREPARATION INFORMATION****Total Metals by EPA 6020B (ICPMS)****Prep: EPA 3051A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2H0521-29	Soil	EPA 6020B	08/10/22 09:40	08/24/22 11:14	0.463g/50mL	0.5g/50mL	1.08
A2H0521-30	Soil	EPA 6020B	08/10/22 09:55	08/24/22 11:14	0.468g/50mL	0.5g/50mL	1.07
A2H0521-31	Soil	EPA 6020B	08/10/22 15:35	08/24/22 11:14	0.482g/50mL	0.5g/50mL	1.04
A2H0521-32	Soil	EPA 6020B	08/10/22 15:50	08/24/22 11:14	0.469g/50mL	0.5g/50mL	1.07
A2H0521-33	Soil	EPA 6020B	08/10/22 16:05	08/24/22 11:14	0.513g/50mL	0.5g/50mL	0.98
A2H0521-34	Soil	EPA 6020B	08/10/22 16:20	08/24/22 11:14	0.473g/50mL	0.5g/50mL	1.06
A2H0521-35	Soil	EPA 6020B	08/10/22 16:35	08/24/22 11:14	0.507g/50mL	0.5g/50mL	0.99
A2H0521-36	Soil	EPA 6020B	08/10/22 16:50	08/24/22 11:14	0.479g/50mL	0.5g/50mL	1.04
A2H0521-37	Soil	EPA 6020B	08/10/22 17:05	08/24/22 11:14	0.487g/50mL	0.5g/50mL	1.03
A2H0521-38	Soil	EPA 6020B	08/11/22 13:35	08/24/22 11:14	0.488g/50mL	0.5g/50mL	1.02
A2H0521-39	Soil	EPA 6020B	08/11/22 13:45	08/24/22 11:14	0.465g/50mL	0.5g/50mL	1.08
A2H0521-40	Soil	EPA 6020B	08/11/22 13:55	08/24/22 11:14	0.473g/50mL	0.5g/50mL	1.06

Percent Dry Weight**Prep: Total Solids (Dry Weight)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22H0673							
A2H0521-01	Soil	EPA 8000D	08/09/22 09:05	08/18/22 13:59			NA
A2H0521-02	Soil	EPA 8000D	08/09/22 09:25	08/18/22 13:59			NA
A2H0521-03	Soil	EPA 8000D	08/09/22 10:15	08/18/22 13:59			NA
A2H0521-04	Soil	EPA 8000D	08/09/22 10:35	08/18/22 13:59			NA
A2H0521-05	Soil	EPA 8000D	08/09/22 10:45	08/18/22 13:59			NA
A2H0521-06	Soil	EPA 8000D	08/09/22 11:25	08/18/22 13:59			NA
A2H0521-07	Soil	EPA 8000D	08/09/22 11:50	08/18/22 13:59			NA
A2H0521-08	Soil	EPA 8000D	08/09/22 12:45	08/18/22 13:59			NA
A2H0521-09	Soil	EPA 8000D	08/09/22 13:05	08/18/22 13:59			NA
A2H0521-10	Soil	EPA 8000D	08/09/22 13:30	08/18/22 13:59			NA
A2H0521-11	Soil	EPA 8000D	08/10/22 10:25	08/18/22 13:59			NA
A2H0521-12	Soil	EPA 8000D	08/10/22 11:00	08/18/22 13:59			NA
A2H0521-13	Soil	EPA 8000D	08/10/22 11:10	08/18/22 13:59			NA
A2H0521-14	Soil	EPA 8000D	08/10/22 11:25	08/18/22 13:59			NA
A2H0521-15	Soil	EPA 8000D	08/10/22 11:40	08/18/22 13:59			NA
A2H0521-16	Soil	EPA 8000D	08/10/22 12:05	08/18/22 13:59			NA
A2H0521-17	Soil	EPA 8000D	08/10/22 12:20	08/18/22 13:59			NA
A2H0521-18	Soil	EPA 8000D	08/10/22 12:35	08/18/22 13:59			NA
A2H0521-19	Soil	EPA 8000D	08/10/22 13:00	08/18/22 13:59			NA

Apex Laboratories

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: **Josh Bale****Report ID:****A2H0521 - 04 14 23 1521****SAMPLE PREPARATION INFORMATION****Percent Dry Weight****Prep: Total Solids (Dry Weight)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2H0521-20	Soil	EPA 8000D	08/10/22 15:15	08/18/22 13:59			NA
A2H0521-21	Soil	EPA 8000D	08/09/22 14:45	08/18/22 13:59			NA
A2H0521-22	Soil	EPA 8000D	08/09/22 15:05	08/18/22 13:59			NA
A2H0521-23	Soil	EPA 8000D	08/09/22 15:35	08/18/22 13:59			NA
A2H0521-24	Soil	EPA 8000D	08/09/22 15:50	08/18/22 13:59			NA
A2H0521-25	Soil	EPA 8000D	08/09/22 17:25	08/18/22 13:59			NA
A2H0521-26	Soil	EPA 8000D	08/09/22 17:45	08/18/22 13:59			NA
A2H0521-27	Soil	EPA 8000D	08/09/22 18:00	08/18/22 13:59			NA
A2H0521-28	Soil	EPA 8000D	08/10/22 09:00	08/18/22 13:59			NA
A2H0521-29	Soil	EPA 8000D	08/10/22 09:40	08/18/22 13:59			NA
A2H0521-30	Soil	EPA 8000D	08/10/22 09:55	08/18/22 13:59			NA
A2H0521-31	Soil	EPA 8000D	08/10/22 15:35	08/18/22 13:59			NA
A2H0521-32	Soil	EPA 8000D	08/10/22 15:50	08/18/22 13:59			NA
A2H0521-33	Soil	EPA 8000D	08/10/22 16:05	08/18/22 13:59			NA
A2H0521-34	Soil	EPA 8000D	08/10/22 16:20	08/18/22 13:59			NA
A2H0521-35	Soil	EPA 8000D	08/10/22 16:35	08/18/22 13:59			NA
A2H0521-36	Soil	EPA 8000D	08/10/22 16:50	08/18/22 13:59			NA
A2H0521-37	Soil	EPA 8000D	08/10/22 17:05	08/18/22 13:59			NA
A2H0521-38	Soil	EPA 8000D	08/11/22 13:35	08/18/22 13:59			NA
A2H0521-39	Soil	EPA 8000D	08/11/22 13:45	08/18/22 13:59			NA
A2H0521-40	Soil	EPA 8000D	08/11/22 13:55	08/18/22 13:59			NA

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- PRO** Sample has undergone sample processing prior to extraction and analysis.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-16** Reanalysis of an original Batch QC sample.

Apex Laboratories

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

APEX LABS		CHAIN OF CUSTODY		GSI Water Solutions		Project Mgr: Josh Bale		Project Name: Weyerhaeuser - Eatonville Landfill		Project #: 171.067														
6700 SW Sandburg St, Tigard, OR 97223 Ph: 503-718-2323		Lab # <u>A2H0521</u> COC # <u>1 of 9</u>		Address: 55 SW Yamhill St #200, Portland OR 97204		Phone: 530-276-4188		Email: jhale@gsiws.com, gschurizis@gsiws.com		PO #														
ANALYSIS REQUEST																								
Sample ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-DX	NWTPH-GX	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Zn, Ti, V, Zn	TCLP	TCLP Metals (8)	Zn, Pb	Archive	
HA-04G-0.0-0.5		8/9/2022	905	SO	2																			1 of 2
HA-03G-0.0-0.5		8/9/2022	925	SO	2																			1 of 2
HA-01F-0.0-0.5		8/9/2022	1015	SO	2																			1 of 2
HA-02F-0.0-0.5		8/9/2022	1035	SO	2																			1 of 2
HA-102F-0.0-0.5		8/9/2022	1045	SO	2																			1 of 2
HA-02G-0.0-0.5		8/9/2022	1125	SO	2																			1 of 2
HA-03F-0.0-0.5		8/9/2022	1150	SO	2																			1 of 2
HA-04F-0.0-0.5		8/9/2022	1245	SO	2																			1 of 2
HA-05G-0.0-0.5		8/9/2022	1305	SO	2																			1 of 2
HA-05F-0.0-0.5		8/9/2022	1330	SO	2																			1 of 2
Normal Turn Around Time (TAT) = 10 Business Days												SPECIAL INSTRUCTIONS:												
TAT Requested (circle)												Please archive one of the two matching samples (archive samples are labeled with "A" on the lid and label).												
1 Day												3 Day												
4 DAY												5 DAY												
Other: standard																								
SAMPLES ARE HELD FOR 30 DAYS																								
RELINQUISHED BY: Signature: <u>[Signature]</u> Date: <u>8/11/22</u>												RECEIVED BY: Signature: <u>[Signature]</u> Date: <u>8/11/22</u>												
Printed Name: <u>Philip Nerenberg</u> Time: <u>18:45</u>												Printed Name: <u>Josh Bale</u> Time: <u>18:48</u>												
Company: <u>GSI</u>												Company: <u>Apex</u>												

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

CHAIN OF CUSTODY

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Lab # A2H0521 COC 3 of 9

Company: GSI Water Solutions	Project Mgr: Josh Bale	Project Name: Weyerhaeuser - Eatonville Landfill	Project #: 171.067
Address: 55 SW Yamhill St #200, Portland OR 97204		Phone: 530-276-4188	Email: j.bale@gsws.com, eschurzus@gsws.com
Sampled by: GSI			
Site Location: OR WA CA			
AK ID			
LAB ID #			
DATE			
TIME			
MATRIX			
# OF CONTAINERS			
NWTPH-HCD			
NWTPH-DX			
NWTPH-CX			
8260 BTEX			
8260 RBDM VOCs			
8260 Halo VOCs			
8260 VOCs Full List			
8270 SIM PAHs			
8270 Semi-Vol Full List			
8082 PCBs			
8081 Pest			
RCRA Metals (8)			
Priority Metals (13)			
Al, Sb, As, Ba, Be, Cd, Cr, Cu, Fe, Pb, Hg, Mn, Mo, Ni, K, Se, Ag, Na, Ti, V, Zn			
TOTAL DISS. TCLP			
TCLP Metals (8)			
Zn, Pb			
Archive			
SAMPLE ID			
HA-06H-0-0-0.5			
8/9/2022			
1445			
SO			
2			
HA-07H-0-0-0.5			
8/9/2022			
1505			
SO			
2			
HA-07H-0-0-0.5			
8/9/2022			
1535			
SO			
2			
HA-06H-0-0-0.5			
8/9/2022			
1550			
SO			
2			
HA-02Ab-0-0-0.5			
8/9/2022			
1725			
SO			
2			
HA-02Aa-0-0-0.5			
8/9/2022			
1745			
SO			
2			
HA-03Aa-0-0-0.5			
8/9/2022			
1800			
SO			
2			
HA-03Ab-0-0-0.5			
8/10/2022			
900			
SO			
2			
HA-04Aa-0-0-0.5			
8/10/2022			
940			
SO			
2			
HA-05Aa-0-0-0.5			
8/10/2022			
955			
SO			
2			
Normal Turn Around Time (TAT) = 10 Business Days			
SPECIAL INSTRUCTIONS:			
Please archive one of the two matching samples (archive samples are labeled with 'A' on the lid and label).			
TAT Requested (circle)			
1 Day 2 Day 3 Day 4 DAY 5 DAY Other: standard			
SAMPLES ARE HELD FOR 30 DAYS			
RELINQUISHED BY: Signature: Date: 11/23/22			
Signature: Date: 8/11/22			
Printed Name: Kenramuripa			
Time: 18:48			
Signature: Ape			
Printed Name: GSI			
Time: 18:48			

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

CHAIN OF CUSTODY

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Lab # A2H0521 coc 6 of 7

Company: GSI Water Solutions	Project Mgr: Josh Bale	Project Name: Weyerhaeuser - Eatonville Landfill	Project #: 171.067
Address: 55 SW Yamhill St #200, Portland OR 97204		Email: jhale@gsws.com, gschultz@gsws.com	PO #: 171.067
Phone: 530-276-4188			
Sampled by: GSI			
Site Location: OR WA CA AK ID			
ANALYSIS REQUEST			
SAMPLE ID	DATE	TIME	MATRIX
HA-061-0.5-1.0	8/9/2022	1450	SO 1
HA-071-0.5-1.0	8/9/2022	1510	SO 1
HA-07H-0.5-1.0	8/9/2022	1540	SO 1
HA-06H-0.5-1.0	8/9/2022	1555	SO 1
HA-02Ab-0.5-1.0	8/9/2022	1730	SO 1
HA-02Aa-0.5-1.0	8/9/2022	1750	SO 1
HA-03Aa-0.5-1.0	8/9/2022	1805	SO 1
HA-03Ab-0.5-1.0	8/10/2022	905	SO 1
HA-04Aa-0.5-1.0	8/10/2022	945	SO 1
HA-05Aa-0.5-1.0	8/10/2022	1000	SO 1
Normal Turn Around Time (TAT) = 10 Business Days			
SPECIAL INSTRUCTIONS: Archive all			
TAT Requested (circle) 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: standard			
SAMPLES ARE HELD FOR 30 DAYS			
RELINQUISHED BY: Signature: <u>[Signature]</u> Date: <u>8/10/22</u>	RECEIVED BY: Signature: <u>[Signature]</u> Date: <u>8/10/22</u>		
Printed Name: <u>Phil Nerenberg</u>	Printed Name: <u>Phil Nerenberg</u>		
Company: <u>GSI</u>	Company: <u>Apex</u>		

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

CHAIN OF CUSTODY

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Lab # A2H0521 ccs 8 of 9

Company: GSI Water Solutions	Project Mgr: Josh Bale	Project Name: Weyerhaeuser - Eatonville Landfill	Project #: 171.067
Address: 55 SW Yamhill St #200, Portland OR 97204	Phone: 530-276-4188	Email: j.bale@gsws.com, jcschulz@gsws.com	PO #: 171.067
Sampled by: GSI			
Site Location: OR WA CA	ANALYSIS REQUEST		
AK ID	ARCHIVE		
SAMPLE ID	LAB ID #	DATE	TIME
HA-07D-0.5-1.0	8/10/2022	1540	SO
HA-06E-0.5-1.0	8/10/2022	1555	SO
HA-07E-0.5-1.0	8/10/2022	1610	SO
HA-06F-0.5-1.0	8/10/2022	1625	SO
HA-07F-0.5-1.0	8/10/2022	1640	SO
HA-08G-0.5-1.0	8/10/2022	1655	SO
HA-07G-0.5-1.0	8/10/2022	1710	SO
HA-X-0.5-1.0	8/11/2022	1340	SO
HA-01A-0.5-1.0	8/11/2022	1350	SO
HA-01A-0.5-1.0	8/11/2022	1400	SO
Normal Turn Around Time (TAT) - 10 Business Days			
TAT Requested (circle) 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: standard			
SPECIAL INSTRUCTIONS: Archive all			
RELINQUISHED BY: Signature: Date: RECEIVED BY: Signature: Date:			
Printed Name: Printed Name: Time: Time:			
Company: Company:			

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

Lab # A2H0521 coc 9 of 9

CHAIN OF CUSTODY

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Company: GSI Water Solutions	Project Mgr: Josh Bale	Project Name: Weyerhaeuser - Eatonville Landfill	Project #: 171 067
Address: 55 SW Yamhill St #200, Portland OR 97204	Phone: 530-276-4188	Email: jhale@gsws.com, gshuriz@gsws.com	PO # 171 067
Sampled by: GSI			
Site Location: OR WA CA AK ID	ANALYSIS REQUEST		
LAB ID #	DATE	TIME	MATRIX
EB-01 0822	8/11/2022	1830	SW
# OF CONTAINERS 1			
TAT Requested (circle) 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: standard			
SPECIAL INSTRUCTIONS			
RELINQUISHED BY: Signature: Date: 8/11/22			
Signature: Date: 8/11/22			
Printed Name: Time: 18:48			
Company: GSI			

Apex Laboratories

Philip Nerenberg

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

APEX LABS COOLER RECEIPT FORM

Client: GSI Water Solutions Element WO#: A2 H0521Project/Project #: Weyerhaeuser-Eatonville Landfill

Delivery Info:

Date/time received: 8/11/22 @ 18:48 By: RAMDelivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 8/11/22 @ 18:48 By: RAMChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	0.0	5.3	4.2				
Received on ice? (Y/N)	Y	Y	Y				
Temp. blanks? (Y/N)	N	N	N				
Ice type: (Gel/Real/Other)	Real	Real	Real				
Condition:	Good	Good	Good				

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 8/11/22 @ 12:30 By: AKKAll samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☐ No ☒ Comments: HA-X-0.0-0.5 + HA-01Aa-0.0-0.5 + HA-01Ab-0.0-0.5 + HA-X-0.5-1.0 + HA-01Aa-0.5-1.0 + HA-01Ab-0.5-1.0COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☒ pH appropriate? Yes ☒ No ☐ NA ☒ AKK 8/11/22

Comments:

Additional information: + EP-01-0822 date reads 8/12/22. HA-04Ab-0.5-1.0 time reads 10:30.

Labeled by:

AKK

Witness:

DJS

Cooler Inspected by:

AKK for KPS

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Friday, April 14, 2023

Josh Bale
GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

RE: A2I0312 - Weyerhaeuser-Eatonville - Landfill

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2I0312, which was received by the laboratory on 9/9/2022 at 2:35:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	2.6 degC
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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Weyerhaeuser-Eatonville**Project Number: **Landfill**Project Manager: **Josh Bale****Report ID:****A2I0312 - 04 14 23 1513****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IDW-20220907	A2I0312-01	Sediment	09/07/22 10:30	09/09/22 14:35
HA-04A-0.5-1.0	A2I0312-02	Sediment	09/07/22 13:45	09/09/22 14:35
HA-04A-1.0-2.0	A2I0312-03	Sediment	09/07/22 14:00	09/09/22 14:35
HA-05A-0.5-1.0	A2I0312-04	Sediment	09/07/22 15:10	09/09/22 14:35
HA-05A-1.0-2.0	A2I0312-05	Sediment	09/07/22 15:20	09/09/22 14:35
HA-06D-0.5-1.0	A2I0312-06	Sediment	09/07/22 16:00	09/09/22 14:35
HA-06D-1.0-2.0	A2I0312-07	Sediment	09/07/22 16:05	09/09/22 14:35
HA-07C-0.5-1.0	A2I0312-08	Sediment	09/08/22 08:45	09/09/22 14:35
HA-07C-1.0-2.0	A2I0312-09	Sediment	09/08/22 08:50	09/09/22 14:35
HA-02D-1.0-2.0	A2I0312-10	Sediment	09/08/22 10:10	09/09/22 14:35
HA-02E-1.0-2.0	A2I0312-11	Sediment	09/08/22 10:45	09/09/22 14:35
HA-03E-1.0-2.0	A2I0312-12	Sediment	09/08/22 11:50	09/09/22 14:35
HA-04D-0.5-1.0	A2I0312-13	Sediment	09/08/22 13:10	09/09/22 14:35
HA-04D-1.0-2.0	A2I0312-14	Sediment	09/08/22 13:15	09/09/22 14:35
HA-05E-0.5-1.0	A2I0312-15	Sediment	09/08/22 13:45	09/09/22 14:35
HA-05E-1.0-2.0	A2I0312-16	Sediment	09/08/22 13:50	09/09/22 14:35
HA-03F-0.5-1.0	A2I0312-17	Sediment	09/08/22 14:40	09/09/22 14:35
HA-03F-1.0-2.0	A2I0312-18	Sediment	09/08/22 14:45	09/09/22 14:35

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-EatonvilleProject Number: **Landfill**Project Manager: **Josh Bale**Report ID:**A2I0312 - 04 14 23 1513**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
IDW-20220907 (A2I0312-01)				Matrix: Sediment				
Batch: 22I0453								
Antimony	ND	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Arsenic	3.50	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Barium	91.5	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	Q-42
Beryllium	0.329	0.0616	0.123	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Cadmium	0.120	0.0616	0.123	mg/kg dry	5	09/16/22 00:17	EPA 6020B	J
Chromium	47.3	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	Q-42
Cobalt	9.39	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Copper	22.5	0.616	1.23	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Lead	4.58	0.0616	0.123	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Mercury	0.0393	0.0246	0.0493	mg/kg dry	5	09/16/22 00:17	EPA 6020B	J
Nickel	39.3	0.616	1.23	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Selenium	ND	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Silver	ND	0.0616	0.123	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Thallium	ND	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Vanadium	59.0	0.616	1.23	mg/kg dry	5	09/16/22 00:17	EPA 6020B	Q-42
Zinc	70.2	1.23	2.46	mg/kg dry	5	09/16/22 00:17	EPA 6020B	Q-39, Q-42

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**
Project Number: **Landfill**
Project Manager: **Josh Bale**

Report ID:
A2I0312 - 04 14 23 1513

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
IDW-20220907 (A2I0312-01)		Matrix: Sediment						
Batch: 22I0882								
Arsenic	ND	0.0500	0.100	mg/L	10	09/28/22 12:29	1311/6020B	
Barium	ND	2.50	5.00	mg/L	10	09/28/22 12:29	1311/6020B	
Beryllium	ND	0.0500	0.100	mg/L	10	09/28/22 12:29	1311/6020B	
Chromium	ND	0.0500	0.100	mg/L	10	09/28/22 12:29	1311/6020B	
Cobalt	ND	0.0500	0.100	mg/L	10	09/28/22 12:29	1311/6020B	
Copper	ND	0.100	0.200	mg/L	10	09/28/22 12:29	1311/6020B	
Lead	ND	0.0250	0.0500	mg/L	10	09/28/22 12:29	1311/6020B	
Nickel	ND	0.100	0.200	mg/L	10	09/28/22 12:29	1311/6020B	
Vanadium	ND	0.100	0.200	mg/L	10	09/28/22 12:29	1311/6020B	
Zinc	0.437	0.250	0.500	mg/L	10	09/28/22 12:29	1311/6020B	J

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **Landfill**

Project Manager: **Josh Bale**

Report ID:

A2I0312 - 04 14 23 1513

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
IDW-20220907 (A2I0312-01)				Matrix: Sediment		Batch: 22I0344		
% Solids	84.7	1.00	1.00	%	1	09/14/22 05:20	EPA 8000D	

Apex Laboratories

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **Landfill**

Project Manager: **Josh Bale**

Report ID:

A2I0312 - 04 14 23 1513

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
IDW-20220907 (A2I0312-01)				Matrix: Sediment		Batch: 22I0824		
TCLP Extraction	PREP			N/A	1	09/26/22 17:33	EPA 1311	

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**Project Number: **Landfill**Project Manager: **Josh Bale****Report ID:****A2I0312 - 04 14 23 1513****QUALITY CONTROL (QC) SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22I0453 - EPA 3051A						Sediment						
Blank (22I0453-BLK1)				Prepared: 09/15/22 12:53 Analyzed: 09/16/22 00:08								
EPA 6020B												
Antimony	ND	0.250	0.500	mg/kg wet	5	---	---	---	---	---	---	
Arsenic	ND	0.250	0.500	mg/kg wet	5	---	---	---	---	---	---	
Barium	ND	0.250	0.500	mg/kg wet	5	---	---	---	---	---	---	
Beryllium	ND	0.0500	0.100	mg/kg wet	5	---	---	---	---	---	---	
Cadmium	ND	0.0500	0.100	mg/kg wet	5	---	---	---	---	---	---	
Chromium	ND	0.250	0.500	mg/kg wet	5	---	---	---	---	---	---	
Cobalt	ND	0.250	0.500	mg/kg wet	5	---	---	---	---	---	---	
Copper	ND	0.500	1.00	mg/kg wet	5	---	---	---	---	---	---	
Lead	ND	0.0500	0.100	mg/kg wet	5	---	---	---	---	---	---	
Mercury	ND	0.0200	0.0400	mg/kg wet	5	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	mg/kg wet	5	---	---	---	---	---	---	
Selenium	ND	0.250	0.500	mg/kg wet	5	---	---	---	---	---	---	
Silver	ND	0.0500	0.100	mg/kg wet	5	---	---	---	---	---	---	
Thallium	ND	0.250	0.500	mg/kg wet	5	---	---	---	---	---	---	
Vanadium	ND	0.500	1.00	mg/kg wet	5	---	---	---	---	---	---	
Zinc	ND	1.00	2.00	mg/kg wet	5	---	---	---	---	---	---	
LCS (22I0453-BS1)				Prepared: 09/15/22 12:53 Analyzed: 09/16/22 00:13								
EPA 6020B												
Antimony	14.0	0.250	0.500	mg/kg wet	5	12.5	---	112	80-120%	---	---	
Arsenic	25.4	0.250	0.500	mg/kg wet	5	25.0	---	101	80-120%	---	---	
Barium	25.7	0.250	0.500	mg/kg wet	5	25.0	---	103	80-120%	---	---	
Beryllium	13.3	0.0500	0.100	mg/kg wet	5	12.5	---	106	80-120%	---	---	
Cadmium	25.0	0.0500	0.100	mg/kg wet	5	25.0	---	100	80-120%	---	---	
Chromium	24.4	0.250	0.500	mg/kg wet	5	25.0	---	97	80-120%	---	---	
Cobalt	24.7	0.250	0.500	mg/kg wet	5	25.0	---	99	80-120%	---	---	
Copper	25.4	0.500	1.00	mg/kg wet	5	25.0	---	102	80-120%	---	---	
Lead	25.6	0.0500	0.100	mg/kg wet	5	25.0	---	103	80-120%	---	---	
Mercury	0.499	0.0200	0.0400	mg/kg wet	5	0.500	---	100	80-120%	---	---	
Nickel	24.8	0.500	1.00	mg/kg wet	5	25.0	---	99	80-120%	---	---	
Selenium	12.3	0.250	0.500	mg/kg wet	5	12.5	---	98	80-120%	---	---	
Silver	13.8	0.0500	0.100	mg/kg wet	5	12.5	---	110	80-120%	---	---	
Thallium	12.8	0.250	0.500	mg/kg wet	5	12.5	---	102	80-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-EatonvilleProject Number: **Landfill**Project Manager: **Josh Bale**Report ID:**A2I0312 - 04 14 23 1513**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22I0453 - EPA 3051A												
Sediment												
LCS (22I0453-BS1)												
Prepared: 09/15/22 12:53 Analyzed: 09/16/22 00:13												
Vanadium	25.0	0.500	1.00	mg/kg wet	5	25.0	---	100	80-120%	---	---	
Zinc	25.0	1.00	2.00	mg/kg wet	5	25.0	---	100	80-120%	---	---	
Duplicate (22I0453-DUP1)												
Prepared: 09/15/22 12:53 Analyzed: 09/16/22 00:22												
<u>QC Source Sample: IDW-20220907 (A2I0312-01)</u>												
<u>EPA 6020B</u>												
Antimony	ND	0.302	0.605	mg/kg dry	5	---	ND	---	---	---	20%	
Arsenic	3.63	0.302	0.605	mg/kg dry	5	---	3.50	---	---	4	20%	
Barium	82.3	0.302	0.605	mg/kg dry	5	---	91.5	---	---	11	20%	
Beryllium	0.279	0.0605	0.121	mg/kg dry	5	---	0.329	---	---	16	20%	
Cadmium	0.133	0.0605	0.121	mg/kg dry	5	---	0.120	---	---	10	20%	
Chromium	36.1	0.302	0.605	mg/kg dry	5	---	47.3	---	---	27	20%	Q-04
Cobalt	8.42	0.302	0.605	mg/kg dry	5	---	9.39	---	---	11	20%	
Copper	21.3	0.605	1.21	mg/kg dry	5	---	22.5	---	---	6	20%	
Lead	5.08	0.0605	0.121	mg/kg dry	5	---	4.58	---	---	10	20%	
Mercury	0.0351	0.0242	0.0484	mg/kg dry	5	---	0.0393	---	---	11	20%	J
Nickel	36.5	0.605	1.21	mg/kg dry	5	---	39.3	---	---	7	20%	
Selenium	ND	0.302	0.605	mg/kg dry	5	---	ND	---	---	---	20%	
Silver	ND	0.0605	0.121	mg/kg dry	5	---	ND	---	---	---	20%	
Thallium	ND	0.302	0.605	mg/kg dry	5	---	ND	---	---	---	20%	
Vanadium	54.0	0.605	1.21	mg/kg dry	5	---	59.0	---	---	9	20%	
Zinc	91.5	1.21	2.42	mg/kg dry	5	---	70.2	---	---	26	20%	Q-04
Matrix Spike (22I0453-MS1)												
Prepared: 09/15/22 12:53 Analyzed: 09/16/22 00:27												
<u>QC Source Sample: IDW-20220907 (A2I0312-01)</u>												
<u>EPA 6020B</u>												
Antimony	16.0	0.307	0.614	mg/kg dry	5	15.3	ND	104	75-125%	---	---	
Arsenic	34.3	0.307	0.614	mg/kg dry	5	30.7	3.50	100	75-125%	---	---	
Barium	113	0.307	0.614	mg/kg dry	5	30.7	91.5	71	75-125%	---	---	Q-04
Beryllium	16.4	0.0614	0.123	mg/kg dry	5	15.3	0.329	105	75-125%	---	---	
Cadmium	30.8	0.0614	0.123	mg/kg dry	5	30.7	0.120	100	75-125%	---	---	
Chromium	67.7	0.307	0.614	mg/kg dry	5	30.7	47.3	67	75-125%	---	---	Q-04
Cobalt	38.3	0.307	0.614	mg/kg dry	5	30.7	9.39	94	75-125%	---	---	
Copper	48.6	0.614	1.23	mg/kg dry	5	30.7	22.5	85	75-125%	---	---	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **Landfill**

Project Manager: **Josh Bale**

Report ID:

A2I0312 - 04 14 23 1513

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22I0453 - EPA 3051A						Sediment						
Matrix Spike (22I0453-MS1)			Prepared: 09/15/22 12:53		Analyzed: 09/16/22 00:27							
QC Source Sample: IDW-20220907 (A2I0312-01)												
Lead	33.8	0.0614	0.123	mg/kg dry	5	30.7	4.58	95	75-125%	---	---	
Mercury	0.625	0.0245	0.0491	mg/kg dry	5	0.614	0.0393	95	75-125%	---	---	
Nickel	74.3	0.614	1.23	mg/kg dry	5	30.7	39.3	114	75-125%	---	---	
Selenium	15.3	0.307	0.614	mg/kg dry	5	15.3	ND	100	75-125%	---	---	
Silver	16.4	0.0614	0.123	mg/kg dry	5	15.3	ND	107	75-125%	---	---	
Thallium	14.8	0.307	0.614	mg/kg dry	5	15.3	ND	96	75-125%	---	---	
Vanadium	81.8	0.614	1.23	mg/kg dry	5	30.7	59.0	74	75-125%	---	---	Q-04
Zinc	114	1.23	2.45	mg/kg dry	5	30.7	70.2	144	75-125%	---	---	Q-04

Apex Laboratories

Philip Nerenberg

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503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Weyerhaeuser-Eatonville**Project Number: **Landfill**Project Manager: **Josh Bale****Report ID:****A2I0312 - 04 14 23 1513****QUALITY CONTROL (QC) SAMPLE RESULTS****TCLP Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22I0882 - EPA 1311/3015A						Soil						
Blank (22I0882-BLK1)			Prepared: 09/27/22 14:19 Analyzed: 09/28/22 12:19									
1311/6020B												
Arsenic	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLP
Barium	ND	2.50	5.00	mg/L	10	---	---	---	---	---	---	TCLP
Beryllium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLP
Chromium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLP
Cobalt	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLP
Copper	ND	0.100	0.200	mg/L	10	---	---	---	---	---	---	TCLP
Lead	ND	0.0250	0.0500	mg/L	10	---	---	---	---	---	---	TCLP
Nickel	ND	0.100	0.200	mg/L	10	---	---	---	---	---	---	TCLP
Vanadium	ND	0.100	0.200	mg/L	10	---	---	---	---	---	---	TCLP
Zinc	ND	0.250	0.500	mg/L	10	---	---	---	---	---	---	TCLP

LCS (22I0882-BS1)

Prepared: 09/27/22 14:19 Analyzed: 09/28/22 12:24

1311/6020B												
Arsenic	5.03	0.0500	0.100	mg/L	10	5.00	---	101	80-120%	---	---	TCLP
Barium	9.99	2.50	5.00	mg/L	10	10.0	---	100	80-120%	---	---	TCLP
Beryllium	0.998	0.0500	0.100	mg/L	10	1.00	---	100	80-120%	---	---	TCLP
Chromium	4.84	0.0500	0.100	mg/L	10	5.00	---	97	80-120%	---	---	TCLP
Cobalt	2.46	0.0500	0.100	mg/L	10	2.50	---	98	80-120%	---	---	TCLP
Copper	2.59	0.100	0.200	mg/L	10	2.50	---	104	80-120%	---	---	TCLP
Lead	4.98	0.0250	0.0500	mg/L	10	5.00	---	100	80-120%	---	---	TCLP
Nickel	2.48	0.100	0.200	mg/L	10	2.50	---	99	80-120%	---	---	TCLP
Vanadium	2.36	0.100	0.200	mg/L	10	2.50	---	94	80-120%	---	---	TCLP
Zinc	5.11	0.250	0.500	mg/L	10	5.00	---	102	80-120%	---	---	TCLP

Matrix Spike (22I0882-MS1)

Prepared: 09/27/22 14:19 Analyzed: 09/28/22 12:34

QC Source Sample: IDW-20220907 (A2I0312-01)

1311/6020B												
Arsenic	4.99	0.0500	0.100	mg/L	10	5.00	ND	100	50-150%	---	---	
Barium	10.3	2.50	5.00	mg/L	10	10.0	ND	103	50-150%	---	---	
Beryllium	0.981	0.0500	0.100	mg/L	10	1.00	ND	98	50-150%	---	---	
Chromium	4.78	0.0500	0.100	mg/L	10	5.00	ND	96	50-150%	---	---	
Cobalt	2.47	0.0500	0.100	mg/L	10	2.50	ND	99	50-150%	---	---	
Copper	2.63	0.100	0.200	mg/L	10	2.50	ND	105	50-150%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**Project Number: **Landfill**Project Manager: **Josh Bale****Report ID:****A2I0312 - 04 14 23 1513****QUALITY CONTROL (QC) SAMPLE RESULTS****TCLP Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22I0882 - EPA 1311/3015A						Soil						
Matrix Spike (22I0882-MS1)				Prepared: 09/27/22 14:19 Analyzed: 09/28/22 12:34								
QC Source Sample: IDW-20220907 (A2I0312-01)												
Lead	4.93	0.0250	0.0500	mg/L	10	5.00	ND	99	50-150%	---	---	
Nickel	2.52	0.100	0.200	mg/L	10	2.50	ND	101	50-150%	---	---	
Vanadium	2.34	0.100	0.200	mg/L	10	2.50	ND	94	50-150%	---	---	
Zinc	5.48	0.250	0.500	mg/L	10	5.00	0.437	101	50-150%	---	---	
Matrix Spike (22I0882-MS2)				Prepared: 09/27/22 14:19 Analyzed: 09/28/22 12:45								
QC Source Sample: Non-SDG (A2I0747-01)												
1311/6020B												
Arsenic	5.03	0.0500	0.100	mg/L	10	5.00	ND	101	50-150%	---	---	
Barium	10.4	2.50	5.00	mg/L	10	10.0	ND	104	50-150%	---	---	
Beryllium	0.994	0.0500	0.100	mg/L	10	1.00	ND	99	50-150%	---	---	
Chromium	4.85	0.0500	0.100	mg/L	10	5.00	ND	97	50-150%	---	---	
Cobalt	2.47	0.0500	0.100	mg/L	10	2.50	ND	99	50-150%	---	---	
Copper	2.62	0.100	0.200	mg/L	10	2.50	ND	105	50-150%	---	---	
Lead	7.09	0.0250	0.0500	mg/L	10	5.00	2.04	101	50-150%	---	---	
Nickel	2.48	0.100	0.200	mg/L	10	2.50	ND	99	50-150%	---	---	
Vanadium	2.36	0.100	0.200	mg/L	10	2.50	ND	94	50-150%	---	---	
Zinc	5.96	0.250	0.500	mg/L	10	5.00	0.893	101	50-150%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Weyerhaeuser-Eatonville**Project Number: **Landfill**Project Manager: **Josh Bale****Report ID:****A2I0312 - 04 14 23 1513****QUALITY CONTROL (QC) SAMPLE RESULTS****Percent Dry Weight**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22I0344 - Total Solids (Dry Weight)							Soil					
Duplicate (22I0344-DUP1)			Prepared: 09/13/22 13:07 Analyzed: 09/14/22 05:20									
QC Source Sample: Non-SDG (A2I0310-01)												
% Solids	91.7	1.00	1.00	%	1	---	90.1	---	---	2	10%	
Duplicate (22I0344-DUP2)			Prepared: 09/13/22 13:07 Analyzed: 09/14/22 05:20									
QC Source Sample: Non-SDG (A2I0310-02)												
% Solids	90.1	1.00	1.00	%	1	---	87.2	---	---	3	10%	
Duplicate (22I0344-DUP3)			Prepared: 09/13/22 13:07 Analyzed: 09/14/22 05:20									
QC Source Sample: Non-SDG (A2I0310-03)												
% Solids	90.6	1.00	1.00	%	1	---	91.5	---	---	1	10%	
Duplicate (22I0344-DUP4)			Prepared: 09/13/22 15:21 Analyzed: 09/14/22 05:20									
QC Source Sample: Non-SDG (A2I0353-01)												
% Solids	89.3	1.00	1.00	%	1	---	88.5	---	---	0.9	10%	
Duplicate (22I0344-DUP5)			Prepared: 09/13/22 15:21 Analyzed: 09/14/22 05:20									
QC Source Sample: Non-SDG (A2I0353-02)												
% Solids	92.8	1.00	1.00	%	1	---	91.9	---	---	1	10%	
Duplicate (22I0344-DUP6)			Prepared: 09/13/22 19:39 Analyzed: 09/14/22 05:20									
QC Source Sample: Non-SDG (A2I0367-01)												
% Solids	79.3	1.00	1.00	%	1	---	76.5	---	---	4	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**Project Number: **Landfill**Project Manager: **Josh Bale****Report ID:****A210312 - 04 14 23 1513****SAMPLE PREPARATION INFORMATION****Total Metals by EPA 6020B (ICPMS)****Prep: EPA 3051A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 2210453							
A210312-01	Sediment	EPA 6020B	09/07/22 10:30	09/15/22 12:53	0.479g/50mL	0.5g/50mL	1.04

TCLP Metals by EPA 6020B (ICPMS)**Prep: EPA 1311/3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 2210882							
A210312-01	Sediment	1311/6020B	09/07/22 10:30	09/27/22 14:19	10mL/50mL	10mL/50mL	1.00

Percent Dry Weight**Prep: Total Solids (Dry Weight)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 2210344							
A210312-01	Sediment	EPA 8000D	09/07/22 10:30	09/13/22 13:07			NA

TCLP Extraction by EPA 1311**Prep: EPA 1311 (TCLP)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 2210824							
A210312-01	Sediment	EPA 1311	09/07/22 10:30	09/26/22 17:33	100g/2000g	100g/2000g	NA

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ANALYTICAL REPORT

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **Landfill**

Project Manager: **Josh Bale**

Report ID:

A2I0312 - 04 14 23 1513

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-39** Results for sample duplicate are significantly higher than the sample results. See duplicate results in QC section of the report.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- TCLP** This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 22i0824.

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **Landfill**

Project Manager: **Josh Bale**

Report ID:

A2I0312 - 04 14 23 1513

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **Landfill**

Project Manager: **Josh Bale**

Report ID:

A2I0312 - 04 14 23 1513

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Weyerhaeuser-Eatonville**

Project Number: **Landfill**

Project Manager: **Josh Bale**

Report ID:

A2I0312 - 04 14 23 1513

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-EatonvilleProject Number: LandfillProject Manager: Josh Bale

Report ID:

A210312 - 04 14 23 1513

CHAIN OF CUSTODY

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Lab # A210312 COC 1 of 2

Company:	Project Name:	Project Mgr:	Project #:
GSI Water Solutions	Weyerhaeuser - Eatonville Landfill	Josh Bale	171.067
Address: 55 SW Yamhill St #200, Portland OR 97204		Phone: 503-276-4188	Email: jhale@gswi.com
Sampled by: GSI			
Site Location:			
OR WA CA			
AK ID			
SAMPLE ID	LAB ID #	DATE	TIME
IDW-76220907		9/19/22	10:30
HA-04A-05-10		9/19/22	13:45
HA-04A-10-20		9/19/22	14:00
HA-05A-05-10		9/19/22	15:10
HA-05A-10-20		9/19/22	15:50
HA-06A-05-10		9/19/22	16:00
HA-06A-10-20		9/19/22	16:05
HA-07A-05-10		9/19/22	16:45
HA-07A-10-20		9/19/22	18:50
HA-08A-10-20		9/19/22	19:00
Normal Turn Around Time (TAT) = 10 Business Days			
TAT Requested (circle)			
1 Day 2 Day 3 Day 4 DAY 5 DAY Other <u>Standard</u>			
SPECIAL INSTRUCTIONS: <u>5-DAY TAT for IDW-76220907, all other samples analyzed.</u>			
RECEIVED BY: Signature: Date: 9-19-22			
PRINTED NAME: Printed Name: 1435			
COMPANY: Company: GSI Water Solutions			

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-EatonvilleProject Number: LandfillProject Manager: Josh Bale

Report ID:

A210312 - 04 14 23 1513

APEX LABS COOLER RECEIPT FORM

Client: GSI Water Solutions Element WO#: A2 I0312Project/Project #: Weyerhaeuser - Eatonville Landfill

Delivery Info:

Date/time received: 9-9-22 @ 1435 By: DSSDelivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 9-9-22 @ 1438 By: DSSChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>2.6</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>Good</u>						

Cooler out of temp? (Y/N) Possible reason why: Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 9/9/22 @ 1400 By: DSSAll samples intact? Yes ☒ No ☐ Comments: Bottle labels/COCs agree? Yes ☒ No ☐ Comments: COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒Comments: Water samples: pH checked: Yes ☐ No ☐ NA ☒ pH appropriate? Yes ☐ No ☐ NA ☒Comments:

Additional information:

Labeled by:

DSS

Witness:

JAM

Cooler Inspected by:

Client

Form Y-003 R-00 -

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Friday, April 14, 2023

Josh Bale

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

RE: A2B0895 - Eatonville - 00171.067.004

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2B0895, which was received by the laboratory on 2/23/2022 at 3:30:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1

2.4 degC

Cooler #2

3.6 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-01A-0.5-1.0_0222	A2B0895-01	Soil	02/03/22 16:30	02/23/22 15:30
HA-01B-0.5-1.0_0222	A2B0895-02	Soil	02/03/22 16:50	02/23/22 15:30
HA-01C-0.5-1.0_0222	A2B0895-03	Soil	02/04/22 15:05	02/23/22 15:30
HA-01D-0.5-1.0_0222	A2B0895-04	Soil	02/04/22 15:20	02/23/22 15:30
HA-01E-0.5-1.0_0222	A2B0895-05	Soil	02/04/22 15:40	02/23/22 15:30
HA-01A-1.0-2.0_0222	A2B0895-06	Soil	02/03/22 16:35	02/23/22 15:30
HA-01B-1.0-2.0_0222	A2B0895-07	Soil	02/03/22 16:55	02/23/22 15:30
HA-01C-1.0-2.0_0222	A2B0895-08	Soil	02/04/22 15:10	02/23/22 15:30
HA-01D-1.0-2.0_0222	A2B0895-09	Soil	02/04/22 15:25	02/23/22 15:30
HA-01E-1.0-2.0_0222	A2B0895-10	Soil	02/04/22 15:45	02/23/22 15:30
HA-02A-0.5-1.0_0222	A2B0895-11	Soil	02/03/22 16:05	02/23/22 15:30
HA-02B-0.5-1.0_0222	A2B0895-12	Soil	02/03/22 15:50	02/23/22 15:30
HA-02C-0.5-1.0_0222	A2B0895-13	Soil	02/03/22 15:15	02/23/22 15:30
HA-02D-0.5-1.0_0222	A2B0895-14	Soil	02/03/22 14:45	02/23/22 15:30
HA-02E-0.5-1.0_0222	A2B0895-15	Soil	02/03/22 14:05	02/23/22 15:30
HA-02A-1.0-2.0_0222	A2B0895-16	Soil	02/03/22 16:07	02/23/22 15:30
HA-02B-1.0-2.0_0222	A2B0895-17	Soil	02/03/22 15:52	02/23/22 15:30
HA-02C-1.0-2.0_0222	A2B0895-18	Soil	02/03/22 15:25	02/23/22 15:30
HA-02D-1.0-2.0_0222	A2B0895-19	Soil	02/03/22 14:55	02/23/22 15:30
HA-02E-1.0-2.0_0222	A2B0895-20	Soil	02/03/22 14:15	02/23/22 15:30
HA-03A-0.5-1.0_0222	A2B0895-21	Soil	02/03/22 13:15	02/23/22 15:30
HA-03B-0.5-1.0_0222	A2B0895-22	Soil	02/03/22 12:20	02/23/22 15:30
HA-03C-0.5-1.0_0222	A2B0895-23	Soil	02/01/22 17:05	02/23/22 15:30
HA-03D-0.5-1.0_0222	A2B0895-24	Soil	02/03/22 10:20	02/23/22 15:30
HA-03E-0.5-1.0_0222	A2B0895-25	Soil	02/03/22 09:30	02/23/22 15:30
HA-03A-1.0-2.0_0222	A2B0895-26	Soil	02/03/22 13:30	02/23/22 15:30
HA-03B-1.0-2.0_0222	A2B0895-27	Soil	02/03/22 12:30	02/23/22 15:30
HA-03C-1.0-2.0_0222	A2B0895-28	Soil	02/01/22 17:10	02/23/22 15:30
HA-03D-1.0-2.0_0222	A2B0895-29	Soil	02/03/22 10:30	02/23/22 15:30
HA-03E-1.0-2.0_0222	A2B0895-30	Soil	02/03/22 09:45	02/23/22 15:30
HA-04A-0.0-0.5_0222	A2B0895-31	Soil	02/01/22 13:00	02/23/22 15:30
HA-04B-0.0-0.5_0222	A2B0895-32	Soil	02/01/22 14:40	02/23/22 15:30
HA-04C-0.0-0.5_0222	A2B0895-33	Soil	02/01/22 15:10	02/23/22 15:30

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Eatonville**

Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-04D-0.0-0.5_0222	A2B0895-34	Soil	02/01/22 16:00	02/23/22 15:30
HA-04E-0.0-0.5_0222	A2B0895-35	Soil	02/01/22 16:25	02/23/22 15:30
HA-05A-0.0-0.5_0222	A2B0895-36	Soil	02/01/22 12:25	02/23/22 15:30
HA-05B-0.0-0.5_0222	A2B0895-37	Soil	02/01/22 11:30	02/23/22 15:30
HA-05C-0.0-0.5_0222	A2B0895-38	Soil	02/01/22 11:00	02/23/22 15:30
HA-05D-0.0-0.5_0222	A2B0895-39	Soil	02/01/22 10:00	02/23/22 15:30
HA-05E-0.0-0.5_0222	A2B0895-40	Soil	02/01/22 09:00	02/23/22 15:30
HA-01D-0.0-0.5_0222	A2B0895-41	Soil	02/04/22 15:15	02/23/22 15:30
HA-03C-0.0-0.5_0222	A2B0895-42	Soil	02/01/22 17:00	02/23/22 15:30
HA-02E-0.0-0.5_0222	A2B0895-43	Soil	02/03/22 14:00	02/23/22 15:30

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067.004

Project Manager: Josh Bale

Report ID:

A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01A-0.5-1.0_0222 (A2B0895-01)				Matrix: Soil				
Batch: 22C0247								
Lead	338	0.232	0.464	mg/kg dry	10	03/07/22 18:14	EPA 6020B	Q-42
Zinc	663	4.64	9.28	mg/kg dry	10	03/07/22 18:14	EPA 6020B	Q-42
HA-01B-0.5-1.0_0222 (A2B0895-02)				Matrix: Soil				
Batch: 22C0247								
Lead	155	0.465	0.930	mg/kg dry	10	03/07/22 18:30	EPA 6020B	
Zinc	2670	9.30	18.6	mg/kg dry	10	03/07/22 18:30	EPA 6020B	
HA-01C-0.5-1.0_0222 (A2B0895-03)				Matrix: Soil				
Batch: 22C0247								
Lead	111	0.320	0.639	mg/kg dry	10	03/07/22 18:35	EPA 6020B	
Zinc	3930	6.39	12.8	mg/kg dry	10	03/07/22 18:35	EPA 6020B	
HA-01D-0.5-1.0_0222 (A2B0895-04)				Matrix: Soil				
Batch: 22C0247								
Lead	11.8	0.212	0.423	mg/kg dry	10	03/07/22 18:40	EPA 6020B	
Zinc	912	4.23	8.47	mg/kg dry	10	03/07/22 18:40	EPA 6020B	
HA-01E-0.5-1.0_0222 (A2B0895-05)				Matrix: Soil				
Batch: 22C0247								
Lead	20.7	0.131	0.262	mg/kg dry	10	03/07/22 18:45	EPA 6020B	
Zinc	95.3	2.62	5.24	mg/kg dry	10	03/07/22 18:45	EPA 6020B	
HA-01A-1.0-2.0_0222 (A2B0895-06)				Matrix: Soil				
Batch: 22C0247								
Zinc	268	3.98	7.95	mg/kg dry	10	03/07/22 18:50	EPA 6020B	
HA-01B-1.0-2.0_0222 (A2B0895-07)				Matrix: Soil				
Batch: 22C0247								
Zinc	528	5.51	11.0	mg/kg dry	10	03/07/22 18:55	EPA 6020B	
HA-01C-1.0-2.0_0222 (A2B0895-08)				Matrix: Soil				
Batch: 22C0247								
Zinc	681	3.74	7.48	mg/kg dry	10	03/07/22 19:11	EPA 6020B	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****ANALYTICAL SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01D-1.0-2.0_0222 (A2B0895-09)				Matrix: Soil				
Batch: 22C0247								
Zinc	467	3.10	6.21	mg/kg dry	10	03/07/22 19:16	EPA 6020B	
HA-01E-1.0-2.0_0222 (A2B0895-10)				Matrix: Soil				
Batch: 22C0247								
Zinc	73.3	2.72	5.43	mg/kg dry	10	03/07/22 19:21	EPA 6020B	
HA-02A-0.5-1.0_0222 (A2B0895-11)				Matrix: Soil				
Batch: 22C0247								
Lead	57.5	0.384	0.767	mg/kg dry	10	03/07/22 19:26	EPA 6020B	
Zinc	90.1	7.67	15.3	mg/kg dry	10	03/07/22 19:26	EPA 6020B	
HA-02B-0.5-1.0_0222 (A2B0895-12)				Matrix: Soil				
Batch: 22C0247								
Lead	48.6	0.425	0.851	mg/kg dry	10	03/07/22 19:31	EPA 6020B	
Zinc	537	8.51	17.0	mg/kg dry	10	03/07/22 19:31	EPA 6020B	
HA-02C-0.5-1.0_0222 (A2B0895-13)				Matrix: Soil				
Batch: 22C0247								
Lead	158	0.572	1.14	mg/kg dry	10	03/07/22 19:37	EPA 6020B	
Zinc	2520	11.4	22.9	mg/kg dry	10	03/07/22 19:37	EPA 6020B	
HA-02D-0.5-1.0_0222 (A2B0895-14)				Matrix: Soil				
Batch: 22C0247								
Lead	60.1	0.868	1.74	mg/kg dry	10	03/07/22 19:42	EPA 6020B	
Zinc	5420	17.4	34.7	mg/kg dry	10	03/07/22 19:42	EPA 6020B	
HA-02E-0.5-1.0_0222 (A2B0895-15)				Matrix: Soil				
Batch: 22C0247								
Lead	15.2	0.466	0.931	mg/kg dry	10	03/07/22 19:47	EPA 6020B	
Zinc	4290	9.31	18.6	mg/kg dry	10	03/07/22 19:47	EPA 6020B	
HA-02A-1.0-2.0_0222 (A2B0895-16)				Matrix: Soil				
Batch: 22C0247								
Zinc	47.6	6.10	12.2	mg/kg dry	10	03/07/22 19:52	EPA 6020B	

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067.004

Project Manager: Josh Bale

Report ID:

A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02B-1.0-2.0_0222 (A2B0895-17)				Matrix: Soil				
Batch: 22C0247								
Zinc	286	4.68	9.36	mg/kg dry	10	03/07/22 19:57	EPA 6020B	
HA-02C-1.0-2.0_0222 (A2B0895-18)				Matrix: Soil				
Batch: 22C0247								
Zinc	142	2.86	5.73	mg/kg dry	10	03/07/22 20:13	EPA 6020B	
HA-02D-1.0-2.0_0222 (A2B0895-19)				Matrix: Soil				
Batch: 22C0247								
Zinc	613	8.61	17.2	mg/kg dry	10	03/07/22 20:18	EPA 6020B	
HA-02E-1.0-2.0_0222 (A2B0895-20)				Matrix: Soil				
Batch: 22C0247								
Zinc	418	5.94	11.9	mg/kg dry	10	03/07/22 20:23	EPA 6020B	
HA-03A-0.5-1.0_0222 (A2B0895-21)				Matrix: Soil				
Batch: 22C0260								
Lead	273	0.212	0.424	mg/kg dry	10	03/07/22 20:43	EPA 6020B	Q-42
Zinc	325	4.24	8.49	mg/kg dry	10	03/07/22 20:43	EPA 6020B	
HA-03B-0.5-1.0_0222 (A2B0895-22)				Matrix: Soil				
Batch: 22C0260								
Lead	35.2	0.248	0.497	mg/kg dry	10	03/07/22 20:59	EPA 6020B	
Zinc	76.8	4.97	9.93	mg/kg dry	10	03/07/22 20:59	EPA 6020B	
HA-03C-0.5-1.0_0222 (A2B0895-23)				Matrix: Soil				
Batch: 22C0260								
Lead	5.20	0.256	0.513	mg/kg dry	10	03/07/22 21:14	EPA 6020B	
Zinc	36.9	5.13	10.3	mg/kg dry	10	03/07/22 21:14	EPA 6020B	
HA-03D-0.5-1.0_0222 (A2B0895-24)				Matrix: Soil				
Batch: 22C0260								
Lead	40.4	0.683	1.37	mg/kg dry	10	03/07/22 21:19	EPA 6020B	
Zinc	3070	13.7	27.3	mg/kg dry	10	03/07/22 21:19	EPA 6020B	
HA-03E-0.5-1.0_0222 (A2B0895-25)				Matrix: Soil				

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**

Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03E-0.5-1.0_0222 (A2B0895-25) Matrix: Soil								
Batch: 22C0260								
Lead	16.7	0.678	1.36	mg/kg dry	10	03/07/22 21:25	EPA 6020B	
Zinc	1560	13.6	27.1	mg/kg dry	10	03/07/22 21:25	EPA 6020B	
HA-03A-1.0-2.0_0222 (A2B0895-26) Matrix: Soil								
Batch: 22C0260								
Zinc	58.0	3.48	6.95	mg/kg dry	10	03/07/22 21:30	EPA 6020B	
HA-03B-1.0-2.0_0222 (A2B0895-27) Matrix: Soil								
Batch: 22C0260								
Zinc	20.3	2.87	5.74	mg/kg dry	10	03/07/22 21:35	EPA 6020B	
HA-03C-1.0-2.0_0222 (A2B0895-28) Matrix: Soil								
Batch: 22C0295								
Zinc	21.3	3.15	6.31	mg/kg dry	10	03/09/22 22:59	EPA 6020B	
HA-03D-1.0-2.0_0222 (A2B0895-29) Matrix: Soil								
Batch: 22C0260								
Zinc	593	6.66	13.3	mg/kg dry	10	03/07/22 21:40	EPA 6020B	
HA-03E-1.0-2.0_0222 (A2B0895-30) Matrix: Soil								
Batch: 22C0260								
Zinc	1190	11.6	23.2	mg/kg dry	10	03/07/22 21:45	EPA 6020B	
HA-04A-0.0-0.5_0222 (A2B0895-31) Matrix: Soil								
Batch: 22C0260								
Lead	94.0	0.597	1.19	mg/kg dry	10	03/07/22 21:50	EPA 6020B	
Zinc	200	11.9	23.9	mg/kg dry	10	03/07/22 21:50	EPA 6020B	
HA-04B-0.0-0.5_0222 (A2B0895-32) Matrix: Soil								
Batch: 22C0260								
Lead	199	0.381	0.763	mg/kg dry	10	03/07/22 21:55	EPA 6020B	
Zinc	26.4	7.63	15.3	mg/kg dry	10	03/07/22 21:55	EPA 6020B	
HA-04C-0.0-0.5_0222 (A2B0895-33) Matrix: Soil								
Batch: 22C0260								

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067.004**Project Manager: **Josh Bale**Report ID:**A2B0895 - 04 14 23 1532**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-04C-0.0-0.5_0222 (A2B0895-33)				Matrix: Soil				
Lead	169	0.553	1.11	mg/kg dry	10	03/07/22 22:00	EPA 6020B	
Zinc	204	11.1	22.1	mg/kg dry	10	03/07/22 22:00	EPA 6020B	
HA-04D-0.0-0.5_0222 (A2B0895-34)				Matrix: Soil				
Batch: 22C0260								
Lead	109	0.745	1.49	mg/kg dry	10	03/07/22 22:16	EPA 6020B	
Zinc	185	14.9	29.8	mg/kg dry	10	03/07/22 22:16	EPA 6020B	
HA-04E-0.0-0.5_0222 (A2B0895-35)				Matrix: Soil				
Batch: 22C0260								
Lead	52.2	0.734	1.47	mg/kg dry	10	03/07/22 22:21	EPA 6020B	
Zinc	1400	14.7	29.4	mg/kg dry	10	03/07/22 22:21	EPA 6020B	
HA-05A-0.0-0.5_0222 (A2B0895-36)				Matrix: Soil				
Batch: 22C0260								
Lead	373	0.611	1.22	mg/kg dry	10	03/07/22 22:26	EPA 6020B	
Zinc	59.4	12.2	24.4	mg/kg dry	10	03/07/22 22:26	EPA 6020B	
HA-05B-0.0-0.5_0222 (A2B0895-37)				Matrix: Soil				
Batch: 22C0260								
Lead	120	0.343	0.685	mg/kg dry	10	03/07/22 22:31	EPA 6020B	
Zinc	43.9	6.85	13.7	mg/kg dry	10	03/07/22 22:31	EPA 6020B	
HA-05C-0.0-0.5_0222 (A2B0895-38)				Matrix: Soil				
Batch: 22C0260								
Lead	179	0.688	1.38	mg/kg dry	10	03/07/22 22:37	EPA 6020B	
Zinc	78.7	13.8	27.5	mg/kg dry	10	03/07/22 22:37	EPA 6020B	
HA-05D-0.0-0.5_0222 (A2B0895-39)				Matrix: Soil				
Batch: 22C0260								
Lead	55.2	0.630	1.26	mg/kg dry	10	03/07/22 22:42	EPA 6020B	
Zinc	723	12.6	25.2	mg/kg dry	10	03/07/22 22:42	EPA 6020B	
HA-05E-0.0-0.5_0222 (A2B0895-40)				Matrix: Soil				
Batch: 22C0260								
Lead	87.7	0.191	0.382	mg/kg dry	10	03/07/22 22:47	EPA 6020B	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**

Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05E-0.0-0.5_0222 (A2B0895-40)				Matrix: Soil				
Zinc	10.1	3.82	7.64	mg/kg dry	10	03/07/22 22:47	EPA 6020B	
HA-01D-0.0-0.5_0222 (A2B0895-41)				Matrix: Soil				
Batch: 22C0295								
Lead	325	0.367	0.735	mg/kg dry	10	03/09/22 23:04	EPA 6020B	
HA-01D-0.0-0.5_0222 (A2B0895-41RE1)				Matrix: Soil				
Batch: 22C0295								
Zinc	11800	73.5	147	mg/kg dry	100	03/10/22 16:56	EPA 6020B	
HA-03C-0.0-0.5_0222 (A2B0895-42)				Matrix: Soil				
Batch: 22C0295								
Lead	236	0.645	1.29	mg/kg dry	10	03/09/22 23:09	EPA 6020B	
HA-02E-0.0-0.5_0222 (A2B0895-43)				Matrix: Soil				
Batch: 22C0295								
Zinc	4170	8.49	17.0	mg/kg dry	10	03/09/22 23:14	EPA 6020B	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****ANALYTICAL SAMPLE RESULTS****TCLP Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01D-0.0-0.5_0222 (A2B0895-41)				Matrix: Soil				
Batch: 22C0556								
Lead	0.0333	0.0250	0.0500	mg/L	10	03/14/22 18:20	1311/6020B	J
Zinc	27.8	0.250	0.500	mg/L	10	03/14/22 18:20	1311/6020B	
HA-03C-0.0-0.5_0222 (A2B0895-42)				Matrix: Soil				
Batch: 22C0556								
Lead	ND	0.0250	0.0500	mg/L	10	03/14/22 18:30	1311/6020B	
HA-02E-0.0-0.5_0222 (A2B0895-43)				Matrix: Soil				
Batch: 22C0556								
Zinc	6.99	0.250	0.500	mg/L	10	03/14/22 18:34	1311/6020B	

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: EatonvilleProject Number: **00171.067.004**Project Manager: **Josh Bale**Report ID:**A2B0895 - 04 14 23 1532**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01A-0.5-1.0_0222 (A2B0895-01)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	43.7	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01B-0.5-1.0_0222 (A2B0895-02)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	23.2	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01C-0.5-1.0_0222 (A2B0895-03)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	30.1	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01D-0.5-1.0_0222 (A2B0895-04)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	46.7	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01E-0.5-1.0_0222 (A2B0895-05)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	77.1	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01A-1.0-2.0_0222 (A2B0895-06)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	55.9	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01B-1.0-2.0_0222 (A2B0895-07)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	37.3	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01C-1.0-2.0_0222 (A2B0895-08)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	53.5	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01D-1.0-2.0_0222 (A2B0895-09)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	64.8	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01E-1.0-2.0_0222 (A2B0895-10)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	79.0	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02A-0.5-1.0_0222 (A2B0895-11)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	26.7	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02B-0.5-1.0_0222 (A2B0895-12)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	25.7	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02C-0.5-1.0_0222 (A2B0895-13)				Matrix: Soil		Batch: 22C0027		H-01

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Portland, OR 97209Project: Eatonville

Project Number: 00171.067.004

Project Manager: Josh Bale

Report ID:

A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02C-0.5-1.0_0222 (A2B0895-13)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	17.7	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02D-0.5-1.0_0222 (A2B0895-14)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	12.3	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02E-0.5-1.0_0222 (A2B0895-15)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	22.2	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02A-1.0-2.0_0222 (A2B0895-16)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	32.7	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02B-1.0-2.0_0222 (A2B0895-17)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	43.3	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02C-1.0-2.0_0222 (A2B0895-18)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	72.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02D-1.0-2.0_0222 (A2B0895-19)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	24.5	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02E-1.0-2.0_0222 (A2B0895-20)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	33.3	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03A-0.5-1.0_0222 (A2B0895-21)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	49.1	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03B-0.5-1.0_0222 (A2B0895-22)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	41.2	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03C-0.5-1.0_0222 (A2B0895-23)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	39.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03D-0.5-1.0_0222 (A2B0895-24)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	14.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03E-0.5-1.0_0222 (A2B0895-25)				Matrix: Soil		Batch: 22B0997		H-01

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ANALYTICAL REPORT

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ORELAP ID: OR100062GSI Water Solutions55 SW Yamhill St, Ste 300
Portland, OR 97209Project: EatonvilleProject Number: **00171.067.004**Project Manager: **Josh Bale**Report ID:**A2B0895 - 04 14 23 1532**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03E-0.5-1.0_0222 (A2B0895-25)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	15.1	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03A-1.0-2.0_0222 (A2B0895-26)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	58.5	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03B-1.0-2.0_0222 (A2B0895-27)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	68.1	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03C-1.0-2.0_0222 (A2B0895-28)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	62.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03D-1.0-2.0_0222 (A2B0895-29)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	30.3	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03E-1.0-2.0_0222 (A2B0895-30)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	18.0	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-04A-0.0-0.5_0222 (A2B0895-31)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	18.0	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-04B-0.0-0.5_0222 (A2B0895-32)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	26.4	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-04C-0.0-0.5_0222 (A2B0895-33)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	19.7	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-04D-0.0-0.5_0222 (A2B0895-34)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	13.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-04E-0.0-0.5_0222 (A2B0895-35)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	13.2	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-05A-0.0-0.5_0222 (A2B0895-36)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	17.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-05B-0.0-0.5_0222 (A2B0895-37)				Matrix: Soil		Batch: 22B0997		H-01

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Eatonville**

Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05B-0.0-0.5_0222 (A2B0895-37)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	31.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-05C-0.0-0.5_0222 (A2B0895-38)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	15.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-05D-0.0-0.5_0222 (A2B0895-39)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	15.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-05E-0.0-0.5_0222 (A2B0895-40)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	51.6	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-01D-0.0-0.5_0222 (A2B0895-41)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	28.3	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03C-0.0-0.5_0222 (A2B0895-42)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	16.1	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02E-0.0-0.5_0222 (A2B0895-43)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	25.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	

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Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

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ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01D-0.0-0.5_0222 (A2B0895-41)				Matrix: Soil		Batch: 22C0423		
TCLP Extraction	PREP			N/A	1	03/10/22 15:40	EPA 1311	A-01, H-10
HA-03C-0.0-0.5_0222 (A2B0895-42)				Matrix: Soil		Batch: 22C0423		
TCLP Extraction	PREP			N/A	1	03/10/22 15:40	EPA 1311	A-01, H-10
HA-02E-0.0-0.5_0222 (A2B0895-43)				Matrix: Soil		Batch: 22C0423		
TCLP Extraction	PREP			N/A	1	03/10/22 15:40	EPA 1311	A-01, H-10

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503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****QUALITY CONTROL (QC) SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0247 - EPA 3051A						Soil						
Blank (22C0247-BLK1)			Prepared: 03/07/22 09:42		Analyzed: 03/07/22 17:54							
EPA 6020B												
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	
LCS (22C0247-BS1)			Prepared: 03/07/22 09:42		Analyzed: 03/07/22 18:09							
EPA 6020B												
Lead	49.5	0.100	0.200	mg/kg wet	10	50.0	---	99	80-120%	---	---	
Zinc	51.6	2.00	4.00	mg/kg wet	10	50.0	---	103	80-120%	---	---	
Duplicate (22C0247-DUP1)			Prepared: 03/07/22 09:42		Analyzed: 03/07/22 18:20							
QC Source Sample: HA-01A-0.5-1.0_0222 (A2B0895-01)												
EPA 6020B												
Lead	314	0.240	0.479	mg/kg dry	10	---	338	---	---	7	20%	
Zinc	497	4.79	9.59	mg/kg dry	10	---	663	---	---	29	20%	Q-04
Matrix Spike (22C0247-MS1)			Prepared: 03/07/22 09:42		Analyzed: 03/07/22 18:25							
QC Source Sample: HA-01A-0.5-1.0_0222 (A2B0895-01)												
EPA 6020B												
Lead	405	0.243	0.486	mg/kg dry	10	122	338	55	75-125%	---	---	Q-04
Zinc	575	4.86	9.73	mg/kg dry	10	122	663	-73	75-125%	---	---	Q-04
Batch 22C0260 - EPA 3051A						Soil						
Blank (22C0260-BLK1)			Prepared: 03/07/22 11:48		Analyzed: 03/07/22 20:33							
EPA 6020B												
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	
LCS (22C0260-BS1)			Prepared: 03/07/22 11:48		Analyzed: 03/07/22 20:38							
EPA 6020B												
Lead	45.2	0.100	0.200	mg/kg wet	10	50.0	---	90	80-120%	---	---	
Zinc	46.3	2.00	4.00	mg/kg wet	10	50.0	---	93	80-120%	---	---	

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067.004**Project Manager: **Josh Bale**Report ID:**A2B0895 - 04 14 23 1532**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0260 - EPA 3051A						Soil						
Duplicate (22C0260-DUP1)			Prepared: 03/07/22 11:48 Analyzed: 03/07/22 20:49									
QC Source Sample: HA-03A-0.5-1.0 0222 (A2B0895-21)												
EPA 6020B												
Lead	215	0.210	0.420	mg/kg dry	10	---	273	---	---	24	20%	Q-04
Zinc	286	4.20	8.40	mg/kg dry	10	---	325	---	---	13	20%	
Matrix Spike (22C0260-MS1)			Prepared: 03/07/22 11:48 Analyzed: 03/07/22 20:54									
QC Source Sample: HA-03A-0.5-1.0 0222 (A2B0895-21)												
EPA 6020B												
Lead	333	0.219	0.437	mg/kg dry	10	109	273	55	75-125%	---	---	Q-04
Zinc	416	4.37	8.74	mg/kg dry	10	109	325	83	75-125%	---	---	

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ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****QUALITY CONTROL (QC) SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0295 - EPA 3051A						Soil						
Blank (22C0295-BLK1)			Prepared: 03/08/22 09:35 Analyzed: 03/09/22 21:57									
EPA 6020B												
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	
LCS (22C0295-BS1)			Prepared: 03/08/22 09:35 Analyzed: 03/09/22 22:01									
EPA 6020B												
Lead	46.8	0.100	0.200	mg/kg wet	10	50.0	---	94	80-120%	---	---	
Zinc	48.1	2.00	4.00	mg/kg wet	10	50.0	---	96	80-120%	---	---	
Duplicate (22C0295-DUP1)			Prepared: 03/08/22 09:35 Analyzed: 03/09/22 22:11									
QC Source Sample: Non-SDG (A2B0815-01)												
Lead	1.72	0.107	0.215	mg/kg dry	10	---	1.59	---	---	8	20%	
Zinc	20.0	2.15	4.30	mg/kg dry	10	---	18.3	---	---	9	20%	
Matrix Spike (22C0295-MS1)			Prepared: 03/08/22 09:35 Analyzed: 03/09/22 22:16									
QC Source Sample: Non-SDG (A2B0815-01)												
EPA 6020B												
Lead	54.4	0.112	0.224	mg/kg dry	10	56.1	1.59	94	75-125%	---	---	
Zinc	72.0	2.24	4.49	mg/kg dry	10	56.1	18.3	96	75-125%	---	---	

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0556 - EPA 1311/3015A						Soil						
Blank (22C0556-BLK1)			Prepared: 03/14/22 14:28 Analyzed: 03/14/22 18:01									
1311/6020B												
Lead	ND	0.0250	0.0500	mg/L	10	---	---	---	---	---	---	TCLP
Zinc	ND	0.250	0.500	mg/L	10	---	---	---	---	---	---	TCLP
LCS (22C0556-BS1)			Prepared: 03/14/22 14:28 Analyzed: 03/14/22 18:06									
1311/6020B												
Lead	4.69	0.0250	0.0500	mg/L	10	5.00	---	94	80-120%	---	---	TCLP
Zinc	4.63	0.250	0.500	mg/L	10	5.00	---	93	80-120%	---	---	TCLP
Matrix Spike (22C0556-MS1)			Prepared: 03/14/22 14:28 Analyzed: 03/14/22 18:25									
QC Source Sample: HA-01D-0.0-0.5_0222 (A2B0895-41)												
1311/6020B												
Lead	4.97	0.0250	0.0500	mg/L	10	5.00	0.0333	99	50-150%	---	---	
Zinc	32.1	0.250	0.500	mg/L	10	5.00	27.8	86	50-150%	---	---	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0997 - Total Solids (Dry Weight)							Soil					
Duplicate (22B0997-DUP1)			Prepared: 02/28/22 13:22		Analyzed: 03/01/22 10:40		H-01					
QC Source Sample: Non-SDG (A2B0731-01)												
% Solids	79.3	1.00	1.00	%	1	---	79.3	---	---	0.08	10%	
Duplicate (22B0997-DUP2)			Prepared: 02/28/22 13:22		Analyzed: 03/01/22 10:40		H-01					
QC Source Sample: Non-SDG (A2B0731-02)												
% Solids	79.1	1.00	1.00	%	1	---	79.8	---	---	0.9	10%	
Duplicate (22B0997-DUP3)			Prepared: 02/28/22 13:22		Analyzed: 03/01/22 10:40							
QC Source Sample: Non-SDG (A2B0776-03)												
% Solids	94.4	1.00	1.00	%	1	---	94.1	---	---	0.4	10%	
Duplicate (22B0997-DUP4)			Prepared: 02/28/22 13:22		Analyzed: 03/01/22 10:40							
QC Source Sample: Non-SDG (A2B0816-01)												
% Solids	78.0	1.00	1.00	%	1	---	77.5	---	---	0.6	10%	
Duplicate (22B0997-DUP5)			Prepared: 02/28/22 13:22		Analyzed: 03/01/22 10:40							
QC Source Sample: Non-SDG (A2B0816-02)												
% Solids	78.7	1.00	1.00	%	1	---	78.5	---	---	0.2	10%	
Duplicate (22B0997-DUP6)			Prepared: 02/28/22 13:22		Analyzed: 03/01/22 10:40							
QC Source Sample: Non-SDG (A2B0816-03)												
% Solids	78.5	1.00	1.00	%	1	---	76.8	---	---	2	10%	
Duplicate (22B0997-DUP7)			Prepared: 02/28/22 13:22		Analyzed: 03/01/22 10:40							
QC Source Sample: Non-SDG (A2B0819-01)												
% Solids	79.5	1.00	1.00	%	1	---	79.9	---	---	0.5	10%	
Duplicate (22B0997-DUP8)			Prepared: 02/28/22 19:38		Analyzed: 03/01/22 10:40							
QC Source Sample: Non-SDG (A2B0956-01)												
% Solids	78.9	1.00	1.00	%	1	---	79.3	---	---	0.5	10%	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Eatonville**

Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0997 - Total Solids (Dry Weight)							Soil					
Duplicate (22B0997-DUP9)			Prepared: 02/28/22 19:38 Analyzed: 03/01/22 10:40									
QC Source Sample: Non-SDG (A2B0968-02)												
% Solids	91.5	1.00	1.00	%	1	---	91.2	---	---	0.4	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GSI Water Solutions**55 SW Yamhill St, Ste 300
Portland, OR 97209Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****QUALITY CONTROL (QC) SAMPLE RESULTS****Percent Dry Weight**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0027 - Total Solids (Dry Weight)							Soil					
Duplicate (22C0027-DUP1)			Prepared: 03/01/22 11:32 Analyzed: 03/02/22 10:44									
<u>QC Source Sample: Non-SDG (A2B0784-01)</u>												
% Solids	26.6	1.00	1.00	%	1	---	26.4	---	---	0.6	10%	
Duplicate (22C0027-DUP2)			Prepared: 03/01/22 11:32 Analyzed: 03/02/22 10:44									
<u>QC Source Sample: Non-SDG (A2B0864-01)</u>												
% Solids	89.1	1.00	1.00	%	1	---	87.9	---	---	1	10%	
Duplicate (22C0027-DUP3)			Prepared: 03/01/22 11:32 Analyzed: 03/02/22 10:44									
<u>QC Source Sample: Non-SDG (A2B0864-02)</u>												
% Solids	83.3	1.00	1.00	%	1	---	83.1	---	---	0.2	10%	
Duplicate (22C0027-DUP4)			Prepared: 03/01/22 11:32 Analyzed: 03/02/22 10:44									
<u>QC Source Sample: Non-SDG (A2B0864-03)</u>												
% Solids	76.4	1.00	1.00	%	1	---	75.3	---	---	1	10%	
Duplicate (22C0027-DUP5)			Prepared: 03/01/22 11:32 Analyzed: 03/02/22 10:44									
<u>QC Source Sample: Non-SDG (A2B0864-05)</u>												
% Solids	67.5	1.00	1.00	%	1	---	71.9	---	---	6	10%	
Duplicate (22C0027-DUP6)			Prepared: 03/01/22 19:45 Analyzed: 03/02/22 10:44									
<u>QC Source Sample: Non-SDG (A2C0080-01)</u>												
% Solids	88.6	1.00	1.00	%	1	---	88.5	---	---	0.08	10%	
Duplicate (22C0027-DUP7)			Prepared: 03/01/22 19:45 Analyzed: 03/02/22 10:44									
<u>QC Source Sample: Non-SDG (A2C0094-01)</u>												
% Solids	73.7	1.00	1.00	%	1	---	73.7	---	---	0.007	10%	
Duplicate (22C0027-DUP8)			Prepared: 03/01/22 19:45 Analyzed: 03/02/22 10:44									
<u>QC Source Sample: Non-SDG (A2C0098-04)</u>												
% Solids	74.2	1.00	1.00	%	1	---	73.8	---	---	0.6	10%	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067.004

Project Manager: Josh Bale

Report ID:

A2B0895 - 04 14 23 1532

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
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No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****SAMPLE PREPARATION INFORMATION****Total Metals by EPA 6020B (ICPMS)**

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22C0247							
A2B0895-01	Soil	EPA 6020B	02/03/22 16:30	03/07/22 09:42	0.493g/50mL	0.5g/50mL	1.01
A2B0895-02	Soil	EPA 6020B	02/03/22 16:50	03/07/22 09:42	0.464g/50mL	0.5g/50mL	1.08
A2B0895-03	Soil	EPA 6020B	02/04/22 15:05	03/07/22 09:42	0.52g/50mL	0.5g/50mL	0.96
A2B0895-04	Soil	EPA 6020B	02/04/22 15:20	03/07/22 09:42	0.506g/50mL	0.5g/50mL	0.99
A2B0895-05	Soil	EPA 6020B	02/04/22 15:40	03/07/22 09:42	0.495g/50mL	0.5g/50mL	1.01
A2B0895-06	Soil	EPA 6020B	02/03/22 16:35	03/07/22 09:42	0.45g/50mL	0.5g/50mL	1.11
A2B0895-07	Soil	EPA 6020B	02/03/22 16:55	03/07/22 09:42	0.487g/50mL	0.5g/50mL	1.03
A2B0895-08	Soil	EPA 6020B	02/04/22 15:10	03/07/22 09:42	0.5g/50mL	0.5g/50mL	1.00
A2B0895-09	Soil	EPA 6020B	02/04/22 15:25	03/07/22 09:42	0.497g/50mL	0.5g/50mL	1.01
A2B0895-10	Soil	EPA 6020B	02/04/22 15:45	03/07/22 09:42	0.466g/50mL	0.5g/50mL	1.07
A2B0895-11	Soil	EPA 6020B	02/03/22 16:05	03/07/22 09:42	0.488g/50mL	0.5g/50mL	1.02
A2B0895-12	Soil	EPA 6020B	02/03/22 15:50	03/07/22 09:42	0.458g/50mL	0.5g/50mL	1.09
A2B0895-13	Soil	EPA 6020B	02/03/22 15:15	03/07/22 09:42	0.495g/50mL	0.5g/50mL	1.01
A2B0895-14	Soil	EPA 6020B	02/03/22 14:45	03/07/22 09:42	0.468g/50mL	0.5g/50mL	1.07
A2B0895-15	Soil	EPA 6020B	02/03/22 14:05	03/07/22 09:42	0.483g/50mL	0.5g/50mL	1.04
A2B0895-16	Soil	EPA 6020B	02/03/22 16:07	03/07/22 09:42	0.501g/50mL	0.5g/50mL	1.00
A2B0895-17	Soil	EPA 6020B	02/03/22 15:52	03/07/22 09:42	0.494g/50mL	0.5g/50mL	1.01
A2B0895-18	Soil	EPA 6020B	02/03/22 15:25	03/07/22 09:42	0.48g/50mL	0.5g/50mL	1.04
A2B0895-19	Soil	EPA 6020B	02/03/22 14:55	03/07/22 09:42	0.474g/50mL	0.5g/50mL	1.05
A2B0895-20	Soil	EPA 6020B	02/03/22 14:15	03/07/22 09:42	0.505g/50mL	0.5g/50mL	0.99
Batch: 22C0260							
A2B0895-21	Soil	EPA 6020B	02/03/22 13:15	03/07/22 11:48	0.48g/50mL	0.5g/50mL	1.04
A2B0895-22	Soil	EPA 6020B	02/03/22 12:20	03/07/22 11:48	0.489g/50mL	0.5g/50mL	1.02
A2B0895-23	Soil	EPA 6020B	02/01/22 17:05	03/07/22 11:48	0.489g/50mL	0.5g/50mL	1.02
A2B0895-24	Soil	EPA 6020B	02/03/22 10:20	03/07/22 11:48	0.49g/50mL	0.5g/50mL	1.02
A2B0895-25	Soil	EPA 6020B	02/03/22 09:30	03/07/22 11:48	0.489g/50mL	0.5g/50mL	1.02
A2B0895-26	Soil	EPA 6020B	02/03/22 13:30	03/07/22 11:48	0.492g/50mL	0.5g/50mL	1.02
A2B0895-27	Soil	EPA 6020B	02/03/22 12:30	03/07/22 11:48	0.511g/50mL	0.5g/50mL	0.98
A2B0895-29	Soil	EPA 6020B	02/03/22 10:30	03/07/22 11:48	0.496g/50mL	0.5g/50mL	1.01
A2B0895-30	Soil	EPA 6020B	02/03/22 09:45	03/07/22 11:48	0.48g/50mL	0.5g/50mL	1.04
A2B0895-31	Soil	EPA 6020B	02/01/22 13:00	03/07/22 11:48	0.464g/50mL	0.5g/50mL	1.08
A2B0895-32	Soil	EPA 6020B	02/01/22 14:40	03/07/22 11:48	0.496g/50mL	0.5g/50mL	1.01
A2B0895-33	Soil	EPA 6020B	02/01/22 15:10	03/07/22 11:48	0.459g/50mL	0.5g/50mL	1.09
A2B0895-34	Soil	EPA 6020B	02/01/22 16:00	03/07/22 11:48	0.486g/50mL	0.5g/50mL	1.03
A2B0895-35	Soil	EPA 6020B	02/01/22 16:25	03/07/22 11:48	0.517g/50mL	0.5g/50mL	0.97
A2B0895-36	Soil	EPA 6020B	02/01/22 12:25	03/07/22 11:48	0.457g/50mL	0.5g/50mL	1.09

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****SAMPLE PREPARATION INFORMATION****Total Metals by EPA 6020B (ICPMS)****Prep: EPA 3051A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0895-37	Soil	EPA 6020B	02/01/22 11:30	03/07/22 11:48	0.457g/50mL	0.5g/50mL	1.09
A2B0895-38	Soil	EPA 6020B	02/01/22 11:00	03/07/22 11:48	0.46g/50mL	0.5g/50mL	1.09
A2B0895-39	Soil	EPA 6020B	02/01/22 10:00	03/07/22 11:48	0.5g/50mL	0.5g/50mL	1.00
A2B0895-40	Soil	EPA 6020B	02/01/22 09:00	03/07/22 11:48	0.507g/50mL	0.5g/50mL	0.99

Batch: 22C0295

A2B0895-28	Soil	EPA 6020B	02/01/22 17:10	03/08/22 09:35	0.505g/50mL	0.5g/50mL	0.99
A2B0895-41	Soil	EPA 6020B	02/04/22 15:15	03/08/22 09:35	0.481g/50mL	0.5g/50mL	1.04
A2B0895-41RE1	Soil	EPA 6020B	02/04/22 15:15	03/08/22 09:35	0.481g/50mL	0.5g/50mL	1.04
A2B0895-42	Soil	EPA 6020B	02/01/22 17:00	03/08/22 09:35	0.481g/50mL	0.5g/50mL	1.04
A2B0895-43	Soil	EPA 6020B	02/03/22 14:00	03/08/22 09:35	0.456g/50mL	0.5g/50mL	1.10

TCLP Metals by EPA 6020B (ICPMS)**Prep: EPA 1311/3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0895-41	Soil	1311/6020B	02/04/22 15:15	03/14/22 14:28	10mL/50mL	10mL/50mL	1.00
A2B0895-42	Soil	1311/6020B	02/01/22 17:00	03/14/22 14:28	10mL/50mL	10mL/50mL	1.00
A2B0895-43	Soil	1311/6020B	02/03/22 14:00	03/14/22 14:28	10mL/50mL	10mL/50mL	1.00

Percent Dry Weight**Prep: Total Solids (Dry Weight)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0895-16	Soil	EPA 8000D	02/03/22 16:07	02/28/22 13:22			NA
A2B0895-17	Soil	EPA 8000D	02/03/22 15:52	02/28/22 13:22			NA
A2B0895-18	Soil	EPA 8000D	02/03/22 15:25	02/28/22 13:22			NA
A2B0895-19	Soil	EPA 8000D	02/03/22 14:55	02/28/22 13:22			NA
A2B0895-20	Soil	EPA 8000D	02/03/22 14:15	02/28/22 13:22			NA
A2B0895-21	Soil	EPA 8000D	02/03/22 13:15	02/28/22 13:22			NA
A2B0895-22	Soil	EPA 8000D	02/03/22 12:20	02/28/22 13:22			NA
A2B0895-23	Soil	EPA 8000D	02/01/22 17:05	02/28/22 13:22			NA
A2B0895-24	Soil	EPA 8000D	02/03/22 10:20	02/28/22 13:22			NA
A2B0895-25	Soil	EPA 8000D	02/03/22 09:30	02/28/22 13:22			NA
A2B0895-26	Soil	EPA 8000D	02/03/22 13:30	02/28/22 13:22			NA
A2B0895-27	Soil	EPA 8000D	02/03/22 12:30	02/28/22 13:22			NA

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****SAMPLE PREPARATION INFORMATION****Percent Dry Weight****Prep: Total Solids (Dry Weight)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0895-28	Soil	EPA 8000D	02/01/22 17:10	02/28/22 13:22			NA
A2B0895-29	Soil	EPA 8000D	02/03/22 10:30	02/28/22 13:22			NA
A2B0895-30	Soil	EPA 8000D	02/03/22 09:45	02/28/22 13:22			NA
A2B0895-31	Soil	EPA 8000D	02/01/22 13:00	02/28/22 13:22			NA
A2B0895-32	Soil	EPA 8000D	02/01/22 14:40	02/28/22 13:22			NA
A2B0895-33	Soil	EPA 8000D	02/01/22 15:10	02/28/22 13:22			NA
A2B0895-34	Soil	EPA 8000D	02/01/22 16:00	02/28/22 13:22			NA
A2B0895-35	Soil	EPA 8000D	02/01/22 16:25	02/28/22 13:22			NA
A2B0895-36	Soil	EPA 8000D	02/01/22 12:25	02/28/22 13:22			NA
A2B0895-37	Soil	EPA 8000D	02/01/22 11:30	02/28/22 13:22			NA
A2B0895-38	Soil	EPA 8000D	02/01/22 11:00	02/28/22 13:22			NA
A2B0895-39	Soil	EPA 8000D	02/01/22 10:00	02/28/22 13:22			NA
A2B0895-40	Soil	EPA 8000D	02/01/22 09:00	02/28/22 13:22			NA
A2B0895-41	Soil	EPA 8000D	02/04/22 15:15	02/28/22 13:22			NA
A2B0895-42	Soil	EPA 8000D	02/01/22 17:00	02/28/22 13:22			NA
A2B0895-43	Soil	EPA 8000D	02/03/22 14:00	02/28/22 13:22			NA

Batch: 22C0027

A2B0895-01	Soil	EPA 8000D	02/03/22 16:30	03/01/22 11:32			NA
A2B0895-02	Soil	EPA 8000D	02/03/22 16:50	03/01/22 11:32			NA
A2B0895-03	Soil	EPA 8000D	02/04/22 15:05	03/01/22 11:32			NA
A2B0895-04	Soil	EPA 8000D	02/04/22 15:20	03/01/22 11:32			NA
A2B0895-05	Soil	EPA 8000D	02/04/22 15:40	03/01/22 11:32			NA
A2B0895-06	Soil	EPA 8000D	02/03/22 16:35	03/01/22 11:32			NA
A2B0895-07	Soil	EPA 8000D	02/03/22 16:55	03/01/22 11:32			NA
A2B0895-08	Soil	EPA 8000D	02/04/22 15:10	03/01/22 11:32			NA
A2B0895-09	Soil	EPA 8000D	02/04/22 15:25	03/01/22 11:32			NA
A2B0895-10	Soil	EPA 8000D	02/04/22 15:45	03/01/22 11:32			NA
A2B0895-11	Soil	EPA 8000D	02/03/22 16:05	03/01/22 11:32			NA
A2B0895-12	Soil	EPA 8000D	02/03/22 15:50	03/01/22 11:32			NA
A2B0895-13	Soil	EPA 8000D	02/03/22 15:15	03/01/22 11:32			NA
A2B0895-14	Soil	EPA 8000D	02/03/22 14:45	03/01/22 11:32			NA
A2B0895-15	Soil	EPA 8000D	02/03/22 14:05	03/01/22 11:32			NA

TCLP Extraction by EPA 1311**Prep: EPA 1311 (TCLP)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
------------	--------	--------	---------	----------	-------------------------	--------------------------	-------------------

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**

Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

SAMPLE PREPARATION INFORMATION

TCLP Extraction by EPA 1311

Prep: EPA 1311 (TCLP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22C0423							
A2B0895-41	Soil	EPA 1311	02/04/22 15:15	03/10/22 15:40	99.9g/1990g	100g/2000g	NA
A2B0895-42	Soil	EPA 1311	02/01/22 17:00	03/10/22 15:40	100.1g/1994g	100g/2000g	NA
A2B0895-43	Soil	EPA 1311	02/03/22 14:00	03/10/22 15:40	100.1g/1993g	100g/2000g	NA

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- A-01** H-10 qualifier applies to Hg only.
- H-01** Analyzed outside the recommended holding time.
- H-10** This sample was TCLP extracted (leached) outside of the recommended holding time.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- TCLP** This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 22C0423.

Apex Laboratories

Philip Nerenberg, Lab Director

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Project: **Eatonville**

Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Eatonville**

Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: **Eatonville**

Project Number: **00171.067.004**

Project Manager: **Josh Bale**

Report ID:

A2B0895 - 04 14 23 1532

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 00171.067.004Project Manager: Josh Bale

Report ID:

A2B0895 - 04 14 23 1532

Lab # A2B0895
COC 1 of 3

CHAIN OF CUSTODY

APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: GSI Water Solutions, Inc		Project Mgr: Josh Bale		Project Name: Former Eatonville Landfill		Project # 00171.067.004	
Address: 55 SW Yamhill St, Suite 300, Portland, OR 97204		Phone: 971.200.8502		Fax:		Email: info@gsiwater.com	
Sampled by: Brendon Warner							
Site Location: OR WA	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-DX
Other: _____							
ANALYSIS REQUEST							
TCLP Metals (13)							
Al, Sb, As, Ba, Be, Cd, Cr, Cu, Fe, Pb, Hg, Mn, Mo, Ni, P, Se, Ag, Tl, V, Zn							
TCLP Metals (8)							
1200-COLS							
Total Lead							
Total Zinc							
TCLP Zinc							
TCLP Lead							
8081 Chlor. Pest							
8082 PCBs							
8270 SIM PAHs							
8260 VOCs							
8260 Halo VOCs							
8260 RBDM VOCs							
BTEX							
NWTPH-GX							
NWTPH-DX							
NWTPH-HCID							
Normal Turn Around Time (TAT) = 5-10 Business Days							
TAT Requested (circle)							
24 HR 48 HR 72 HR							
4 DAY 5 DAY Other: _____							
SAMPLES ARE HELD FOR 30 DAYS							
RELINQUISHED BY:		RECEIVED BY:		RELINQUISHED BY:		RECEIVED BY:	
Signature: _____		Signature: _____		Signature: _____		Signature: _____	
Date: 2/3/22		Date: 2/3/22		Date: 2/3/22		Date: 2/3/22	
Printed Name: _____		Printed Name: _____		Printed Name: _____		Printed Name: _____	
Time: 15:30		Time: 15:30		Time: 15:30		Time: 15:30	
Company: GSI		Company: GSI		Company: GSI		Company: GSI	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 00171.067.004Project Manager: Josh Bale

Report ID:

A2B0895 - 04 14 23 1532

CHAIN OF CUSTODY

APEX LABS

COC 2 of 3
Lab # A2B0895

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: GSI Water Solutions, Inc		Project Mgr: Josh Bale		Project Name: Former Eatonville Landfill		Project # 00171.067.004																				
Address: 55 SW Yamhill St, Suite 300, Portland, OR 97204		Phone: 971.200.8502		Fax:		Email: jeb@gsi.com																				
Sampled by: Braedon Warner																										
Site Location: OR WA	ANALYSIS REQUEST																									
Other:																										
SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs	8270 SIM PAHs	8082 PCBs	8081 Chlor. Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Cr, Cu, Fe, Pb, Se, Ag, Na, Ti, V, Zn, Hg, Mg, Mn, Mo, Ni, K	TCLP Metals (8)	1200-COLS	1200-Z	Total Lead	Total Zinc			
HA-03A-0.5-1.0.0222	202022	202022	1315 Soil	1	1																					
HA-03B-0.5-1.0.0222	202022	202022	1720 Soil	1	1																					
HA-03C-0.5-1.0.0222	202022	202022	1700 Soil	1	1																					
HA-03D-0.5-1.0.0222	202022	202022	1020 Soil	1	1																					
HA-03E-0.5-1.0.0222	202022	202022	910 Soil	1	1																					
HA-03A-1.0-2.0.0222	202022	202022	1310 Soil	1	1																					
HA-03B-1.0-2.0.0222	202022	202022	1210 Soil	1	1																					
HA-03C-1.0-2.0.0222	202022	202022	1710 Soil	1	1																					
HA-03D-1.0-2.0.0222	202022	202022	1010 Soil	1	1																					
HA-03E-1.0-2.0.0222	202022	202022	940 Soil	1	1																					
HA-04A-0.0-0.5.0222	202022	202022	1300 Soil	1	1																					
HA-04B-0.0-0.5.0222	202022	202022	1440 Soil	1	1																					
HA-04C-0.0-0.5.0222	202022	202022	1510 Soil	1	1																					
HA-04D-0.0-0.5.0222	202022	202022	1600 Soil	1	1																					
HA-04E-0.0-0.5.0222	202022	202022	1610 Soil	1	1																					
HA-05A-0.0-0.5.0222	202022	202022	1210 Soil	1	1																					
HA-05B-0.0-0.5.0222	202022	202022	1110 Soil	1	1																					
HA-05C-0.0-0.5.0222	202022	202022	1100 Soil	1	1																					
HA-05D-0.0-0.5.0222	202022	202022	1000 Soil	1	1																					
HA-05E-0.0-0.5.0222	202022	202022	900 Soil	1	1																					
Normal Turn Around Time (TAT) = 5-10 Business Days								SPECIAL INSTRUCTIONS: All samples were archived in cold storage.																		
TAT Requested (circle)		24 HR	48 HR	72 HR																						
SAMPLES ARE HELD FOR 30 DAYS		4 DAY	5 DAY	Other:																						
RELINQUISHED BY:		Signature:		Date:		Signature:		Date:		Signature:		Date:		Signature:		Date:		Signature:		Date:		Signature:		Date:		
Printed Name:		2/23/22		2/23/22		Printed Name:		2/23/22		Printed Name:		2/23/22		Printed Name:		2/23/22		Printed Name:		2/23/22		Printed Name:		2/23/22		
Company:		GSI		GSI		Company:		GSI		Company:		GSI		Company:		GSI		Company:		GSI		Company:		GSI		

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 00171.067.004Project Manager: Josh Bale

Report ID:

A2B0895 - 04 14 23 1532

CHAIN OF CUSTODY

APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Lab # A2B0895 COC 3 of 3

Company: GSI Water Solutions, Inc		Project Mgr: Josh Bale		Project Name: Former Eatonville Landfill		Project # 00171.067.004	
Address: 55 SW Yamhill St, Suite 300, Portland, OR 97204		Phone: 971.200.8502		Fax:		Email: jpbale@gsiwa.com	
Sampled by: Braedon Warner							
Site Location: OR WA	ANALYSIS REQUEST						
Other:	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-DX
SAMPLE ID							
H4-010-0-0-5.0222	240202	1515	Soil	***			
H4-002-0-0-5.0222	270202	1750	Soil	***			
H4-020-0-0-5.0222	290202	1400	Soil	***			
TAT Requested (circle) 24 HR 48 HR 72 HR							
SAMPLES ARE HELD FOR 30 DAYS							
RELINQUISHED BY:		RECEIVED BY:		RELINQUISHED BY:		RECEIVED BY:	
Signature: <u>Braedon Warner</u>		Signature: <u>Braedon Warner</u>		Signature: <u>Braedon Warner</u>		Signature: <u>Braedon Warner</u>	
Date: <u>2/25/12</u>		Date: <u>2/25/12</u>		Date: <u>2/25/12</u>		Date: <u>2/25/12</u>	
Printed Name: <u>BRAEDON WARNER</u>		Printed Name: <u>Braedon Warner</u>		Printed Name: <u>Braedon Warner</u>		Printed Name: <u>Braedon Warner</u>	
Time: <u>15:30</u>		Time: <u>15:30</u>		Time: <u>15:30</u>		Time: <u>15:30</u>	
Company: <u>GSI</u>		Company: <u>GSI</u>		Company: <u>GSI</u>		Company: <u>GSI</u>	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale****Report ID:****A2B0895 - 04 14 23 1532****APEX LABS COOLER RECEIPT FORM**Client: GSI Water Solutions Element WO#: A2 B0895Project/Project #: Former Eatonville Landfill / 00171.067.004**Delivery Info:**Date/time received: 4/23/22 @ 1530 By: 80Delivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐**Cooler Inspection** Date/time inspected: 4/23/22 @ 1530 By: 80Chain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>2.4</u>	<u>3.6</u>					
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>					
Temp. blanks? (Y/N)	<u>Y</u>	<u>Y</u>					
Ice type: (Gel/Real/Other)	<u>real</u>	<u>real</u>					
Condition:	<u>good</u>	<u>good</u>					

Cooler out of temp? (Y/N) No Possible reason why: _____Green dots applied to out of temperature samples? Yes ☐ No ☒Out of temperature samples form initiated? Yes ☐ No ☒**Sample Inspection:** Date/time inspected: 4/28/22 @ 10:00 By: MRSAll samples intact? Yes ☐ No ☒ Comments: SEE FORMBottle labels/COCs agree? Yes ☒ No ☒ Comments: all samples missing 0222.COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments: _____

Water samples: pH checked: Yes ☐ No ☐ NA ☒ pH appropriate? Yes ☐ No ☐ NA ☒

Comments: _____

Additional information:Labeled by: h3Witness: 80Cooler Inspected by: MRS

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Wednesday, April 19, 2023

Genevieve Schutzius

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

RE: A1A0458 - Eatonville - Landfill WA State

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1A0458, which was received by the laboratory on 1/13/2021 at 9:17:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	0.7 degC	Cooler #2	5.6 degC
Cooler #3	0.8 degC	Cooler #4	0.2 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SE01-0121	A1A0458-01	Water	01/11/21 13:30	01/13/21 09:17
SE101-0121	A1A0458-02	Water	01/11/21 13:40	01/13/21 09:17
SE02-0121	A1A0458-03	Water	01/11/21 14:15	01/13/21 09:17
GW01-0121	A1A0458-04	Water	01/12/21 10:00	01/13/21 09:17
SW01-0121	A1A0458-05	Water	01/12/21 11:45	01/13/21 09:17
SW02-0121	A1A0458-06	Water	01/12/21 12:25	01/13/21 09:17
SW03-0121	A1A0458-07	Water	01/12/21 13:15	01/13/21 09:17
Trip Blank	A1A0458-08	Water	01/11/21 00:00	01/13/21 09:17

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

Page 2 of 104



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

ANALYTICAL CASE NARRATIVE

A1A0458

Apex Laboratories

Amended Report Revision 1:

Reporting to the Method Detection Limits (MDLs)-

This report supersedes all previous reports.

The final report has been amended to report the PBDE results to the MDL.

Lisa Domenighini

Client Services Manager

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)		Matrix: Water			Batch: 1012821			
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 15:18	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)		Matrix: Water			Batch: 1012821			
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)		Matrix: Water			Batch: 1012821			
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>01/13/21 15:18</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>01/13/21 15:18</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>104 %</i>		<i>80-120 %</i>	<i>1</i>	<i>01/13/21 15:18</i>	<i>EPA 8260D</i>	
SE101-0121 (A1A0458-02)		Matrix: Water			Batch: 1012821			
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 15:48	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE101-0121 (A1A0458-02)		Matrix: Water			Batch: 1012821			
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE101-0121 (A1A0458-02)		Matrix: Water			Batch: 1012821			
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	101 %	<i>Limits:</i>	80-120 %	1	01/13/21 15:48	EPA 8260D
<i>Toluene-d8 (Surr)</i>			100 %		80-120 %	1	01/13/21 15:48	EPA 8260D
<i>4-Bromofluorobenzene (Surr)</i>			105 %		80-120 %	1	01/13/21 15:48	EPA 8260D
SE02-0121 (A1A0458-03)		Matrix: Water			Batch: 1012821			
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 16:16	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 16:16	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 16:16	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03)		Matrix: Water			Batch: 1012821			
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 16:16	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 16:16	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 16:16	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03)		Matrix: Water			Batch: 1012821			
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	102 %	Limits:	80-120 %	1	01/13/21 16:16	EPA 8260D
Toluene-d8 (Surr)			100 %		80-120 %	1	01/13/21 16:16	EPA 8260D
4-Bromofluorobenzene (Surr)			103 %		80-120 %	1	01/13/21 16:16	EPA 8260D
GW01-0121 (A1A0458-04)		Matrix: Water			Batch: 1012821			
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 16:44	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 16:44	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 16:44	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 16:44	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)		Matrix: Water			Batch: 1012821			
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 16:44	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)		Matrix: Water			Batch: 1012821			
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %	1	01/13/21 16:44	EPA 8260D	
Toluene-d8 (Surr)		100 %		80-120 %	1	01/13/21 16:44	EPA 8260D	
4-Bromofluorobenzene (Surr)		104 %		80-120 %	1	01/13/21 16:44	EPA 8260D	
SW01-0121 (A1A0458-05)		Matrix: Water			Batch: 1012821			
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 17:13	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 17:13	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW01-0121 (A1A0458-05)		Matrix: Water			Batch: 1012821			
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 17:13	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 17:13	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW01-0121 (A1A0458-05)		Matrix: Water			Batch: 1012821			
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>102 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>01/13/21 17:13</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>01/13/21 17:13</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>01/13/21 17:13</i>	<i>EPA 8260D</i>
SW02-0121 (A1A0458-06)		Matrix: Water			Batch: 1012821			
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 18:09	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 18:09	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 18:09	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW02-0121 (A1A0458-06)		Matrix: Water			Batch: 1012821			
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 18:09	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 18:09	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW02-0121 (A1A0458-06)		Matrix: Water			Batch: 1012821			
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %	1	01/13/21 18:09	EPA 8260D	
Toluene-d8 (Surr)		100 %		80-120 %	1	01/13/21 18:09	EPA 8260D	
4-Bromofluorobenzene (Surr)		104 %		80-120 %	1	01/13/21 18:09	EPA 8260D	

SW03-0121 (A1A0458-07)

Matrix: Water

Batch: 1012821

Acetone	ND	10.0	20.0	ug/L	1	01/13/21 17:41	EPA 8260D
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 17:41	EPA 8260D

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07)		Matrix: Water			Batch: 1012821			
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07)		Matrix: Water			Batch: 1012821			
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %	1	01/13/21 17:41	EPA 8260D	
Toluene-d8 (Surr)		99 %		80-120 %	1	01/13/21 17:41	EPA 8260D	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: **Landfill WA State**

Project Manager: **Genevieve Schutzius**

Report ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07)				Matrix: Water		Batch: 1012821		
<i>Surrogate: 4-Bromofluorobenzene (Surr)</i>		<i>Recovery: 104 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>01/13/21 17:41</i>	<i>EPA 8260D</i>		

Apex Laboratories

Philip Nerenberg

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)		Matrix: Water			Batch: 1012876			
Acenaphthene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Acenaphthylene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Benz(a)anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzo(a)pyrene	ND	0.0146	0.0291	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0146	0.0291	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0146	0.0291	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Chrysene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Fluoranthene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Fluorene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
1-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 18:23	EPA 8270E	
Naphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 18:23	EPA 8270E	
Phenanthrene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Pyrene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Carbazole	ND	0.0146	0.0291	ug/L	1	01/15/21 18:23	EPA 8270E	
Dibenzofuran	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Chlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4-Dichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4-Dimethylphenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4-Dinitrophenol	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Methylphenol	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Nitrophenol	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
4-Nitrophenol	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
Phenol	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)		Matrix: Water			Batch: 1012876			
2,3,5,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Butyl benzyl phthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Diethylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Dimethylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Di-n-butylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Di-n-octyl phthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Hexachlorobenzene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Hexachlorobutadiene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
Hexachloroethane	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Chloronaphthalene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Aniline	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
4-Chloroaniline	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
3-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
4-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Nitrobenzene	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzoic acid	ND	1.21	2.43	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzyl alcohol	0.106	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	Ja

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)		Matrix: Water			Batch: 1012876			
Isophorone	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.485	0.971	ug/L	1	01/15/21 18:23	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
1,3-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
1,4-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
Pyridine	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	73 %	Limits:	44-120 %	1	01/15/21 18:23	EPA 8270E
2-Fluorobiphenyl (Surr)			64 %		44-120 %	1	01/15/21 18:23	EPA 8270E
Phenol-d6 (Surr)			24 %		10-133 %	1	01/15/21 18:23	EPA 8270E
p-Terphenyl-d14 (Surr)			85 %		50-134 %	1	01/15/21 18:23	EPA 8270E
2-Fluorophenol (Surr)			34 %		19-120 %	1	01/15/21 18:23	EPA 8270E
2,4,6-Tribromophenol (Surr)			85 %		43-140 %	1	01/15/21 18:23	EPA 8270E
SE101-0121 (A1A0458-02)		Matrix: Water			Batch: 1012876			
Acenaphthene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Acenaphthylene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Anthracene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Benz(a)anthracene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzo(a)pyrene	ND	0.0149	0.0297	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0149	0.0297	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0149	0.0297	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Chrysene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Fluoranthene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Fluorene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
1-Methylnaphthalene	ND	0.0198	0.0396	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Methylnaphthalene	ND	0.0198	0.0396	ug/L	1	01/15/21 18:58	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE101-0121 (A1A0458-02)		Matrix: Water			Batch: 1012876			
Naphthalene	ND	0.0198	0.0396	ug/L	1	01/15/21 18:58	EPA 8270E	
Phenanthrene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Pyrene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Carbazole	ND	0.0149	0.0297	ug/L	1	01/15/21 18:58	EPA 8270E	
Dibenzofuran	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Chlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4-Dichlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4-Dimethylphenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4-Dinitrophenol	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Methylphenol	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Nitrophenol	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Nitrophenol	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
Phenol	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Butyl benzyl phthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Diethylphthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Dimethylphthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Di-n-butylphthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Di-n-octyl phthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE101-0121 (A1A0458-02)		Matrix: Water			Batch: 1012876			
Hexachlorobenzene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Hexachlorobutadiene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
Hexachloroethane	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Chloronaphthalene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Aniline	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Chloroaniline	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Nitroaniline	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
3-Nitroaniline	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Nitroaniline	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Nitrobenzene	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzoic acid	ND	1.24	2.48	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzyl alcohol	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
Isophorone	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.495	0.990	ug/L	1	01/15/21 18:58	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
1,3-Dinitrobenzene	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
1,4-Dinitrobenzene	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
Pyridine	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	68 %	Limits:	44-120 %	1	01/15/21 18:58	EPA 8270E
2-Fluorobiphenyl (Surr)			68 %		44-120 %	1	01/15/21 18:58	EPA 8270E
Phenol-d6 (Surr)			22 %		10-133 %	1	01/15/21 18:58	EPA 8270E
p-Terphenyl-d14 (Surr)			89 %		50-134 %	1	01/15/21 18:58	EPA 8270E
2-Fluorophenol (Surr)			35 %		19-120 %	1	01/15/21 18:58	EPA 8270E

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE101-0121 (A1A0458-02)		Matrix: Water			Batch: 1012876			
<i>Surrogate: 2,4,6-Tribromophenol (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 43-140 %</i>	<i>1</i>	<i>01/15/21 18:58</i>	<i>EPA 8270E</i>	
SE02-0121 (A1A0458-03)		Matrix: Water			Batch: 1012876			
Acenaphthene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Acenaphthylene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Anthracene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Benz(a)anthracene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzo(a)pyrene	ND	0.0144	0.0288	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0144	0.0288	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0144	0.0288	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Chrysene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Fluoranthene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Fluorene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
1-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	01/15/21 19:34	EPA 8270E	
Naphthalene	ND	0.0192	0.0385	ug/L	1	01/15/21 19:34	EPA 8270E	
Phenanthrene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Pyrene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Carbazole	ND	0.0144	0.0288	ug/L	1	01/15/21 19:34	EPA 8270E	
Dibenzofuran	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Chlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4-Dichlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4-Dimethylphenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4-Dinitrophenol	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Methylphenol	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Nitrophenol	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Nitrophenol	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03)		Matrix: Water			Batch: 1012876			
Phenol	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Butyl benzyl phthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Diethylphthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Dimethylphthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Di-n-butylphthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Di-n-octyl phthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Hexachlorobenzene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Hexachlorobutadiene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
Hexachloroethane	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Chloronaphthalene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Aniline	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Chloroaniline	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Nitroaniline	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
3-Nitroaniline	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Nitroaniline	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Nitrobenzene	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03)		Matrix: Water			Batch: 1012876			
Benzoic acid	ND	1.20	2.40	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzyl alcohol	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
Isophorone	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.481	0.962	ug/L	1	01/15/21 19:34	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
1,3-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
1,4-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
Pyridine	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	59 %	<i>Limits:</i>	44-120 %	1	01/15/21 19:34	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			62 %		44-120 %	1	01/15/21 19:34	EPA 8270E
<i>Phenol-d6 (Surr)</i>			19 %		10-133 %	1	01/15/21 19:34	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			76 %		50-134 %	1	01/15/21 19:34	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			30 %		19-120 %	1	01/15/21 19:34	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			83 %		43-140 %	1	01/15/21 19:34	EPA 8270E
GW01-0121 (A1A0458-04)		Matrix: Water			Batch: 1012876			
Acenaphthene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Acenaphthylene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Benz(a)anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzo(a)pyrene	ND	0.0146	0.0291	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0146	0.0291	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0146	0.0291	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Chrysene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Fluoranthene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Fluorene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)		Matrix: Water			Batch: 1012876			
1-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 20:09	EPA 8270E	
Naphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 20:09	EPA 8270E	
Phenanthrene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Pyrene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Carbazole	ND	0.0146	0.0291	ug/L	1	01/15/21 20:09	EPA 8270E	
Dibenzofuran	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Chlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4-Dichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4-Dimethylphenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4-Dinitrophenol	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Methylphenol	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Nitrophenol	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Nitrophenol	ND	0.194	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
Phenol	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Butyl benzyl phthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Diethylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Dimethylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Di-n-butylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Di-n-octyl phthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)		Matrix: Water			Batch: 1012876			
Bis(2-Chloroethyl) ether	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Hexachlorobenzene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Hexachlorobutadiene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
Hexachloroethane	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Chloronaphthalene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Aniline	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Chloroaniline	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
3-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Nitrobenzene	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzoic acid	ND	1.21	2.43	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzyl alcohol	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
Isophorone	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.485	0.971	ug/L	1	01/15/21 20:09	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
1,3-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
1,4-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
Pyridine	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 42 %		Limits: 44-120 %	1	01/15/21 20:09	EPA 8270E	S-03
2-Fluorobiphenyl (Surr)		38 %		44-120 %	1	01/15/21 20:09	EPA 8270E	S-03

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)		Matrix: Water			Batch: 1012876			
Surrogate: Phenol-d6 (Surr)		Recovery: 15 %	Limits: 10-133 %	1		01/15/21 20:09	EPA 8270E	
p-Terphenyl-d14 (Surr)		62 %	50-134 %	1		01/15/21 20:09	EPA 8270E	
2-Fluorophenol (Surr)		21 %	19-120 %	1		01/15/21 20:09	EPA 8270E	
2,4,6-Tribromophenol (Surr)		69 %	43-140 %	1		01/15/21 20:09	EPA 8270E	
SW01-0121 (A1A0458-05RE1)		Matrix: Water			Batch: 1012876			
Acenaphthene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Acenaphthylene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Anthracene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Benz(a)anthracene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzo(a)pyrene	ND	0.0156	0.0312	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0156	0.0312	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0156	0.0312	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Chrysene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Fluoranthene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Fluorene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
1-Methylnaphthalene	ND	0.0208	0.0417	ug/L	1	01/15/21 20:44	EPA 8270E	
2-Methylnaphthalene	ND	0.0208	0.0417	ug/L	1	01/15/21 20:44	EPA 8270E	
Naphthalene	ND	0.0208	0.0417	ug/L	1	01/15/21 20:44	EPA 8270E	
Phenanthrene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Pyrene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Carbazole	ND	0.0156	0.0312	ug/L	1	01/15/21 20:44	EPA 8270E	
Dibenzofuran	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
2-Chlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4-Dichlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4-Dimethylphenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4-Dinitrophenol	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
2-Methylphenol	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW01-0121 (A1A0458-05RE1)		Matrix: Water			Batch: 1012876			
2-Nitrophenol	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
4-Nitrophenol	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
Phenol	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	
Butyl benzyl phthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	
Diethylphthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	
Dimethylphthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	
Di-n-butylphthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	
Di-n-octyl phthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Hexachlorobenzene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Hexachlorobutadiene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
Hexachloroethane	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
2-Chloronaphthalene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Aniline	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
4-Chloroaniline	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
2-Nitroaniline	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	
3-Nitroaniline	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	
4-Nitroaniline	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW01-0121 (A1A0458-05RE1)		Matrix: Water			Batch: 1012876			
Nitrobenzene	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4-Dinitrotoluene	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
2,6-Dinitrotoluene	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzoic acid	ND	1.30	2.60	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzyl alcohol	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
Isophorone	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.521	1.04	ug/L	1	01/15/21 20:44	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
1,3-Dinitrobenzene	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
1,4-Dinitrobenzene	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
Pyridine	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 69 %</i>		<i>Limits: 44-120 %</i>	<i>1</i>	<i>01/15/21 20:44</i>	<i>EPA 8270E</i>	
<i>2-Fluorobiphenyl (Surr)</i>		<i>60 %</i>		<i>44-120 %</i>	<i>1</i>	<i>01/15/21 20:44</i>	<i>EPA 8270E</i>	
<i>Phenol-d6 (Surr)</i>		<i>25 %</i>		<i>10-133 %</i>	<i>1</i>	<i>01/15/21 20:44</i>	<i>EPA 8270E</i>	
<i>p-Terphenyl-d14 (Surr)</i>		<i>80 %</i>		<i>50-134 %</i>	<i>1</i>	<i>01/15/21 20:44</i>	<i>EPA 8270E</i>	
<i>2-Fluorophenol (Surr)</i>		<i>36 %</i>		<i>19-120 %</i>	<i>1</i>	<i>01/15/21 20:44</i>	<i>EPA 8270E</i>	
<i>2,4,6-Tribromophenol (Surr)</i>		<i>83 %</i>		<i>43-140 %</i>	<i>1</i>	<i>01/15/21 20:44</i>	<i>EPA 8270E</i>	
SW02-0121 (A1A0458-06RE1)		Matrix: Water			Batch: 1012876			
Acenaphthene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Acenaphthylene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Anthracene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Benz(a)anthracene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzo(a)pyrene	ND	0.0150	0.0300	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0150	0.0300	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0150	0.0300	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Chrysene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW02-0121 (A1A0458-06RE1)		Matrix: Water			Batch: 1012876			
Fluoranthene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Fluorene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
1-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	01/15/21 21:18	EPA 8270E	
Naphthalene	ND	0.0200	0.0400	ug/L	1	01/15/21 21:18	EPA 8270E	
Phenanthrene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Pyrene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Carbazole	ND	0.0150	0.0300	ug/L	1	01/15/21 21:18	EPA 8270E	
Dibenzofuran	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Chlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4-Dimethylphenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4-Dinitrophenol	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Methylphenol	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Nitrophenol	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Nitrophenol	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
Phenol	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Butyl benzyl phthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Diethylphthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Dimethylphthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Di-n-butylphthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Di-n-octyl phthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW02-0121 (A1A0458-06RE1)		Matrix: Water			Batch: 1012876			
N-Nitroso-di-n-propylamine	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Hexachlorobenzene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Hexachlorobutadiene	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
Hexachloroethane	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Chloronaphthalene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Aniline	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Chloroaniline	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Nitroaniline	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
3-Nitroaniline	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Nitroaniline	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Nitrobenzene	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4-Dinitrotoluene	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
2,6-Dinitrotoluene	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzoic acid	ND	1.25	2.50	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzyl alcohol	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
Isophorone	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.500	1.00	ug/L	1	01/15/21 21:18	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
1,3-Dinitrobenzene	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
1,4-Dinitrobenzene	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
Pyridine	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW02-0121 (A1A0458-06RE1)		Matrix: Water			Batch: 1012876			
1,4-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	78 %	<i>Limits:</i>	44-120 %	1	01/15/21 21:18	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			67 %		44-120 %	1	01/15/21 21:18	EPA 8270E
<i>Phenol-d6 (Surr)</i>			27 %		10-133 %	1	01/15/21 21:18	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			82 %		50-134 %	1	01/15/21 21:18	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			38 %		19-120 %	1	01/15/21 21:18	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			84 %		43-140 %	1	01/15/21 21:18	EPA 8270E
SW03-0121 (A1A0458-07RE1)		Matrix: Water			Batch: 1013031			
Acenaphthene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Acenaphthylene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Anthracene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Benz(a)anthracene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzo(a)pyrene	ND	0.0144	0.0288	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0144	0.0288	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0144	0.0288	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Chrysene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Fluoranthene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Fluorene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
1-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	01/20/21 20:25	EPA 8270E	
Naphthalene	ND	0.0192	0.0385	ug/L	1	01/20/21 20:25	EPA 8270E	
Phenanthrene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Pyrene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Carbazole	ND	0.0144	0.0288	ug/L	1	01/20/21 20:25	EPA 8270E	
Dibenzofuran	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Chlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4-Dichlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4-Dimethylphenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4-Dinitrophenol	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07RE1)				Matrix: Water		Batch: 1013031		
4,6-Dinitro-2-methylphenol	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Methylphenol	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Nitrophenol	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Nitrophenol	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
Phenol	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Butyl benzyl phthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Diethylphthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Dimethylphthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Di-n-butylphthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Di-n-octyl phthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Hexachlorobenzene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Hexachlorobutadiene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
Hexachloroethane	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Chloronaphthalene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Aniline	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Chloroaniline	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07RE1)		Matrix: Water			Batch: 1013031			
2-Nitroaniline	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
3-Nitroaniline	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Nitroaniline	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Nitrobenzene	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzoic acid	ND	1.20	2.40	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzyl alcohol	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
Isophorone	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.481	0.962	ug/L	1	01/20/21 20:25	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
1,3-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
1,4-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
Pyridine	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	73 %	<i>Limits:</i>	44-120 %	1	01/20/21 20:25	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			73 %		44-120 %	1	01/20/21 20:25	EPA 8270E
<i>Phenol-d6 (Surr)</i>			24 %		10-133 %	1	01/20/21 20:25	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			88 %		50-134 %	1	01/20/21 20:25	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			40 %		19-120 %	1	01/20/21 20:25	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			87 %		43-140 %	1	01/20/21 20:25	EPA 8270E

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)		Matrix: Water						
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Barium	6.61	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	
Cadmium	0.128	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	Ja
Calcium	11900	300	600	ug/L	1	01/22/21 18:29	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Copper	3.79	1.00	2.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Lead	1.55	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	
Magnesium	3010	50.0	100	ug/L	1	01/22/21 18:29	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Zinc	50.4	2.00	4.00	ug/L	1	01/22/21 18:29	EPA 6020B	
SE101-0121 (A1A0458-02)		Matrix: Water						
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Barium	6.77	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B	
Cadmium	0.128	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B	Ja
Calcium	11600	300	600	ug/L	1	01/22/21 18:34	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Copper	5.24	1.00	2.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Lead	3.27	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B	
Magnesium	2900	50.0	100	ug/L	1	01/22/21 18:34	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE101-0121 (A1A0458-02)		Matrix: Water						
Silver	ND	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Zinc	59.6	2.00	4.00	ug/L	1	01/22/21 18:34	EPA 6020B	
SE02-0121 (A1A0458-03)		Matrix: Water						
Batch: 1013175								
Antimony	0.575	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B	Ja
Arsenic	1.66	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B	
Barium	382	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B	
Cadmium	0.159	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B	Ja
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B	
Cobalt	0.624	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B	Ja
Copper	10.5	1.00	2.00	ug/L	1	01/22/21 18:39	EPA 6020B	
Lead	7.32	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B	
Magnesium	24500	50.0	100	ug/L	1	01/22/21 18:39	EPA 6020B	
Nickel	1.61	1.00	2.00	ug/L	1	01/22/21 18:39	EPA 6020B	Ja
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B	
Vanadium	5.95	1.00	2.00	ug/L	1	01/22/21 18:39	EPA 6020B	
Zinc	205	2.00	4.00	ug/L	1	01/22/21 18:39	EPA 6020B	
SE02-0121 (A1A0458-03RE1)		Matrix: Water						
Batch: 1013175								
Calcium	112000	3000	6000	ug/L	10	02/03/21 16:15	EPA 6020B	
GW01-0121 (A1A0458-04)		Matrix: Water						
Batch: 1013175								
Antimony	1.49	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Barium	55.1	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)		Matrix: Water						
Cadmium	0.285	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Copper	2.07	1.00	2.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Lead	0.564	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B	
Magnesium	21000	50.0	100	ug/L	1	01/22/21 18:45	EPA 6020B	
Nickel	2.39	1.00	2.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B	
Vanadium	2.35	1.00	2.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Zinc	580	2.00	4.00	ug/L	1	01/22/21 18:45	EPA 6020B	
GW01-0121 (A1A0458-04RE2)		Matrix: Water						
Batch: 1013175								
Calcium	148000	3000	6000	ug/L	10	02/03/21 16:20	EPA 6020B	Q-42
SW01-0121 (A1A0458-05)		Matrix: Water						
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Barium	7.32	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	
Calcium	9490	300	600	ug/L	1	01/22/21 19:00	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Copper	2.19	1.00	2.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Lead	1.08	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	
Magnesium	2850	50.0	100	ug/L	1	01/22/21 19:00	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW01-0121 (A1A0458-05)				Matrix: Water				
Vanadium	2.21	1.00	2.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Zinc	42.0	2.00	4.00	ug/L	1	01/22/21 19:00	EPA 6020B	
SW02-0121 (A1A0458-06)				Matrix: Water				
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Barium	5.22	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Calcium	8750	300	600	ug/L	1	01/22/21 19:06	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Copper	2.90	1.00	2.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Lead	2.59	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Magnesium	2640	50.0	100	ug/L	1	01/22/21 19:06	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Vanadium	1.03	1.00	2.00	ug/L	1	01/22/21 19:06	EPA 6020B	Ja
Zinc	62.4	2.00	4.00	ug/L	1	01/22/21 19:06	EPA 6020B	
SW03-0121 (A1A0458-07)				Matrix: Water				
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Barium	2.18	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Calcium	8330	300	600	ug/L	1	01/22/21 19:21	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	01/22/21 19:21	EPA 6020B	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07)		Matrix: Water						
Lead	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Magnesium	2510	50.0	100	ug/L	1	01/22/21 19:21	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Vanadium	1.02	1.00	2.00	ug/L	1	01/22/21 19:21	EPA 6020B	Ja
Zinc	4.00	2.00	4.00	ug/L	1	01/22/21 19:21	EPA 6020B	

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ANALYTICAL REPORT

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Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)		Matrix: Water						
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Barium	5.73	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Copper	1.65	1.00	2.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1, Ja
Lead	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Zinc	41.1	2.00	4.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
SE101-0121 (A1A0458-02)		Matrix: Water						
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Barium	5.64	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Copper	1.66	1.00	2.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1, Ja
Lead	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Zinc	43.8	2.00	4.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1

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ANALYTICAL REPORT

AMENDED REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03) Matrix: Water								
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Arsenic	1.01	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Barium	36.6	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Cadmium	0.103	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1, Ja
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Copper	1.94	1.00	2.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1, Ja
Lead	0.182	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1, Ja
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Vanadium	2.46	1.00	2.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Zinc	134	2.00	4.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
GW01-0121 (A1A0458-04) Matrix: Water								
Batch: 1013184								
Antimony	1.47	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Barium	51.7	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Cadmium	0.283	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Copper	1.58	1.00	2.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1, Ja
Lead	ND	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Nickel	1.81	1.00	2.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1, Ja
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Vanadium	1.51	1.00	2.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1, Ja

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ANALYTICAL REPORT

AMENDED REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)		Matrix: Water						
Zinc	547	2.00	4.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
SW01-0121 (A1A0458-05)		Matrix: Water						
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Barium	6.33	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Copper	1.70	1.00	2.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1, Ja
Lead	0.493	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Vanadium	1.91	1.00	2.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1, Ja
Zinc	35.2	2.00	4.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
SW02-0121 (A1A0458-06)		Matrix: Water						
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Barium	3.78	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Copper	ND	1.00	2.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Lead	0.103	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1, Ja
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW02-0121 (A1A0458-06)				Matrix: Water				
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Zinc	36.8	2.00	4.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
SW03-0121 (A1A0458-07)				Matrix: Water				
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Barium	1.83	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Copper	ND	1.00	2.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Lead	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Vanadium	1.14	1.00	2.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1, Ja
Zinc	ND	2.00	4.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Total Hardness (Calculated) by SM 2340B (6020B)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01) Matrix: Water								
(Calculated)								
Hardness	42.0	---	1.91	mg CaCO3/L	1	01/22/21 18:29	SM 2340B	
SE101-0121 (A1A0458-02) Matrix: Water								
(Calculated)								
Hardness	41.0	---	1.91	mg CaCO3/L	1	01/22/21 18:34	SM 2340B	
SE02-0121 (A1A0458-03) Matrix: Water								
(Calculated)								
Hardness	380	---	15.4	mg CaCO3/L	10	02/03/21 16:15	SM 2340B	
GW01-0121 (A1A0458-04) Matrix: Water								
(Calculated)								
Hardness	456	---	15.4	mg CaCO3/L	10	02/03/21 16:20	SM 2340B	
SW01-0121 (A1A0458-05) Matrix: Water								
(Calculated)								
Hardness	35.4	---	1.91	mg CaCO3/L	1	01/22/21 19:00	SM 2340B	
SW02-0121 (A1A0458-06) Matrix: Water								
(Calculated)								
Hardness	32.7	---	1.91	mg CaCO3/L	1	01/22/21 19:06	SM 2340B	
SW03-0121 (A1A0458-07) Matrix: Water								
(Calculated)								
Hardness	31.1	---	1.91	mg CaCO3/L	1	01/22/21 19:21	SM 2340B	

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ANALYTICAL REPORT

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Apex Laboratories, LLC

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Tigard, OR 97223

503-718-2323

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve SchutziusReport ID:

A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Nitrate + Nitrite by EPA 353.2

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)				Matrix: Water		Batch: 1012984		
Nitrate+Nitrite Nitrogen	0.459	0.0100	0.0200	mg/L	1	01/18/21 15:10	EPA 353.2	
SE101-0121 (A1A0458-02)				Matrix: Water		Batch: 1012984		
Nitrate+Nitrite Nitrogen	0.454	0.0100	0.0200	mg/L	1	01/18/21 15:14	EPA 353.2	
SE02-0121 (A1A0458-03)				Matrix: Water		Batch: 1012984		
Nitrate+Nitrite Nitrogen	3.76	0.0500	0.100	mg/L	5	01/18/21 15:15	EPA 353.2	
GW01-0121 (A1A0458-04)				Matrix: Water		Batch: 1012984		
Nitrate+Nitrite Nitrogen	5.99	0.0500	0.100	mg/L	5	01/18/21 15:21	EPA 353.2	
SW01-0121 (A1A0458-05)				Matrix: Water		Batch: 1012984		
Nitrate+Nitrite Nitrogen	0.812	0.0200	0.0400	mg/L	2	01/18/21 15:22	EPA 353.2	
SW02-0121 (A1A0458-06)				Matrix: Water		Batch: 1012984		
Nitrate+Nitrite Nitrogen	0.303	0.0100	0.0200	mg/L	1	01/18/21 15:24	EPA 353.2	
SW03-0121 (A1A0458-07)				Matrix: Water		Batch: 1012984		
Nitrate+Nitrite Nitrogen	0.346	0.0100	0.0200	mg/L	1	01/18/21 15:25	EPA 353.2	

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****Weck Laboratories, Inc.****ANALYTICAL SAMPLE RESULTS (Subcontracted)****PPCPs - Polybrominated Diphenyl Ethers by GC/MS SIM**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)		Matrix: Water			Batch: W1A1118			
Batch: W1A1118								
PBDE-17	ND	1.7	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-28	ND	2.0	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-49	ND	1.5	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-47	ND	2.8	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-99	ND	3.2	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-100	ND	4.0	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-85	ND	5.9	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-138	ND	3.1	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-153	ND	7.9	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-154	ND	7.9	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
Batch: W1A1118								
Surrogate: Perylene-d12		Recovery: 106 %		Limits: 50-150 %	1	01/27/21 16:12	GC/MS SIM	
Triphenyl phosphate		141 %		50-150 %	1	01/27/21 16:12	GC/MS SIM	
SE101-0121 (A1A0458-02)		Matrix: Water			Batch: W1A1118			
Batch: W1A1118								
PBDE-17	ND	1.7	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-28	ND	2.0	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-49	ND	1.5	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-47	ND	2.8	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-99	ND	3.2	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-100	ND	4.0	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-85	ND	5.9	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-138	ND	3.1	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-153	ND	7.9	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-154	ND	7.9	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
Batch: W1A1118								
Surrogate: Perylene-d12		Recovery: 99 %		Limits: 50-150 %	1	01/27/21 16:30	GC/MS SIM	
Triphenyl phosphate		136 %		50-150 %	1	01/27/21 16:30	GC/MS SIM	
SE02-0121 (A1A0458-03)		Matrix: Water			Batch: W1A1118			
Batch: W1A1118								

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****Weck Laboratories, Inc.****ANALYTICAL SAMPLE RESULTS (Subcontracted)****PPCPs - Polybrominated Diphenyl Ethers by GC/MS SIM**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03)		Matrix: Water			Batch: W1A1118			
PBDE-17	ND	4.3	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-28	ND	5.1	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-49	ND	3.8	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-47	ND	7.0	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-99	ND	8.0	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-100	ND	10	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-85	ND	15	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-138	ND	7.8	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-153	ND	20	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-154	ND	20	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
Batch: W1A1118								
Surrogate: Perylene-d12		Recovery: 117 %	Limits: 50-150 %	1	01/27/21 16:47	GC/MS SIM		
Triphenyl phosphate		162 %	50-150 %	1	01/27/21 16:47	GC/MS SIM	S-GC	
GW01-0121 (A1A0458-04)		Matrix: Water			Batch: W1A1118			
Batch: W1A1118								
PBDE-17	2.2	1.7	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02, J
PBDE-28	ND	2.0	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-49	ND	1.5	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-47	ND	2.8	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-99	ND	3.2	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-100	ND	4.0	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-85	ND	5.9	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-138	ND	3.1	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-153	ND	7.9	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-154	ND	7.9	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
Batch: W1A1118								
Surrogate: Perylene-d12		Recovery: 93 %	Limits: 50-150 %	1	01/27/21 18:30	GC/MS SIM		
Triphenyl phosphate		168 %	50-150 %	1	01/27/21 18:30	GC/MS SIM	S-GC	
SW01-0121 (A1A0458-05)		Matrix: Water			Batch: W1A1118			
Batch: W1A1118								

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

PPCPs - Polybrominated Diphenyl Ethers by GC/MS SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW01-0121 (A1A0458-05)		Matrix: Water			Batch: W1A1118			
PBDE-17	4.7	1.7	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02, J
PBDE-28	3.9	2.0	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02, J
PBDE-49	5.1	1.5	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02, J
PBDE-47	3.9	2.8	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02, J
PBDE-99	3.4	3.2	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02, J
PBDE-100	4.1	4.0	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02, J
PBDE-85	ND	5.9	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02
PBDE-138	ND	3.1	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02
PBDE-153	ND	7.9	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02
PBDE-154	ND	7.9	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02
Batch: W1A1118								
Surrogate: Perylene-d12		Recovery: 90 %		Limits: 50-150 %	1	01/27/21 18:47	GC/MS SIM	
Triphenyl phosphate		174 %		50-150 %	1	01/27/21 18:47	GC/MS SIM	S-GC
SW02-0121 (A1A0458-06)		Matrix: Water			Batch: W1A1118			
Batch: W1A1118								
PBDE-17	ND	4.3	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
PBDE-28	ND	5.1	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
PBDE-49	ND	3.8	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
PBDE-47	ND	7.0	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
PBDE-99	ND	8.0	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
PBDE-100	ND	10	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
PBDE-85	ND	15	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
PBDE-138	ND	7.8	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
PBDE-153	ND	20	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
PBDE-154	ND	20	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02
Batch: W1A1118								
Surrogate: Perylene-d12		Recovery: 107 %		Limits: 50-150 %	1	01/27/21 17:39	GC/MS SIM	
Triphenyl phosphate		164 %		50-150 %	1	01/27/21 17:39	GC/MS SIM	S-GC
SW03-0121 (A1A0458-07)		Matrix: Water			Batch: W1A1118			
Batch: W1A1118								

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****Weck Laboratories, Inc.****ANALYTICAL SAMPLE RESULTS (Subcontracted)****PPCPs - Polybrominated Diphenyl Ethers by GC/MS SIM**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07)		Matrix: Water			Batch: W1A1118			
PBDE-17	ND	0.86	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-28	ND	1.0	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-49	ND	0.76	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-47	ND	1.4	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-99	ND	1.6	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-100	ND	2.0	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-85	ND	2.9	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-138	ND	1.6	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-153	ND	3.9	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-154	ND	3.9	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
Batch: W1A1118								
Surrogate: Perylene-d12		Recovery: 116 %	Limits: 50-150 %	1	01/27/21 17:56	GC/MS SIM		
Triphenyl phosphate		165 %	50-150 %	1	01/27/21 17:56	GC/MS SIM	S-GC	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C						Water						
Blank (1012821-BLK1)			Prepared: 01/13/21 08:00		Analyzed: 01/13/21 10:45							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C						Water						
Blank (1012821-BLK1)						Prepared: 01/13/21 08:00 Analyzed: 01/13/21 10:45						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 102 % Limits: 80-120 % Dilution: 1x												

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C						Water						
Blank (1012821-BLK1)				Prepared: 01/13/21 08:00		Analyzed: 01/13/21 10:45						
Surr: Toluene-d8 (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		106 %		80-120 %		"						
LCS (1012821-BS1)				Prepared: 01/13/21 08:00		Analyzed: 01/13/21 09:42						
EPA 8260D												
Acetone	37.2	10.0	20.0	ug/L	1	40.0	---	93	80-120%	---	---	Q-56
Acrylonitrile	20.4	1.00	2.00	ug/L	1	20.0	---	102	80-120%	---	---	
Benzene	21.0	0.100	0.200	ug/L	1	20.0	---	105	80-120%	---	---	
Bromobenzene	17.8	0.250	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
Bromochloromethane	17.2	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
Bromodichloromethane	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromoform	19.9	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromomethane	29.0	5.00	5.00	ug/L	1	20.0	---	145	80-120%	---	---	
2-Butanone (MEK)	38.3	5.00	10.0	ug/L	1	40.0	---	96	80-120%	---	---	
n-Butylbenzene	22.1	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
sec-Butylbenzene	20.7	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
tert-Butylbenzene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Carbon disulfide	19.4	5.00	10.0	ug/L	1	20.0	---	97	80-120%	---	---	
Carbon tetrachloride	21.1	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Chlorobenzene	21.0	0.250	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Chloroethane	16.8	5.00	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
Chloroform	17.6	0.500	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
Chloromethane	15.4	5.00	5.00	ug/L	1	20.0	---	77	80-120%	---	---	
2-Chlorotoluene	19.1	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Chlorotoluene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	23.9	0.500	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.6	2.50	5.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dibromoethane (EDB)	22.5	0.250	0.500	ug/L	1	20.0	---	113	80-120%	---	---	
Dibromomethane	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichlorobenzene	18.3	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,3-Dichlorobenzene	18.8	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
1,4-Dichlorobenzene	20.8	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dichlorodifluoromethane	16.2	0.500	1.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1-Dichloroethane	17.2	0.200	0.400	ug/L	1	20.0	---	86	80-120%	---	---	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C						Water						
LCS (1012821-BS1)			Prepared: 01/13/21 08:00		Analyzed: 01/13/21 09:42							
1,2-Dichloroethane (EDC)	16.1	0.200	0.400	ug/L	1	20.0	---	80	80-120%	---	---	
1,1-Dichloroethene	17.7	0.200	0.400	ug/L	1	20.0	---	88	80-120%	---	---	
cis-1,2-Dichloroethene	18.6	0.200	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,2-Dichloroethene	19.0	0.200	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloropropane	17.5	0.250	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
1,3-Dichloropropane	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
2,2-Dichloropropane	23.1	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,1-Dichloropropene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
cis-1,3-Dichloropropene	23.1	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
trans-1,3-Dichloropropene	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Ethylbenzene	20.9	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Hexachlorobutadiene	22.9	2.50	5.00	ug/L	1	20.0	---	114	80-120%	---	---	
2-Hexanone	42.8	5.00	10.0	ug/L	1	40.0	---	107	80-120%	---	---	
Isopropylbenzene	21.5	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
4-Isopropyltoluene	22.4	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Methylene chloride	17.7	5.00	10.0	ug/L	1	20.0	---	89	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	39.5	5.00	10.0	ug/L	1	40.0	---	99	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Naphthalene	20.4	1.00	2.00	ug/L	1	20.0	---	102	80-120%	---	---	
n-Propylbenzene	17.2	0.250	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Styrene	23.2	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.2	0.200	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.2	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Tetrachloroethene (PCE)	20.0	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
Toluene	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,3-Trichlorobenzene	24.3	1.00	2.00	ug/L	1	20.0	---	122	80-120%	---	---	Q-56
1,2,4-Trichlorobenzene	23.6	1.00	2.00	ug/L	1	20.0	---	118	80-120%	---	---	
1,1,1-Trichloroethane	19.0	0.200	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,2-Trichloroethane	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Trichloroethene (TCE)	18.4	0.200	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
Trichlorofluoromethane	17.7	1.00	2.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,3-Trichloropropane	19.1	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,4-Trimethylbenzene	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,3,5-Trimethylbenzene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C						Water						
LCS (1012821-BS1)			Prepared: 01/13/21 08:00		Analyzed: 01/13/21 09:42							
Vinyl chloride	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
m,p-Xylene	38.7	0.500	1.00	ug/L	1	40.0	---	97	80-120%	---	---	
o-Xylene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						

Duplicate (1012821-DUP1)

Prepared: 01/13/21 10:03 Analyzed: 01/13/21 12:30

QC Source Sample: Non-SDG (A1A0410-01)

Acetone	ND	10.0	20.0	ug/L	1	---	ND	---	---	---	30%
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chloromethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C						Water						
Duplicate (1012821-DUP1)			Prepared: 01/13/21 10:03		Analyzed: 01/13/21 12:30							
QC Source Sample: Non-SDG (A1A0410-01)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	0.550	---	---	***	30%	Q-05
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

Page 58 of 104



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C						Water						
Duplicate (1012821-DUP1)			Prepared: 01/13/21 10:03		Analyzed: 01/13/21 12:30							
QC Source Sample: Non-SDG (A1A0410-01)												
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"						
Matrix Spike (1012821-MS1)			Prepared: 01/13/21 10:03		Analyzed: 01/13/21 13:25							
QC Source Sample: Non-SDG (A1A0410-02)												
EPA 8260D												
Acetone	57.5	10.0	20.0	ug/L	1	40.0	ND	144	39-160%	---	---	
Acrylonitrile	21.0	1.00	2.00	ug/L	1	20.0	ND	105	63-135%	---	---	
Benzene	21.7	0.100	0.200	ug/L	1	20.0	ND	108	79-120%	---	---	
Bromobenzene	17.7	0.250	0.500	ug/L	1	20.0	ND	89	80-120%	---	---	
Bromochloromethane	18.4	0.500	1.00	ug/L	1	20.0	ND	92	78-123%	---	---	
Bromodichloromethane	19.8	0.500	1.00	ug/L	1	20.0	ND	99	79-125%	---	---	
Bromoform	18.9	0.500	1.00	ug/L	1	20.0	ND	95	66-130%	---	---	
Bromomethane	30.1	5.00	5.00	ug/L	1	20.0	ND	151	53-141%	---	---	Q-54a
2-Butanone (MEK)	44.8	5.00	10.0	ug/L	1	40.0	ND	112	56-143%	---	---	
n-Butylbenzene	21.8	0.500	1.00	ug/L	1	20.0	ND	109	75-128%	---	---	
sec-Butylbenzene	20.6	0.500	1.00	ug/L	1	20.0	ND	103	77-126%	---	---	
tert-Butylbenzene	20.2	0.500	1.00	ug/L	1	20.0	ND	101	78-124%	---	---	
Carbon disulfide	20.0	5.00	10.0	ug/L	1	20.0	ND	100	64-133%	---	---	
Carbon tetrachloride	21.6	0.500	1.00	ug/L	1	20.0	ND	108	72-136%	---	---	
Chlorobenzene	21.2	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Chloroethane	18.4	5.00	5.00	ug/L	1	20.0	ND	92	60-138%	---	---	
Chloroform	18.3	0.500	1.00	ug/L	1	20.0	ND	92	79-124%	---	---	
Chloromethane	16.7	5.00	5.00	ug/L	1	20.0	ND	83	50-139%	---	---	Q-54b

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C						Water						
Matrix Spike (1012821-MS1)			Prepared: 01/13/21 10:03 Analyzed: 01/13/21 13:25									
QC Source Sample: Non-SDG (A1A0410-02)												
2-Chlorotoluene	18.7	0.500	1.00	ug/L	1	20.0	ND	93	79-122%	---	---	
4-Chlorotoluene	19.7	0.500	1.00	ug/L	1	20.0	ND	99	78-122%	---	---	
Dibromochloromethane	23.3	0.500	1.00	ug/L	1	20.0	ND	117	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.4	2.50	5.00	ug/L	1	20.0	ND	97	62-128%	---	---	
1,2-Dibromoethane (EDB)	22.8	0.250	0.500	ug/L	1	20.0	ND	114	77-121%	---	---	
Dibromomethane	20.7	0.500	1.00	ug/L	1	20.0	ND	103	79-123%	---	---	
1,2-Dichlorobenzene	18.0	0.250	0.500	ug/L	1	20.0	ND	90	80-120%	---	---	
1,3-Dichlorobenzene	18.5	0.250	0.500	ug/L	1	20.0	ND	93	80-120%	---	---	
1,4-Dichlorobenzene	20.3	0.250	0.500	ug/L	1	20.0	ND	102	79-120%	---	---	
Dichlorodifluoromethane	17.4	0.500	1.00	ug/L	1	20.0	ND	87	32-152%	---	---	
1,1-Dichloroethane	18.1	0.200	0.400	ug/L	1	20.0	ND	90	77-125%	---	---	
1,2-Dichloroethane (EDC)	16.8	0.200	0.400	ug/L	1	20.0	ND	84	73-128%	---	---	
1,1-Dichloroethene	18.7	0.200	0.400	ug/L	1	20.0	ND	93	71-131%	---	---	
cis-1,2-Dichloroethene	19.9	0.200	0.400	ug/L	1	20.0	ND	100	78-123%	---	---	
trans-1,2-Dichloroethene	20.0	0.200	0.400	ug/L	1	20.0	ND	100	75-124%	---	---	
1,2-Dichloropropane	18.2	0.250	0.500	ug/L	1	20.0	ND	91	78-122%	---	---	
1,3-Dichloropropane	19.4	0.500	1.00	ug/L	1	20.0	ND	97	80-120%	---	---	
2,2-Dichloropropane	22.3	0.500	1.00	ug/L	1	20.0	ND	112	60-139%	---	---	
1,1-Dichloropropene	21.5	0.500	1.00	ug/L	1	20.0	ND	107	79-125%	---	---	
cis-1,3-Dichloropropene	21.7	0.500	1.00	ug/L	1	20.0	ND	108	75-124%	---	---	
trans-1,3-Dichloropropene	21.6	0.500	1.00	ug/L	1	20.0	ND	108	73-127%	---	---	
Ethylbenzene	21.3	0.250	0.500	ug/L	1	20.0	ND	107	79-121%	---	---	
Hexachlorobutadiene	18.8	2.50	5.00	ug/L	1	20.0	ND	94	66-134%	---	---	
2-Hexanone	46.9	5.00	10.0	ug/L	1	40.0	ND	117	57-139%	---	---	
Isopropylbenzene	21.4	0.500	1.00	ug/L	1	20.0	ND	107	72-131%	---	---	
4-Isopropyltoluene	22.0	0.500	1.00	ug/L	1	20.0	ND	110	77-127%	---	---	
Methylene chloride	18.5	5.00	10.0	ug/L	1	20.0	ND	93	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	43.9	5.00	10.0	ug/L	1	40.0	ND	110	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	20.4	0.500	1.00	ug/L	1	20.0	ND	102	71-124%	---	---	
Naphthalene	20.0	1.00	2.00	ug/L	1	20.0	ND	100	61-128%	---	---	
n-Propylbenzene	17.5	0.250	0.500	ug/L	1	20.0	ND	88	76-126%	---	---	
Styrene	22.3	0.500	1.00	ug/L	1	20.0	ND	112	78-123%	---	---	
1,1,1,2-Tetrachloroethane	21.8	0.200	0.400	ug/L	1	20.0	ND	109	78-124%	---	---	

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C						Water						
Matrix Spike (1012821-MS1)			Prepared: 01/13/21 10:03		Analyzed: 01/13/21 13:25							
QC Source Sample: Non-SDG (A1A0410-02)												
1,1,2,2-Tetrachloroethane	21.1	0.250	0.500	ug/L	1	20.0	ND	105	71-121%	---	---	Q-54
Tetrachloroethene (PCE)	19.5	0.200	0.400	ug/L	1	20.0	ND	97	74-129%	---	---	
Toluene	21.5	0.500	1.00	ug/L	1	20.0	ND	107	80-121%	---	---	
1,2,3-Trichlorobenzene	23.1	1.00	2.00	ug/L	1	20.0	ND	116	69-129%	---	---	
1,2,4-Trichlorobenzene	22.2	1.00	2.00	ug/L	1	20.0	ND	111	69-130%	---	---	
1,1,1-Trichloroethane	19.3	0.200	0.400	ug/L	1	20.0	ND	97	74-131%	---	---	
1,1,2-Trichloroethane	19.3	0.250	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
Trichloroethene (TCE)	18.2	0.200	0.400	ug/L	1	20.0	ND	91	79-123%	---	---	
Trichlorofluoromethane	18.6	1.00	2.00	ug/L	1	20.0	ND	93	65-141%	---	---	
1,2,3-Trichloropropane	19.5	0.500	1.00	ug/L	1	20.0	ND	97	73-122%	---	---	
1,2,4-Trimethylbenzene	20.9	0.500	1.00	ug/L	1	20.0	ND	104	76-124%	---	---	Q-54
1,3,5-Trimethylbenzene	20.1	0.500	1.00	ug/L	1	20.0	ND	101	75-124%	---	---	
Vinyl chloride	21.2	0.200	0.400	ug/L	1	20.0	ND	106	58-137%	---	---	
m,p-Xylene	39.1	0.500	1.00	ug/L	1	40.0	ND	98	80-121%	---	---	
o-Xylene	21.0	0.250	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)												
		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1012876-BLK1)			Prepared: 01/14/21 10:43		Analyzed: 01/14/21 19:44							
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1012876-BLK1)			Prepared: 01/14/21 10:43		Analyzed: 01/14/21 19:44							
2,3,5,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	1.14	2.27	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Isophorone	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

Page 63 of 104



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1012876-BLK1)			Prepared: 01/14/21 10:43		Analyzed: 01/14/21 19:44							
Azobenzene (1,2-DPH)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	Q-52
Bis(2-Ethylhexyl) adipate	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			Recovery: 77 %		Limits: 44-120 %		Dilution: 1x					
2-Fluorobiphenyl (Surr)			60 %		44-120 %		"					
Phenol-d6 (Surr)			29 %		10-133 %		"					
p-Terphenyl-d14 (Surr)			91 %		50-134 %		"					
2-Fluorophenol (Surr)			41 %		19-120 %		"					
2,4,6-Tribromophenol (Surr)			85 %		43-140 %		"					
LCS (1012876-BS1)			Prepared: 01/14/21 10:43		Analyzed: 01/14/21 20:21							
EPA 8270E												
Acenaphthene	2.57	0.0200	0.0400	ug/L	2	4.00	---	64	47-122%	---	---	
Acenaphthylene	2.86	0.0200	0.0400	ug/L	2	4.00	---	72	41-130%	---	---	
Anthracene	3.18	0.0200	0.0400	ug/L	2	4.00	---	80	57-123%	---	---	
Benz(a)anthracene	3.36	0.0200	0.0400	ug/L	2	4.00	---	84	58-125%	---	---	
Benzo(a)pyrene	3.31	0.0300	0.0600	ug/L	2	4.00	---	83	54-128%	---	---	
Benzo(b)fluoranthene	3.44	0.0300	0.0600	ug/L	2	4.00	---	86	53-131%	---	---	
Benzo(k)fluoranthene	3.23	0.0300	0.0600	ug/L	2	4.00	---	81	57-129%	---	---	
Benzo(g,h,i)perylene	2.78	0.0200	0.0400	ug/L	2	4.00	---	69	50-134%	---	---	
Chrysene	3.29	0.0200	0.0400	ug/L	2	4.00	---	82	59-123%	---	---	
Dibenz(a,h)anthracene	3.17	0.0200	0.0400	ug/L	2	4.00	---	79	51-134%	---	---	
Fluoranthene	3.39	0.0200	0.0400	ug/L	2	4.00	---	85	57-128%	---	---	
Fluorene	2.90	0.0200	0.0400	ug/L	2	4.00	---	72	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	2.94	0.0200	0.0400	ug/L	2	4.00	---	74	52-134%	---	---	
1-Methylnaphthalene	2.02	0.0400	0.0800	ug/L	2	4.00	---	51	41-120%	---	---	
2-Methylnaphthalene	1.99	0.0400	0.0800	ug/L	2	4.00	---	50	40-121%	---	---	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (1012876-BS1)			Prepared: 01/14/21 10:43		Analyzed: 01/14/21 20:21							
Naphthalene	1.90	0.0400	0.0800	ug/L	2	4.00	---	47	40-121%	---	---	Q-31
Phenanthrene	3.01	0.0200	0.0400	ug/L	2	4.00	---	75	59-120%	---	---	
Pyrene	3.28	0.0200	0.0400	ug/L	2	4.00	---	82	57-126%	---	---	
Carbazole	3.51	0.0300	0.0600	ug/L	2	4.00	---	88	60-122%	---	---	
Dibenzofuran	2.67	0.0200	0.0400	ug/L	2	4.00	---	67	53-120%	---	---	
2-Chlorophenol	2.86	0.100	0.200	ug/L	2	4.00	---	72	38-120%	---	---	
4-Chloro-3-methylphenol	3.12	0.200	0.400	ug/L	2	4.00	---	78	52-120%	---	---	
2,4-Dichlorophenol	3.24	0.100	0.200	ug/L	2	4.00	---	81	47-121%	---	---	
2,4-Dimethylphenol	2.85	0.100	0.200	ug/L	2	4.00	---	71	31-124%	---	---	
2,4-Dinitrophenol	2.80	0.500	1.00	ug/L	2	4.00	---	70	23-143%	---	---	
4,6-Dinitro-2-methylphenol	2.66	0.500	1.00	ug/L	2	4.00	---	67	44-137%	---	---	
2-Methylphenol	2.68	0.0500	0.100	ug/L	2	4.00	---	67	30-120%	---	---	
3+4-Methylphenol(s)	2.49	0.0500	0.100	ug/L	2	4.00	---	62	29-120%	---	---	
2-Nitrophenol	3.06	0.200	0.400	ug/L	2	4.00	---	76	47-123%	---	---	
4-Nitrophenol	1.41	0.200	0.400	ug/L	2	4.00	---	35	10-120%	---	---	
Pentachlorophenol (PCP)	3.68	0.200	0.400	ug/L	2	4.00	---	92	35-138%	---	---	
Phenol	1.22	0.400	0.800	ug/L	2	4.00	---	31	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	3.30	0.100	0.200	ug/L	2	4.00	---	83	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.66	0.100	0.200	ug/L	2	4.00	---	91	50-121%	---	---	
2,4,5-Trichlorophenol	3.37	0.100	0.200	ug/L	2	4.00	---	84	53-123%	---	---	
2,4,6-Trichlorophenol	3.49	0.100	0.200	ug/L	2	4.00	---	87	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.54	0.400	0.800	ug/L	2	4.00	---	88	55-135%	---	---	
Butyl benzyl phthalate	3.87	0.400	0.800	ug/L	2	4.00	---	97	53-134%	---	---	
Diethylphthalate	3.31	0.400	0.800	ug/L	2	4.00	---	83	56-125%	---	---	
Dimethylphthalate	3.38	0.400	0.800	ug/L	2	4.00	---	84	45-127%	---	---	
Di-n-butylphthalate	3.61	0.400	0.800	ug/L	2	4.00	---	90	59-127%	---	---	
Di-n-octyl phthalate	4.06	0.400	0.800	ug/L	2	4.00	---	101	51-140%	---	---	
N-Nitrosodimethylamine	1.65	0.0500	0.100	ug/L	2	4.00	---	41	10-120%	---	---	
N-Nitroso-di-n-propylamine	3.42	0.0500	0.100	ug/L	2	4.00	---	85	49-120%	---	---	
N-Nitrosodiphenylamine	3.26	0.0500	0.100	ug/L	2	4.00	---	82	51-123%	---	---	
Bis(2-Chloroethoxy) methane	3.01	0.0500	0.100	ug/L	2	4.00	---	75	48-120%	---	---	
Bis(2-Chloroethyl) ether	2.94	0.0500	0.100	ug/L	2	4.00	---	73	43-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	2.73	0.0500	0.100	ug/L	2	4.00	---	68	37-130%	---	---	
Hexachlorobenzene	2.99	0.0200	0.0400	ug/L	2	4.00	---	75	53-125%	---	---	

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (1012876-BS1)			Prepared: 01/14/21 10:43		Analyzed: 01/14/21 20:21							
Hexachlorobutadiene	1.03	0.0500	0.100	ug/L	2	4.00	---	26	22-124%	---	---	Q-31
Hexachlorocyclopentadiene	0.561	0.100	0.200	ug/L	2	4.00	---	14	10-127%	---	---	
Hexachloroethane	1.03	0.0500	0.100	ug/L	2	4.00	---	26	21-120%	---	---	
2-Chloronaphthalene	2.09	0.0200	0.0400	ug/L	2	4.00	---	52	40-120%	---	---	
1,2,4-Trichlorobenzene	1.38	0.0500	0.100	ug/L	2	4.00	---	35	29-120%	---	---	
4-Bromophenyl phenyl ether	3.03	0.0500	0.100	ug/L	2	4.00	---	76	55-124%	---	---	
4-Chlorophenyl phenyl ether	2.76	0.0500	0.100	ug/L	2	4.00	---	69	53-121%	---	---	
Aniline	2.18	0.100	0.200	ug/L	2	4.00	---	54	10-120%	---	---	
4-Chloroaniline	2.63	0.0500	0.100	ug/L	2	4.00	---	66	33-120%	---	---	
2-Nitroaniline	3.39	0.400	0.800	ug/L	2	4.00	---	85	55-127%	---	---	
3-Nitroaniline	3.06	0.400	0.800	ug/L	2	4.00	---	77	41-128%	---	---	
4-Nitroaniline	2.54	0.400	0.800	ug/L	2	4.00	---	63	54-128%	---	---	
Nitrobenzene	3.02	0.200	0.400	ug/L	2	4.00	---	75	45-121%	---	---	
2,4-Dinitrotoluene	3.21	0.200	0.400	ug/L	2	4.00	---	80	57-128%	---	---	
2,6-Dinitrotoluene	3.04	0.200	0.400	ug/L	2	4.00	---	76	57-124%	---	---	
Benzoic acid	3.93	2.50	2.50	ug/L	2	8.00	---	49	10-120%	---	---	
Benzyl alcohol	3.03	0.200	0.400	ug/L	2	4.00	---	76	31-120%	---	---	
Isophorone	3.40	0.0500	0.100	ug/L	2	4.00	---	85	42-124%	---	---	
Azobenzene (1,2-DPH)	3.04	0.0500	0.100	ug/L	2	4.00	---	76	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	3.66	0.500	1.00	ug/L	2	4.00	---	92	57-136%	---	---	
3,3'-Dichlorobenzidine	8.83	1.00	2.00	ug/L	2	8.00	---	110	27-129%	---	---	
1,2-Dinitrobenzene	3.12	0.500	1.00	ug/L	2	4.00	---	78	59-120%	---	---	
1,3-Dinitrobenzene	3.16	0.500	1.00	ug/L	2	4.00	---	79	49-128%	---	---	
1,4-Dinitrobenzene	3.05	0.500	1.00	ug/L	2	4.00	---	76	72-130%	---	---	
Pyridine	1.26	0.200	0.400	ug/L	2	4.00	---	31	10-120%	---	---	
1,2-Dichlorobenzene	1.34	0.0500	0.100	ug/L	2	4.00	---	34	32-120%	---	---	
1,3-Dichlorobenzene	1.20	0.0500	0.100	ug/L	2	4.00	---	30	28-120%	---	---	
1,4-Dichlorobenzene	1.26	0.0500	0.100	ug/L	2	4.00	---	31	29-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 81 %		Limits: 44-120 %		Dilution: 2x						
2-Fluorobiphenyl (Surr)		68 %		44-120 %		"						
Phenol-d6 (Surr)		28 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		90 %		50-134 %		"						
2-Fluorophenol (Surr)		40 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		92 %		43-140 %		"						

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503-718-2323

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GSI Water Solutions

55 SW Yamhill St, Ste 300

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Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (1012876-BSD1)			Prepared: 01/14/21 10:43 Analyzed: 01/14/21 20:57					Q-19				
EPA 8270E												
Acenaphthene	2.95	0.0200	0.0400	ug/L	2	4.00	---	74	47-122%	14	30%	
Acenaphthylene	3.22	0.0200	0.0400	ug/L	2	4.00	---	80	41-130%	12	30%	
Anthracene	3.25	0.0200	0.0400	ug/L	2	4.00	---	81	57-123%	2	30%	
Benz(a)anthracene	3.36	0.0200	0.0400	ug/L	2	4.00	---	84	58-125%	0.02	30%	
Benzo(a)pyrene	3.40	0.0300	0.0600	ug/L	2	4.00	---	85	54-128%	3	30%	
Benzo(b)fluoranthene	3.52	0.0300	0.0600	ug/L	2	4.00	---	88	53-131%	2	30%	
Benzo(k)fluoranthene	3.24	0.0300	0.0600	ug/L	2	4.00	---	81	57-129%	0.2	30%	
Benzo(g,h,i)perylene	2.81	0.0200	0.0400	ug/L	2	4.00	---	70	50-134%	1	30%	
Chrysene	3.22	0.0200	0.0400	ug/L	2	4.00	---	80	59-123%	2	30%	
Dibenz(a,h)anthracene	3.23	0.0200	0.0400	ug/L	2	4.00	---	81	51-134%	2	30%	
Fluoranthene	3.40	0.0200	0.0400	ug/L	2	4.00	---	85	57-128%	0.2	30%	
Fluorene	3.14	0.0200	0.0400	ug/L	2	4.00	---	79	52-124%	8	30%	
Indeno(1,2,3-cd)pyrene	2.98	0.0200	0.0400	ug/L	2	4.00	---	75	52-134%	1	30%	
1-Methylnaphthalene	2.69	0.0400	0.0800	ug/L	2	4.00	---	67	41-120%	28	30%	
2-Methylnaphthalene	2.71	0.0400	0.0800	ug/L	2	4.00	---	68	40-121%	31	30%	Q-24
Naphthalene	2.51	0.0400	0.0800	ug/L	2	4.00	---	63	40-121%	28	30%	
Phenanthrene	3.05	0.0200	0.0400	ug/L	2	4.00	---	76	59-120%	1	30%	
Pyrene	3.34	0.0200	0.0400	ug/L	2	4.00	---	83	57-126%	2	30%	
Carbazole	3.53	0.0300	0.0600	ug/L	2	4.00	---	88	60-122%	0.7	30%	
Dibenzofuran	2.98	0.0200	0.0400	ug/L	2	4.00	---	74	53-120%	11	30%	
2-Chlorophenol	2.85	0.100	0.200	ug/L	2	4.00	---	71	38-120%	0.4	30%	
4-Chloro-3-methylphenol	3.13	0.200	0.400	ug/L	2	4.00	---	78	52-120%	0.3	30%	
2,4-Dichlorophenol	3.26	0.100	0.200	ug/L	2	4.00	---	82	47-121%	0.8	30%	
2,4-Dimethylphenol	3.05	0.100	0.200	ug/L	2	4.00	---	76	31-124%	7	30%	
2,4-Dinitrophenol	2.77	0.500	1.00	ug/L	2	4.00	---	69	23-143%	1	30%	Q-31
4,6-Dinitro-2-methylphenol	2.72	0.500	1.00	ug/L	2	4.00	---	68	44-137%	2	30%	
2-Methylphenol	2.68	0.0500	0.100	ug/L	2	4.00	---	67	30-120%	0.05	30%	
3+4-Methylphenol(s)	2.51	0.0500	0.100	ug/L	2	4.00	---	63	29-120%	0.9	30%	
2-Nitrophenol	3.15	0.200	0.400	ug/L	2	4.00	---	79	47-123%	3	30%	
4-Nitrophenol	1.44	0.200	0.400	ug/L	2	4.00	---	36	10-120%	2	30%	
Pentachlorophenol (PCP)	3.69	0.200	0.400	ug/L	2	4.00	---	92	35-138%	0.4	30%	
Phenol	1.27	0.400	0.800	ug/L	2	4.00	---	32	10-120%	3	30%	
2,3,4,6-Tetrachlorophenol	3.33	0.100	0.200	ug/L	2	4.00	---	83	50-128%	1	30%	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (1012876-BSD1)						Prepared: 01/14/21 10:43 Analyzed: 01/14/21 20:57						Q-19
2,3,5,6-Tetrachlorophenol	3.72	0.100	0.200	ug/L	2	4.00	---	93	50-121%	2	30%	
2,4,5-Trichlorophenol	3.37	0.100	0.200	ug/L	2	4.00	---	84	53-123%	0.1	30%	
2,4,6-Trichlorophenol	3.51	0.100	0.200	ug/L	2	4.00	---	88	50-125%	0.8	30%	
Bis(2-ethylhexyl)phthalate	3.51	0.400	0.800	ug/L	2	4.00	---	88	55-135%	0.7	30%	
Butyl benzyl phthalate	3.80	0.400	0.800	ug/L	2	4.00	---	95	53-134%	2	30%	
Diethylphthalate	3.32	0.400	0.800	ug/L	2	4.00	---	83	56-125%	0.2	30%	
Dimethylphthalate	3.38	0.400	0.800	ug/L	2	4.00	---	84	45-127%	0.005	30%	
Di-n-butylphthalate	3.67	0.400	0.800	ug/L	2	4.00	---	92	59-127%	2	30%	
Di-n-octyl phthalate	4.17	0.400	0.800	ug/L	2	4.00	---	104	51-140%	3	30%	
N-Nitrosodimethylamine	1.71	0.0500	0.100	ug/L	2	4.00	---	43	10-120%	4	30%	
N-Nitroso-di-n-propylamine	3.42	0.0500	0.100	ug/L	2	4.00	---	85	49-120%	0.04	30%	
N-Nitrosodiphenylamine	3.31	0.0500	0.100	ug/L	2	4.00	---	83	51-123%	1	30%	
Bis(2-Chloroethoxy) methane	3.05	0.0500	0.100	ug/L	2	4.00	---	76	48-120%	2	30%	
Bis(2-Chloroethyl) ether	2.98	0.0500	0.100	ug/L	2	4.00	---	75	43-120%	2	30%	
2,2'-Oxybis(1-Chloropropane)	2.90	0.0500	0.100	ug/L	2	4.00	---	72	37-130%	6	30%	
Hexachlorobenzene	3.06	0.0200	0.0400	ug/L	2	4.00	---	76	53-125%	2	30%	
Hexachlorobutadiene	2.04	0.0500	0.100	ug/L	2	4.00	---	51	22-124%	66	30%	Q-24
Hexachlorocyclopentadiene	1.30	0.100	0.200	ug/L	2	4.00	---	32	10-127%	79	30%	Q-24
Hexachloroethane	1.97	0.0500	0.100	ug/L	2	4.00	---	49	21-120%	62	30%	Q-24
2-Chloronaphthalene	2.68	0.0200	0.0400	ug/L	2	4.00	---	67	40-120%	25	30%	
1,2,4-Trichlorobenzene	2.22	0.0500	0.100	ug/L	2	4.00	---	55	29-120%	46	30%	Q-24
4-Bromophenyl phenyl ether	3.22	0.0500	0.100	ug/L	2	4.00	---	81	55-124%	6	30%	
4-Chlorophenyl phenyl ether	3.06	0.0500	0.100	ug/L	2	4.00	---	76	53-121%	10	30%	
Aniline	2.48	0.100	0.200	ug/L	2	4.00	---	62	10-120%	13	30%	
4-Chloroaniline	2.80	0.0500	0.100	ug/L	2	4.00	---	70	33-120%	6	30%	
2-Nitroaniline	3.39	0.400	0.800	ug/L	2	4.00	---	85	55-127%	0.2	30%	
3-Nitroaniline	3.08	0.400	0.800	ug/L	2	4.00	---	77	41-128%	0.6	30%	
4-Nitroaniline	2.65	0.400	0.800	ug/L	2	4.00	---	66	54-128%	4	30%	
Nitrobenzene	3.13	0.200	0.400	ug/L	2	4.00	---	78	45-121%	4	30%	
2,4-Dinitrotoluene	3.22	0.200	0.400	ug/L	2	4.00	---	81	57-128%	0.4	30%	
2,6-Dinitrotoluene	3.10	0.200	0.400	ug/L	2	4.00	---	77	57-124%	2	30%	
Benzoic acid	3.51	2.50	2.50	ug/L	2	8.00	---	44	10-120%	11	30%	Q-31
Benzyl alcohol	3.09	0.200	0.400	ug/L	2	4.00	---	77	31-120%	2	30%	
Isophorone	3.46	0.0500	0.100	ug/L	2	4.00	---	86	42-124%	2	30%	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (1012876-BSD1)					Prepared: 01/14/21 10:43 Analyzed: 01/14/21 20:57						Q-19	
Azobenzene (1,2-DPH)	3.10	0.0500	0.100	ug/L	2	4.00	---	78	61-120%	2	30%	
Bis(2-Ethylhexyl) adipate	3.71	0.500	1.00	ug/L	2	4.00	---	93	57-136%	1	30%	
3,3'-Dichlorobenzidine	9.27	1.00	2.00	ug/L	2	8.00	---	116	27-129%	5	30%	
1,2-Dinitrobenzene	3.14	0.500	1.00	ug/L	2	4.00	---	78	59-120%	0.4	30%	
1,3-Dinitrobenzene	3.19	0.500	1.00	ug/L	2	4.00	---	80	49-128%	1	30%	
1,4-Dinitrobenzene	3.11	0.500	1.00	ug/L	2	4.00	---	78	72-130%	2	30%	
Pyridine	1.20	0.200	0.400	ug/L	2	4.00	---	30	10-120%	5	30%	
1,2-Dichlorobenzene	2.14	0.0500	0.100	ug/L	2	4.00	---	54	32-120%	46	30%	Q-24
1,3-Dichlorobenzene	2.01	0.0500	0.100	ug/L	2	4.00	---	50	28-120%	50	30%	Q-24
1,4-Dichlorobenzene	2.04	0.0500	0.100	ug/L	2	4.00	---	51	29-120%	48	30%	Q-24
Surr: Nitrobenzene-d5 (Surr)												
			Recovery:	82 %	Limits:	44-120 %	Dilution:	2x				
2-Fluorobiphenyl (Surr)				72 %		44-120 %		"				
Phenol-d6 (Surr)				29 %		10-133 %		"				
p-Terphenyl-d14 (Surr)				89 %		50-134 %		"				
2-Fluorophenol (Surr)				41 %		19-120 %		"				
2,4,6-Tribromophenol (Surr)				93 %		43-140 %		"				

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1012988-BLK1)			Prepared: 01/18/21 10:43		Analyzed: 01/18/21 15:50							
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	Q-30
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	Q-30
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	Q-30
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1012988-BLK1)			Prepared: 01/18/21 10:43		Analyzed: 01/18/21 15:50							
2,3,5,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	Q-30
Hexachlorocyclopentadiene	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	Q-30
2-Chloronaphthalene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	Q-30
4-Bromophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	1.14	2.27	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Isophorone	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1012988-BLK1)			Prepared: 01/18/21 10:43		Analyzed: 01/18/21 15:50							
Azobenzene (1,2-DPH)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1	---	---	---	---	---	---	Q-52
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	Q-30
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	Q-30
1,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	Q-30
Surr: Nitrobenzene-d5 (Surr)			Recovery: 74 %		Limits: 44-120 %		Dilution: 1x					
2-Fluorobiphenyl (Surr)			55 %		44-120 %		"					
Phenol-d6 (Surr)			28 %		10-133 %		"					
p-Terphenyl-d14 (Surr)			83 %		50-134 %		"					
2-Fluorophenol (Surr)			40 %		19-120 %		"					
2,4,6-Tribromophenol (Surr)			80 %		43-140 %		"					
LCS (1012988-BS1)			Prepared: 01/18/21 10:43		Analyzed: 01/18/21 16:26							
EPA 8270E												
Acenaphthene	2.10	0.0200	0.0400	ug/L	2	4.00	---	53	47-122%	---	---	
Acenaphthylene	2.45	0.0200	0.0400	ug/L	2	4.00	---	61	41-130%	---	---	
Anthracene	3.11	0.0200	0.0400	ug/L	2	4.00	---	78	57-123%	---	---	
Benz(a)anthracene	3.31	0.0200	0.0400	ug/L	2	4.00	---	83	58-125%	---	---	
Benzo(a)pyrene	3.31	0.0300	0.0600	ug/L	2	4.00	---	83	54-128%	---	---	
Benzo(b)fluoranthene	3.34	0.0300	0.0600	ug/L	2	4.00	---	83	53-131%	---	---	
Benzo(k)fluoranthene	3.16	0.0300	0.0600	ug/L	2	4.00	---	79	57-129%	---	---	
Benzo(g,h,i)perylene	3.57	0.0200	0.0400	ug/L	2	4.00	---	89	50-134%	---	---	
Chrysene	3.19	0.0200	0.0400	ug/L	2	4.00	---	80	59-123%	---	---	
Dibenz(a,h)anthracene	3.19	0.0200	0.0400	ug/L	2	4.00	---	80	51-134%	---	---	
Fluoranthene	3.37	0.0200	0.0400	ug/L	2	4.00	---	84	57-128%	---	---	
Fluorene	2.64	0.0200	0.0400	ug/L	2	4.00	---	66	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.22	0.0200	0.0400	ug/L	2	4.00	---	80	52-134%	---	---	
1-Methylnaphthalene	1.55	0.0400	0.0800	ug/L	2	4.00	---	39	41-120%	---	---	Q-30
2-Methylnaphthalene	1.50	0.0400	0.0800	ug/L	2	4.00	---	38	40-121%	---	---	Q-30

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (1012988-BS1)			Prepared: 01/18/21 10:43		Analyzed: 01/18/21 16:26							
Naphthalene	1.48	0.0400	0.0800	ug/L	2	4.00	---	37	40-121%	---	---	Q-30
Phenanthrene	2.93	0.0200	0.0400	ug/L	2	4.00	---	73	59-120%	---	---	
Pyrene	3.32	0.0200	0.0400	ug/L	2	4.00	---	83	57-126%	---	---	
Carbazole	3.44	0.0300	0.0600	ug/L	2	4.00	---	86	60-122%	---	---	
Dibenzofuran	2.37	0.0200	0.0400	ug/L	2	4.00	---	59	53-120%	---	---	
2-Chlorophenol	2.67	0.100	0.200	ug/L	2	4.00	---	67	38-120%	---	---	
4-Chloro-3-methylphenol	3.06	0.200	0.400	ug/L	2	4.00	---	77	52-120%	---	---	
2,4-Dichlorophenol	3.13	0.100	0.200	ug/L	2	4.00	---	78	47-121%	---	---	
2,4-Dimethylphenol	3.22	0.100	0.200	ug/L	2	4.00	---	81	31-124%	---	---	
2,4-Dinitrophenol	2.85	0.500	1.00	ug/L	2	4.00	---	71	23-143%	---	---	
4,6-Dinitro-2-methylphenol	2.85	0.500	1.00	ug/L	2	4.00	---	71	44-137%	---	---	
2-Methylphenol	2.63	0.0500	0.100	ug/L	2	4.00	---	66	30-120%	---	---	
3+4-Methylphenol(s)	2.48	0.0500	0.100	ug/L	2	4.00	---	62	29-120%	---	---	
2-Nitrophenol	2.92	0.200	0.400	ug/L	2	4.00	---	73	47-123%	---	---	
4-Nitrophenol	1.42	0.200	0.400	ug/L	2	4.00	---	35	10-120%	---	---	
Pentachlorophenol (PCP)	3.46	0.200	0.400	ug/L	2	4.00	---	87	35-138%	---	---	
Phenol	1.23	0.400	0.800	ug/L	2	4.00	---	31	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	3.25	0.100	0.200	ug/L	2	4.00	---	81	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.59	0.100	0.200	ug/L	2	4.00	---	90	50-121%	---	---	
2,4,5-Trichlorophenol	3.33	0.100	0.200	ug/L	2	4.00	---	83	53-123%	---	---	
2,4,6-Trichlorophenol	3.38	0.100	0.200	ug/L	2	4.00	---	84	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.35	0.400	0.800	ug/L	2	4.00	---	84	55-135%	---	---	
Butyl benzyl phthalate	3.71	0.400	0.800	ug/L	2	4.00	---	93	53-134%	---	---	
Diethylphthalate	3.25	0.400	0.800	ug/L	2	4.00	---	81	56-125%	---	---	
Dimethylphthalate	3.26	0.400	0.800	ug/L	2	4.00	---	81	45-127%	---	---	
Di-n-butylphthalate	3.53	0.400	0.800	ug/L	2	4.00	---	88	59-127%	---	---	
Di-n-octyl phthalate	3.72	0.400	0.800	ug/L	2	4.00	---	93	51-140%	---	---	
N-Nitrosodimethylamine	1.71	0.0500	0.100	ug/L	2	4.00	---	43	10-120%	---	---	
N-Nitroso-di-n-propylamine	3.20	0.0500	0.100	ug/L	2	4.00	---	80	49-120%	---	---	
N-Nitrosodiphenylamine	3.18	0.0500	0.100	ug/L	2	4.00	---	79	51-123%	---	---	
Bis(2-Chloroethoxy) methane	2.89	0.0500	0.100	ug/L	2	4.00	---	72	48-120%	---	---	
Bis(2-Chloroethyl) ether	2.85	0.0500	0.100	ug/L	2	4.00	---	71	43-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	2.36	0.0500	0.100	ug/L	2	4.00	---	59	37-130%	---	---	
Hexachlorobenzene	2.89	0.0200	0.0400	ug/L	2	4.00	---	72	53-125%	---	---	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (1012988-BS1)			Prepared: 01/18/21 10:43		Analyzed: 01/18/21 16:26							
Hexachlorobutadiene	0.690	0.0500	0.100	ug/L	2	4.00	---	17	22-124%	---	---	Q-30
Hexachlorocyclopentadiene	0.674	0.100	0.200	ug/L	2	4.00	---	17	10-127%	---	---	
Hexachloroethane	0.727	0.0500	0.100	ug/L	2	4.00	---	18	21-120%	---	---	Q-30
2-Chloronaphthalene	1.60	0.0200	0.0400	ug/L	2	4.00	---	40	40-120%	---	---	
1,2,4-Trichlorobenzene	1.00	0.0500	0.100	ug/L	2	4.00	---	25	29-120%	---	---	Q-30
4-Bromophenyl phenyl ether	2.78	0.0500	0.100	ug/L	2	4.00	---	70	55-124%	---	---	
4-Chlorophenyl phenyl ether	2.35	0.0500	0.100	ug/L	2	4.00	---	59	53-121%	---	---	
Aniline	2.23	0.100	0.200	ug/L	2	4.00	---	56	10-120%	---	---	
4-Chloroaniline	2.55	0.0500	0.100	ug/L	2	4.00	---	64	33-120%	---	---	
2-Nitroaniline	3.23	0.400	0.800	ug/L	2	4.00	---	81	55-127%	---	---	
3-Nitroaniline	2.89	0.400	0.800	ug/L	2	4.00	---	72	41-128%	---	---	
4-Nitroaniline	2.32	0.400	0.800	ug/L	2	4.00	---	58	54-128%	---	---	
Nitrobenzene	2.76	0.200	0.400	ug/L	2	4.00	---	69	45-121%	---	---	
2,4-Dinitrotoluene	3.18	0.200	0.400	ug/L	2	4.00	---	79	57-128%	---	---	
2,6-Dinitrotoluene	2.98	0.200	0.400	ug/L	2	4.00	---	74	57-124%	---	---	
Benzoic acid	3.74	2.50	2.50	ug/L	2	8.00	---	47	10-120%	---	---	
Benzyl alcohol	3.05	0.200	0.400	ug/L	2	4.00	---	76	31-120%	---	---	
Isophorone	3.27	0.0500	0.100	ug/L	2	4.00	---	82	42-124%	---	---	
Azobenzene (1,2-DPH)	2.80	0.0500	0.100	ug/L	2	4.00	---	70	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	3.47	0.500	1.00	ug/L	2	4.00	---	87	57-136%	---	---	
3,3'-Dichlorobenzidine	7.01	1.00	2.00	ug/L	2	8.00	---	88	27-129%	---	---	
1,2-Dinitrobenzene	3.04	0.500	1.00	ug/L	2	4.00	---	76	59-120%	---	---	
1,3-Dinitrobenzene	3.08	0.500	1.00	ug/L	2	4.00	---	77	49-128%	---	---	
1,4-Dinitrobenzene	3.03	0.500	1.00	ug/L	2	4.00	---	76	72-130%	---	---	
Pyridine	1.32	0.200	0.400	ug/L	2	4.00	---	33	10-120%	---	---	
1,2-Dichlorobenzene	0.973	0.0500	0.100	ug/L	2	4.00	---	24	32-120%	---	---	Q-30
1,3-Dichlorobenzene	0.858	0.0500	0.100	ug/L	2	4.00	---	21	28-120%	---	---	Q-30
1,4-Dichlorobenzene	0.904	0.0500	0.100	ug/L	2	4.00	---	23	29-120%	---	---	Q-30
Surr: Nitrobenzene-d5 (Surr)		Recovery: 73 %		Limits: 44-120 %		Dilution: 2x						
2-Fluorobiphenyl (Surr)		59 %		44-120 %		"						
Phenol-d6 (Surr)		28 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		83 %		50-134 %		"						
2-Fluorophenol (Surr)		39 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		87 %		43-140 %		"						

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base Neutral)							Water					
LCS Dup (1012988-BSD1)				Prepared: 01/18/21 10:43				Analyzed: 01/18/21 17:01				Q-19
EPA 8270E												
Acenaphthene	2.46	0.0200	0.0400	ug/L	2	4.00	---	61	47-122%	16	30%	
Acenaphthylene	2.77	0.0200	0.0400	ug/L	2	4.00	---	69	41-130%	12	30%	
Anthracene	3.07	0.0200	0.0400	ug/L	2	4.00	---	77	57-123%	1	30%	
Benz(a)anthracene	3.22	0.0200	0.0400	ug/L	2	4.00	---	81	58-125%	2	30%	
Benzo(a)pyrene	3.30	0.0300	0.0600	ug/L	2	4.00	---	83	54-128%	0.07	30%	
Benzo(b)fluoranthene	3.29	0.0300	0.0600	ug/L	2	4.00	---	82	53-131%	1	30%	
Benzo(k)fluoranthene	3.20	0.0300	0.0600	ug/L	2	4.00	---	80	57-129%	1	30%	
Benzo(g,h,i)perylene	3.46	0.0200	0.0400	ug/L	2	4.00	---	87	50-134%	3	30%	
Chrysene	3.10	0.0200	0.0400	ug/L	2	4.00	---	77	59-123%	3	30%	
Dibenz(a,h)anthracene	3.16	0.0200	0.0400	ug/L	2	4.00	---	79	51-134%	1	30%	
Fluoranthene	3.26	0.0200	0.0400	ug/L	2	4.00	---	82	57-128%	3	30%	
Fluorene	2.84	0.0200	0.0400	ug/L	2	4.00	---	71	52-124%	8	30%	
Indeno(1,2,3-cd)pyrene	3.16	0.0200	0.0400	ug/L	2	4.00	---	79	52-134%	2	30%	
1-Methylnaphthalene	2.04	0.0400	0.0800	ug/L	2	4.00	---	51	41-120%	27	30%	
2-Methylnaphthalene	2.02	0.0400	0.0800	ug/L	2	4.00	---	50	40-121%	29	30%	
Naphthalene	1.92	0.0400	0.0800	ug/L	2	4.00	---	48	40-121%	26	30%	
Phenanthrene	2.87	0.0200	0.0400	ug/L	2	4.00	---	72	59-120%	2	30%	
Pyrene	3.20	0.0200	0.0400	ug/L	2	4.00	---	80	57-126%	4	30%	
Carbazole	3.35	0.0300	0.0600	ug/L	2	4.00	---	84	60-122%	3	30%	
Dibenzofuran	2.66	0.0200	0.0400	ug/L	2	4.00	---	66	53-120%	11	30%	
2-Chlorophenol	2.67	0.100	0.200	ug/L	2	4.00	---	67	38-120%	0.07	30%	
4-Chloro-3-methylphenol	3.07	0.200	0.400	ug/L	2	4.00	---	77	52-120%	0.3	30%	
2,4-Dichlorophenol	3.11	0.100	0.200	ug/L	2	4.00	---	78	47-121%	0.7	30%	
2,4-Dimethylphenol	2.97	0.100	0.200	ug/L	2	4.00	---	74	31-124%	8	30%	
2,4-Dinitrophenol	2.74	0.500	1.00	ug/L	2	4.00	---	68	23-143%	4	30%	
4,6-Dinitro-2-methylphenol	2.76	0.500	1.00	ug/L	2	4.00	---	69	44-137%	3	30%	
2-Methylphenol	2.58	0.0500	0.100	ug/L	2	4.00	---	64	30-120%	2	30%	
3+4-Methylphenol(s)	2.41	0.0500	0.100	ug/L	2	4.00	---	60	29-120%	3	30%	
2-Nitrophenol	2.93	0.200	0.400	ug/L	2	4.00	---	73	47-123%	0.2	30%	
4-Nitrophenol	1.42	0.200	0.400	ug/L	2	4.00	---	35	10-120%	0.1	30%	
Pentachlorophenol (PCP)	3.29	0.200	0.400	ug/L	2	4.00	---	82	35-138%	5	30%	
Phenol	1.21	0.400	0.800	ug/L	2	4.00	---	30	10-120%	2	30%	
2,3,4,6-Tetrachlorophenol	3.23	0.100	0.200	ug/L	2	4.00	---	81	50-128%	0.4	30%	

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ANALYTICAL REPORT

AMENDED REPORT

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (1012988-BSD1)						Prepared: 01/18/21 10:43 Analyzed: 01/18/21 17:01						Q-19
2,3,5,6-Tetrachlorophenol	3.50	0.100	0.200	ug/L	2	4.00	---	88	50-121%	2	30%	
2,4,5-Trichlorophenol	3.23	0.100	0.200	ug/L	2	4.00	---	81	53-123%	3	30%	
2,4,6-Trichlorophenol	3.31	0.100	0.200	ug/L	2	4.00	---	83	50-125%	2	30%	
Bis(2-ethylhexyl)phthalate	3.31	0.400	0.800	ug/L	2	4.00	---	83	55-135%	1	30%	
Butyl benzyl phthalate	3.64	0.400	0.800	ug/L	2	4.00	---	91	53-134%	2	30%	
Diethylphthalate	3.26	0.400	0.800	ug/L	2	4.00	---	81	56-125%	0.3	30%	
Dimethylphthalate	3.27	0.400	0.800	ug/L	2	4.00	---	82	45-127%	0.4	30%	
Di-n-butylphthalate	3.48	0.400	0.800	ug/L	2	4.00	---	87	59-127%	1	30%	
Di-n-octyl phthalate	3.72	0.400	0.800	ug/L	2	4.00	---	93	51-140%	0.03	30%	
N-Nitrosodimethylamine	1.66	0.0500	0.100	ug/L	2	4.00	---	41	10-120%	3	30%	
N-Nitroso-di-n-propylamine	3.19	0.0500	0.100	ug/L	2	4.00	---	80	49-120%	0.4	30%	
N-Nitrosodiphenylamine	3.11	0.0500	0.100	ug/L	2	4.00	---	78	51-123%	2	30%	
Bis(2-Chloroethoxy) methane	2.88	0.0500	0.100	ug/L	2	4.00	---	72	48-120%	0.08	30%	
Bis(2-Chloroethyl) ether	2.81	0.0500	0.100	ug/L	2	4.00	---	70	43-120%	1	30%	
2,2'-Oxybis(1-Chloropropane)	2.51	0.0500	0.100	ug/L	2	4.00	---	63	37-130%	6	30%	
Hexachlorobenzene	2.82	0.0200	0.0400	ug/L	2	4.00	---	70	53-125%	3	30%	
Hexachlorobutadiene	1.17	0.0500	0.100	ug/L	2	4.00	---	29	22-124%	51	30%	Q-01
Hexachlorocyclopentadiene	1.20	0.100	0.200	ug/L	2	4.00	---	30	10-127%	56	30%	Q-01
Hexachloroethane	1.17	0.0500	0.100	ug/L	2	4.00	---	29	21-120%	47	30%	Q-01
2-Chloronaphthalene	2.07	0.0200	0.0400	ug/L	2	4.00	---	52	40-120%	26	30%	
1,2,4-Trichlorobenzene	1.49	0.0500	0.100	ug/L	2	4.00	---	37	29-120%	39	30%	Q-01
4-Bromophenyl phenyl ether	2.93	0.0500	0.100	ug/L	2	4.00	---	73	55-124%	5	30%	
4-Chlorophenyl phenyl ether	2.73	0.0500	0.100	ug/L	2	4.00	---	68	53-121%	15	30%	
Aniline	2.19	0.100	0.200	ug/L	2	4.00	---	55	10-120%	2	30%	
4-Chloroaniline	2.54	0.0500	0.100	ug/L	2	4.00	---	64	33-120%	0.4	30%	
2-Nitroaniline	3.22	0.400	0.800	ug/L	2	4.00	---	81	55-127%	0.1	30%	
3-Nitroaniline	2.91	0.400	0.800	ug/L	2	4.00	---	73	41-128%	0.5	30%	
4-Nitroaniline	2.27	0.400	0.800	ug/L	2	4.00	---	57	54-128%	2	30%	
Nitrobenzene	2.77	0.200	0.400	ug/L	2	4.00	---	69	45-121%	0.4	30%	
2,4-Dinitrotoluene	3.17	0.200	0.400	ug/L	2	4.00	---	79	57-128%	0.2	30%	
2,6-Dinitrotoluene	2.95	0.200	0.400	ug/L	2	4.00	---	74	57-124%	0.9	30%	
Benzoic acid	3.71	2.50	2.50	ug/L	2	8.00	---	46	10-120%	1	30%	
Benzyl alcohol	3.03	0.200	0.400	ug/L	2	4.00	---	76	31-120%	0.7	30%	
Isophorone	3.26	0.0500	0.100	ug/L	2	4.00	---	81	42-124%	0.5	30%	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base Neutral)							Water					
LCS Dup (1012988-BSD1)					Prepared: 01/18/21 10:43 Analyzed: 01/18/21 17:01						Q-19	
Azobenzene (1,2-DPH)	2.84	0.0500	0.100	ug/L	2	4.00	---	71	61-120%	2	30%	
Bis(2-Ethylhexyl) adipate	3.37	0.500	1.00	ug/L	2	4.00	---	84	57-136%	3	30%	
3,3'-Dichlorobenzidine	6.80	1.00	2.00	ug/L	2	8.00	---	85	27-129%	3	30%	
1,2-Dinitrobenzene	3.05	0.500	1.00	ug/L	2	4.00	---	76	59-120%	0.2	30%	
1,3-Dinitrobenzene	3.09	0.500	1.00	ug/L	2	4.00	---	77	49-128%	0.2	30%	
1,4-Dinitrobenzene	3.01	0.500	1.00	ug/L	2	4.00	---	75	72-130%	0.7	30%	
Pyridine	1.25	0.200	0.400	ug/L	2	4.00	---	31	10-120%	6	30%	
1,2-Dichlorobenzene	1.40	0.0500	0.100	ug/L	2	4.00	---	35	32-120%	36	30%	Q-01
1,3-Dichlorobenzene	1.26	0.0500	0.100	ug/L	2	4.00	---	31	28-120%	38	30%	Q-01
1,4-Dichlorobenzene	1.32	0.0500	0.100	ug/L	2	4.00	---	33	29-120%	37	30%	Q-01
Surr: Nitrobenzene-d5 (Surr)												
			Recovery:	74 %	Limits:	44-120 %	Dilution:	2x				
2-Fluorobiphenyl (Surr)				62 %		44-120 %		"				
Phenol-d6 (Surr)				27 %		10-133 %		"				
p-Terphenyl-d14 (Surr)				82 %		50-134 %		"				
2-Fluorophenol (Surr)				38 %		19-120 %		"				
2,4,6-Tribromophenol (Surr)				85 %		43-140 %		"				

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1013031-BLK1)			Prepared: 01/19/21 11:11		Analyzed: 01/19/21 20:53							
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1013031-BLK1)			Prepared: 01/19/21 11:11		Analyzed: 01/19/21 20:53							
2,3,5,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	1.14	2.27	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Isophorone	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (1013031-BLK1)			Prepared: 01/19/21 11:11		Analyzed: 01/19/21 20:53							
Azobenzene (1,2-DPH)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery: 77 %	Limits: 44-120 %		Dilution: 1x						
2-Fluorobiphenyl (Surr)			63 %	44-120 %		"						
Phenol-d6 (Surr)			25 %	10-133 %		"						
p-Terphenyl-d14 (Surr)			84 %	50-134 %		"						
2-Fluorophenol (Surr)			39 %	19-120 %		"						
2,4,6-Tribromophenol (Surr)			83 %	43-140 %		"						
LCS (1013031-BS1)			Prepared: 01/19/21 11:11		Analyzed: 01/19/21 21:27							
EPA 8270E												
Acenaphthene	2.66	0.0200	0.0400	ug/L	2	4.00	---	66	47-122%	---	---	
Acenaphthylene	2.97	0.0200	0.0400	ug/L	2	4.00	---	74	41-130%	---	---	
Anthracene	3.30	0.0200	0.0400	ug/L	2	4.00	---	82	57-123%	---	---	
Benz(a)anthracene	3.42	0.0200	0.0400	ug/L	2	4.00	---	85	58-125%	---	---	
Benzo(a)pyrene	3.45	0.0300	0.0600	ug/L	2	4.00	---	86	54-128%	---	---	
Benzo(b)fluoranthene	3.51	0.0300	0.0600	ug/L	2	4.00	---	88	53-131%	---	---	
Benzo(k)fluoranthene	3.30	0.0300	0.0600	ug/L	2	4.00	---	83	57-129%	---	---	
Benzo(g,h,i)perylene	3.61	0.0200	0.0400	ug/L	2	4.00	---	90	50-134%	---	---	
Chrysene	3.37	0.0200	0.0400	ug/L	2	4.00	---	84	59-123%	---	---	
Dibenz(a,h)anthracene	3.35	0.0200	0.0400	ug/L	2	4.00	---	84	51-134%	---	---	
Fluoranthene	3.55	0.0200	0.0400	ug/L	2	4.00	---	89	57-128%	---	---	
Fluorene	3.01	0.0200	0.0400	ug/L	2	4.00	---	75	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.37	0.0200	0.0400	ug/L	2	4.00	---	84	52-134%	---	---	
1-Methylnaphthalene	2.16	0.0400	0.0800	ug/L	2	4.00	---	54	41-120%	---	---	
2-Methylnaphthalene	2.12	0.0400	0.0800	ug/L	2	4.00	---	53	40-121%	---	---	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (1013031-BS1)			Prepared: 01/19/21 11:11		Analyzed: 01/19/21 21:27							
Naphthalene	2.01	0.0400	0.0800	ug/L	2	4.00	---	50	40-121%	---	---	Q-31
Phenanthrene	3.14	0.0200	0.0400	ug/L	2	4.00	---	78	59-120%	---	---	
Pyrene	3.43	0.0200	0.0400	ug/L	2	4.00	---	86	57-126%	---	---	
Carbazole	3.61	0.0300	0.0600	ug/L	2	4.00	---	90	60-122%	---	---	
Dibenzofuran	2.80	0.0200	0.0400	ug/L	2	4.00	---	70	53-120%	---	---	
2-Chlorophenol	2.91	0.100	0.200	ug/L	2	4.00	---	73	38-120%	---	---	
4-Chloro-3-methylphenol	3.21	0.200	0.400	ug/L	2	4.00	---	80	52-120%	---	---	
2,4-Dichlorophenol	3.29	0.100	0.200	ug/L	2	4.00	---	82	47-121%	---	---	
2,4-Dimethylphenol	3.40	0.100	0.200	ug/L	2	4.00	---	85	31-124%	---	---	
2,4-Dinitrophenol	3.29	0.500	1.00	ug/L	2	4.00	---	82	23-143%	---	---	
4,6-Dinitro-2-methylphenol	3.11	0.500	1.00	ug/L	2	4.00	---	78	44-137%	---	---	
2-Methylphenol	2.76	0.0500	0.100	ug/L	2	4.00	---	69	30-120%	---	---	
3+4-Methylphenol(s)	2.56	0.0500	0.100	ug/L	2	4.00	---	64	29-120%	---	---	
2-Nitrophenol	3.10	0.200	0.400	ug/L	2	4.00	---	78	47-123%	---	---	
4-Nitrophenol	1.42	0.200	0.400	ug/L	2	4.00	---	36	10-120%	---	---	
Pentachlorophenol (PCP)	3.54	0.200	0.400	ug/L	2	4.00	---	88	35-138%	---	---	
Phenol	1.27	0.400	0.800	ug/L	2	4.00	---	32	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	3.39	0.100	0.200	ug/L	2	4.00	---	85	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.67	0.100	0.200	ug/L	2	4.00	---	92	50-121%	---	---	
2,4,5-Trichlorophenol	3.46	0.100	0.200	ug/L	2	4.00	---	86	53-123%	---	---	
2,4,6-Trichlorophenol	3.52	0.100	0.200	ug/L	2	4.00	---	88	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.57	0.400	0.800	ug/L	2	4.00	---	89	55-135%	---	---	
Butyl benzyl phthalate	3.85	0.400	0.800	ug/L	2	4.00	---	96	53-134%	---	---	
Diethylphthalate	3.38	0.400	0.800	ug/L	2	4.00	---	84	56-125%	---	---	
Dimethylphthalate	3.44	0.400	0.800	ug/L	2	4.00	---	86	45-127%	---	---	
Di-n-butylphthalate	3.77	0.400	0.800	ug/L	2	4.00	---	94	59-127%	---	---	
Di-n-octyl phthalate	3.97	0.400	0.800	ug/L	2	4.00	---	99	51-140%	---	---	
N-Nitrosodimethylamine	1.79	0.0500	0.100	ug/L	2	4.00	---	45	10-120%	---	---	
N-Nitroso-di-n-propylamine	3.33	0.0500	0.100	ug/L	2	4.00	---	83	49-120%	---	---	
N-Nitrosodiphenylamine	3.34	0.0500	0.100	ug/L	2	4.00	---	84	51-123%	---	---	
Bis(2-Chloroethoxy) methane	3.00	0.0500	0.100	ug/L	2	4.00	---	75	48-120%	---	---	
Bis(2-Chloroethyl) ether	2.93	0.0500	0.100	ug/L	2	4.00	---	73	43-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	2.71	0.0500	0.100	ug/L	2	4.00	---	68	37-130%	---	---	
Hexachlorobenzene	3.15	0.0200	0.0400	ug/L	2	4.00	---	79	53-125%	---	---	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (1013031-BS1)			Prepared: 01/19/21 11:11		Analyzed: 01/19/21 21:27							
Hexachlorobutadiene	1.23	0.0500	0.100	ug/L	2	4.00	---	31	22-124%	---	---	Q-31
Hexachlorocyclopentadiene	0.978	0.100	0.200	ug/L	2	4.00	---	24	10-127%	---	---	
Hexachloroethane	1.20	0.0500	0.100	ug/L	2	4.00	---	30	21-120%	---	---	
2-Chloronaphthalene	2.23	0.0200	0.0400	ug/L	2	4.00	---	56	40-120%	---	---	
1,2,4-Trichlorobenzene	1.54	0.0500	0.100	ug/L	2	4.00	---	39	29-120%	---	---	
4-Bromophenyl phenyl ether	3.21	0.0500	0.100	ug/L	2	4.00	---	80	55-124%	---	---	
4-Chlorophenyl phenyl ether	2.88	0.0500	0.100	ug/L	2	4.00	---	72	53-121%	---	---	
Aniline	2.25	0.100	0.200	ug/L	2	4.00	---	56	10-120%	---	---	
4-Chloroaniline	2.66	0.0500	0.100	ug/L	2	4.00	---	66	33-120%	---	---	
2-Nitroaniline	3.43	0.400	0.800	ug/L	2	4.00	---	86	55-127%	---	---	
3-Nitroaniline	2.96	0.400	0.800	ug/L	2	4.00	---	74	41-128%	---	---	
4-Nitroaniline	2.26	0.400	0.800	ug/L	2	4.00	---	57	54-128%	---	---	
Nitrobenzene	3.02	0.200	0.400	ug/L	2	4.00	---	75	45-121%	---	---	
2,4-Dinitrotoluene	3.25	0.200	0.400	ug/L	2	4.00	---	81	57-128%	---	---	
2,6-Dinitrotoluene	3.14	0.200	0.400	ug/L	2	4.00	---	78	57-124%	---	---	
Benzoic acid	3.90	2.50	2.50	ug/L	2	8.00	---	49	10-120%	---	---	
Benzyl alcohol	3.10	0.200	0.400	ug/L	2	4.00	---	78	31-120%	---	---	
Isophorone	3.41	0.0500	0.100	ug/L	2	4.00	---	85	42-124%	---	---	
Azobenzene (1,2-DPH)	3.08	0.0500	0.100	ug/L	2	4.00	---	77	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	3.70	0.500	1.00	ug/L	2	4.00	---	93	57-136%	---	---	
3,3'-Dichlorobenzidine	7.05	1.00	2.00	ug/L	2	8.00	---	88	27-129%	---	---	
1,2-Dinitrobenzene	3.13	0.500	1.00	ug/L	2	4.00	---	78	59-120%	---	---	
1,3-Dinitrobenzene	3.24	0.500	1.00	ug/L	2	4.00	---	81	49-128%	---	---	
1,4-Dinitrobenzene	3.15	0.500	1.00	ug/L	2	4.00	---	79	72-130%	---	---	
Pyridine	1.27	0.200	0.400	ug/L	2	4.00	---	32	10-120%	---	---	
1,2-Dichlorobenzene	1.49	0.0500	0.100	ug/L	2	4.00	---	37	32-120%	---	---	
1,3-Dichlorobenzene	1.34	0.0500	0.100	ug/L	2	4.00	---	34	28-120%	---	---	
1,4-Dichlorobenzene	1.40	0.0500	0.100	ug/L	2	4.00	---	35	29-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 85 %		Limits: 44-120 %		Dilution: 2x						
2-Fluorobiphenyl (Surr)		70 %		44-120 %		"						
Phenol-d6 (Surr)		31 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		89 %		50-134 %		"						
2-Fluorophenol (Surr)		45 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		98 %		43-140 %		"						

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (1013031-BSD1)			Prepared: 01/19/21 11:11 Analyzed: 01/19/21 22:02					Q-19				
EPA 8270E												
Acenaphthene	2.99	0.0200	0.0400	ug/L	2	4.00	---	75	47-122%	12	30%	
Acenaphthylene	3.25	0.0200	0.0400	ug/L	2	4.00	---	81	41-130%	9	30%	
Anthracene	3.33	0.0200	0.0400	ug/L	2	4.00	---	83	57-123%	0.9	30%	
Benz(a)anthracene	3.37	0.0200	0.0400	ug/L	2	4.00	---	84	58-125%	1	30%	
Benzo(a)pyrene	3.52	0.0300	0.0600	ug/L	2	4.00	---	88	54-128%	2	30%	
Benzo(b)fluoranthene	3.48	0.0300	0.0600	ug/L	2	4.00	---	87	53-131%	0.9	30%	
Benzo(k)fluoranthene	3.29	0.0300	0.0600	ug/L	2	4.00	---	82	57-129%	0.4	30%	
Benzo(g,h,i)perylene	3.54	0.0200	0.0400	ug/L	2	4.00	---	88	50-134%	2	30%	
Chrysene	3.36	0.0200	0.0400	ug/L	2	4.00	---	84	59-123%	0.3	30%	
Dibenz(a,h)anthracene	3.33	0.0200	0.0400	ug/L	2	4.00	---	83	51-134%	0.4	30%	
Fluoranthene	3.55	0.0200	0.0400	ug/L	2	4.00	---	89	57-128%	0.1	30%	
Fluorene	3.22	0.0200	0.0400	ug/L	2	4.00	---	80	52-124%	7	30%	
Indeno(1,2,3-cd)pyrene	3.29	0.0200	0.0400	ug/L	2	4.00	---	82	52-134%	2	30%	
1-Methylnaphthalene	2.71	0.0400	0.0800	ug/L	2	4.00	---	68	41-120%	23	30%	
2-Methylnaphthalene	2.76	0.0400	0.0800	ug/L	2	4.00	---	69	40-121%	26	30%	
Naphthalene	2.52	0.0400	0.0800	ug/L	2	4.00	---	63	40-121%	23	30%	
Phenanthrene	3.19	0.0200	0.0400	ug/L	2	4.00	---	80	59-120%	2	30%	
Pyrene	3.44	0.0200	0.0400	ug/L	2	4.00	---	86	57-126%	0.4	30%	
Carbazole	3.66	0.0300	0.0600	ug/L	2	4.00	---	92	60-122%	2	30%	
Dibenzofuran	3.04	0.0200	0.0400	ug/L	2	4.00	---	76	53-120%	8	30%	
2-Chlorophenol	2.82	0.100	0.200	ug/L	2	4.00	---	71	38-120%	3	30%	
4-Chloro-3-methylphenol	3.20	0.200	0.400	ug/L	2	4.00	---	80	52-120%	0.4	30%	
2,4-Dichlorophenol	3.27	0.100	0.200	ug/L	2	4.00	---	82	47-121%	0.8	30%	
2,4-Dimethylphenol	3.28	0.100	0.200	ug/L	2	4.00	---	82	31-124%	4	30%	
2,4-Dinitrophenol	3.35	0.500	1.00	ug/L	2	4.00	---	84	23-143%	2	30%	
4,6-Dinitro-2-methylphenol	3.11	0.500	1.00	ug/L	2	4.00	---	78	44-137%	0.1	30%	Q-31
2-Methylphenol	2.64	0.0500	0.100	ug/L	2	4.00	---	66	30-120%	4	30%	
3+4-Methylphenol(s)	2.40	0.0500	0.100	ug/L	2	4.00	---	60	29-120%	6	30%	
2-Nitrophenol	3.17	0.200	0.400	ug/L	2	4.00	---	79	47-123%	2	30%	
4-Nitrophenol	1.38	0.200	0.400	ug/L	2	4.00	---	35	10-120%	3	30%	
Pentachlorophenol (PCP)	3.59	0.200	0.400	ug/L	2	4.00	---	90	35-138%	2	30%	
Phenol	1.17	0.400	0.800	ug/L	2	4.00	---	29	10-120%	8	30%	
2,3,4,6-Tetrachlorophenol	3.39	0.100	0.200	ug/L	2	4.00	---	85	50-128%	0.07	30%	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (1013031-BSD1)						Prepared: 01/19/21 11:11 Analyzed: 01/19/21 22:02						Q-19
2,3,5,6-Tetrachlorophenol	3.68	0.100	0.200	ug/L	2	4.00	---	92	50-121%	0.3	30%	
2,4,5-Trichlorophenol	3.42	0.100	0.200	ug/L	2	4.00	---	85	53-123%	1	30%	
2,4,6-Trichlorophenol	3.53	0.100	0.200	ug/L	2	4.00	---	88	50-125%	0.2	30%	
Bis(2-ethylhexyl)phthalate	3.50	0.400	0.800	ug/L	2	4.00	---	87	55-135%	2	30%	
Butyl benzyl phthalate	3.89	0.400	0.800	ug/L	2	4.00	---	97	53-134%	1	30%	
Diethylphthalate	3.42	0.400	0.800	ug/L	2	4.00	---	85	56-125%	1	30%	
Dimethylphthalate	3.44	0.400	0.800	ug/L	2	4.00	---	86	45-127%	0.1	30%	
Di-n-butylphthalate	3.80	0.400	0.800	ug/L	2	4.00	---	95	59-127%	0.7	30%	
Di-n-octyl phthalate	3.90	0.400	0.800	ug/L	2	4.00	---	98	51-140%	2	30%	
N-Nitrosodimethylamine	1.68	0.0500	0.100	ug/L	2	4.00	---	42	10-120%	7	30%	
N-Nitroso-di-n-propylamine	3.29	0.0500	0.100	ug/L	2	4.00	---	82	49-120%	1	30%	
N-Nitrosodiphenylamine	3.43	0.0500	0.100	ug/L	2	4.00	---	86	51-123%	3	30%	
Bis(2-Chloroethoxy) methane	3.00	0.0500	0.100	ug/L	2	4.00	---	75	48-120%	0.02	30%	
Bis(2-Chloroethyl) ether	2.87	0.0500	0.100	ug/L	2	4.00	---	72	43-120%	2	30%	
2,2'-Oxybis(1-Chloropropane)	2.81	0.0500	0.100	ug/L	2	4.00	---	70	37-130%	4	30%	
Hexachlorobenzene	3.24	0.0200	0.0400	ug/L	2	4.00	---	81	53-125%	3	30%	
Hexachlorobutadiene	2.16	0.0500	0.100	ug/L	2	4.00	---	54	22-124%	55	30%	Q-24
Hexachlorocyclopentadiene	1.90	0.100	0.200	ug/L	2	4.00	---	47	10-127%	64	30%	Q-24
Hexachloroethane	2.07	0.0500	0.100	ug/L	2	4.00	---	52	21-120%	54	30%	Q-24
2-Chloronaphthalene	2.74	0.0200	0.0400	ug/L	2	4.00	---	69	40-120%	21	30%	
1,2,4-Trichlorobenzene	2.31	0.0500	0.100	ug/L	2	4.00	---	58	29-120%	40	30%	Q-24
4-Bromophenyl phenyl ether	3.35	0.0500	0.100	ug/L	2	4.00	---	84	55-124%	4	30%	
4-Chlorophenyl phenyl ether	3.10	0.0500	0.100	ug/L	2	4.00	---	77	53-121%	7	30%	
Aniline	1.91	0.100	0.200	ug/L	2	4.00	---	48	10-120%	17	30%	
4-Chloroaniline	2.78	0.0500	0.100	ug/L	2	4.00	---	69	33-120%	4	30%	
2-Nitroaniline	3.40	0.400	0.800	ug/L	2	4.00	---	85	55-127%	0.8	30%	
3-Nitroaniline	3.01	0.400	0.800	ug/L	2	4.00	---	75	41-128%	2	30%	
4-Nitroaniline	2.42	0.400	0.800	ug/L	2	4.00	---	60	54-128%	7	30%	
Nitrobenzene	3.04	0.200	0.400	ug/L	2	4.00	---	76	45-121%	0.8	30%	
2,4-Dinitrotoluene	3.31	0.200	0.400	ug/L	2	4.00	---	83	57-128%	2	30%	
2,6-Dinitrotoluene	3.17	0.200	0.400	ug/L	2	4.00	---	79	57-124%	1	30%	
Benzoic acid	3.80	2.50	2.50	ug/L	2	8.00	---	48	10-120%	3	30%	Q-31
Benzyl alcohol	3.00	0.200	0.400	ug/L	2	4.00	---	75	31-120%	4	30%	
Isophorone	3.39	0.0500	0.100	ug/L	2	4.00	---	85	42-124%	0.4	30%	

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

Page 84 of 104



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (Acid/Base Neutral)							Water					
LCS Dup (1013031-BSD1)					Prepared: 01/19/21 11:11 Analyzed: 01/19/21 22:02						Q-19	
Azobenzene (1,2-DPH)	3.17	0.0500	0.100	ug/L	2	4.00	---	79	61-120%	3	30%	
Bis(2-Ethylhexyl) adipate	3.59	0.500	1.00	ug/L	2	4.00	---	90	57-136%	3	30%	
3,3'-Dichlorobenzidine	6.78	1.00	2.00	ug/L	2	8.00	---	85	27-129%	4	30%	
1,2-Dinitrobenzene	3.23	0.500	1.00	ug/L	2	4.00	---	81	59-120%	3	30%	
1,3-Dinitrobenzene	3.26	0.500	1.00	ug/L	2	4.00	---	81	49-128%	0.7	30%	
1,4-Dinitrobenzene	3.24	0.500	1.00	ug/L	2	4.00	---	81	72-130%	3	30%	
Pyridine	1.09	0.200	0.400	ug/L	2	4.00	---	27	10-120%	15	30%	
1,2-Dichlorobenzene	2.18	0.0500	0.100	ug/L	2	4.00	---	55	32-120%	38	30%	Q-24
1,3-Dichlorobenzene	2.08	0.0500	0.100	ug/L	2	4.00	---	52	28-120%	43	30%	Q-24
1,4-Dichlorobenzene	2.12	0.0500	0.100	ug/L	2	4.00	---	53	29-120%	41	30%	Q-24
Surr: Nitrobenzene-d5 (Surr)												
			Recovery:	80 %	Limits:	44-120 %	Dilution:	2x				
2-Fluorobiphenyl (Surr)				71 %		44-120 %		"				
Phenol-d6 (Surr)				27 %		10-133 %		"				
p-Terphenyl-d14 (Surr)				83 %		50-134 %		"				
2-Fluorophenol (Surr)				41 %		19-120 %		"				
2,4,6-Tribromophenol (Surr)				92 %		43-140 %		"				

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Page 85 of 104



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013175 - EPA 3015A						Water						
Blank (1013175-BLK1)			Prepared: 01/22/21 08:55		Analyzed: 01/22/21 18:18							
EPA 6020B												
Antimony	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Calcium	ND	300	600	ug/L	1	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Magnesium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Silver	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	

LCS (1013175-BS1)

Prepared: 01/22/21 08:55 Analyzed: 01/22/21 18:24

EPA 6020B												
Antimony	26.8	0.500	1.00	ug/L	1	27.8	---	97	80-120%	---	---	
Arsenic	58.9	0.500	1.00	ug/L	1	55.6	---	106	80-120%	---	---	
Barium	53.9	0.500	1.00	ug/L	1	55.6	---	97	80-120%	---	---	
Beryllium	26.4	0.100	0.200	ug/L	1	27.8	---	95	80-120%	---	---	
Cadmium	56.9	0.100	0.200	ug/L	1	55.6	---	102	80-120%	---	---	
Calcium	2820	300	600	ug/L	1	2780	---	102	80-120%	---	---	
Chromium	52.3	0.500	1.00	ug/L	1	55.6	---	94	80-120%	---	---	
Cobalt	57.5	0.500	1.00	ug/L	1	55.6	---	103	80-120%	---	---	
Copper	55.9	1.00	2.00	ug/L	1	55.6	---	101	80-120%	---	---	
Lead	59.7	0.100	0.200	ug/L	1	55.6	---	107	80-120%	---	---	
Magnesium	2540	50.0	100	ug/L	1	2780	---	91	80-120%	---	---	
Nickel	55.4	1.00	2.00	ug/L	1	55.6	---	100	80-120%	---	---	
Selenium	25.2	0.500	1.00	ug/L	1	27.8	---	91	80-120%	---	---	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013175 - EPA 3015A						Water						
LCS (1013175-BS1)						Prepared: 01/22/21 08:55 Analyzed: 01/22/21 18:24						
Silver	27.7	0.100	0.200	ug/L	1	27.8	---	100	80-120%	---	---	
Thallium	28.4	0.100	0.200	ug/L	1	27.8	---	102	80-120%	---	---	
Vanadium	56.7	1.00	2.00	ug/L	1	55.6	---	102	80-120%	---	---	
Zinc	55.0	2.00	4.00	ug/L	1	55.6	---	99	80-120%	---	---	

Duplicate (1013175-DUP1)

Prepared: 01/22/21 08:55 Analyzed: 01/22/21 18:50

QC Source Sample: GW01-0121 (A1A0458-04)**EPA 6020B**

Antimony	1.46	0.500	1.00	ug/L	1	---	1.49	---	---	1	20%
Arsenic	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%
Barium	55.3	0.500	1.00	ug/L	1	---	55.1	---	---	0.4	20%
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%
Cadmium	0.286	0.100	0.200	ug/L	1	---	0.285	---	---	0.4	20%
Chromium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%
Cobalt	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%
Copper	2.18	1.00	2.00	ug/L	1	---	2.07	---	---	5	20%
Lead	0.595	0.100	0.200	ug/L	1	---	0.564	---	---	6	20%
Magnesium	21100	50.0	100	ug/L	1	---	21000	---	---	0.5	20%
Nickel	2.16	1.00	2.00	ug/L	1	---	2.39	---	---	10	20%
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%
Silver	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%
Vanadium	2.36	1.00	2.00	ug/L	1	---	2.35	---	---	0.3	20%
Zinc	570	2.00	4.00	ug/L	1	---	580	---	---	2	20%

Duplicate (1013175-DUP3)

Prepared: 01/22/21 08:55 Analyzed: 02/03/21 16:25

QC Source Sample: GW01-0121 (A1A0458-04RE2)**EPA 6020B**

Calcium	152000	3000	6000	ug/L	10	---	148000	---	---	3	20%
---------	--------	------	------	------	----	-----	--------	-----	-----	---	-----

Matrix Spike (1013175-MS1)

Prepared: 01/22/21 08:55 Analyzed: 01/22/21 18:55

QC Source Sample: GW01-0121 (A1A0458-04)**EPA 6020B**

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013175 - EPA 3015A						Water						
Matrix Spike (1013175-MS1)				Prepared: 01/22/21 08:55 Analyzed: 01/22/21 18:55								
QC Source Sample: GW01-0121 (A1A0458-04)												
Antimony	28.8	0.500	1.00	ug/L	1	27.8	1.49	98	75-125%	---	---	
Arsenic	57.0	0.500	1.00	ug/L	1	55.6	ND	103	75-125%	---	---	
Barium	104	0.500	1.00	ug/L	1	55.6	55.1	88	75-125%	---	---	
Beryllium	26.2	0.100	0.200	ug/L	1	27.8	ND	94	75-125%	---	---	
Cadmium	55.2	0.100	0.200	ug/L	1	55.6	0.285	99	75-125%	---	---	
Chromium	51.2	0.500	1.00	ug/L	1	55.6	ND	92	75-125%	---	---	
Cobalt	54.8	0.500	1.00	ug/L	1	55.6	ND	99	75-125%	---	---	
Copper	54.7	1.00	2.00	ug/L	1	55.6	2.07	95	75-125%	---	---	
Lead	55.3	0.100	0.200	ug/L	1	55.6	0.564	99	75-125%	---	---	
Magnesium	23600	50.0	100	ug/L	1	2780	21000	92	75-125%	---	---	
Nickel	54.6	1.00	2.00	ug/L	1	55.6	2.39	94	75-125%	---	---	
Selenium	27.0	0.500	1.00	ug/L	1	27.8	ND	97	75-125%	---	---	
Silver	27.3	0.100	0.200	ug/L	1	27.8	ND	98	75-125%	---	---	
Thallium	28.3	0.100	0.200	ug/L	1	27.8	ND	102	75-125%	---	---	
Vanadium	58.3	1.00	2.00	ug/L	1	55.6	2.35	101	75-125%	---	---	
Zinc	625	2.00	4.00	ug/L	1	55.6	580	81	75-125%	---	---	
Matrix Spike (1013175-MS3)				Prepared: 01/22/21 08:55 Analyzed: 02/03/21 16:30								
QC Source Sample: GW01-0121 (A1A0458-04RE2)												
EPA 6020B												
Calcium	154000	3000	6000	ug/L	10	2780	148000	220	75-125%	---	---	Q-03

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013184 - Matrix Matched Direct Inject							Water					
Blank (1013184-BLK1)			Prepared: 01/22/21 10:06		Analyzed: 01/22/21 16:49							
EPA 6020B (Diss)												
Antimony	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3
Barium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	FILT3
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	FILT3
Chromium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	FILT3
Lead	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	FILT3
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	FILT3
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	FILT3
Silver	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	FILT3
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	FILT3
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	FILT3
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	FILT3

LCS (1013184-BS1)

Prepared: 01/22/21 10:06 Analyzed: 01/22/21 16:54

EPA 6020B (Diss)												
Antimony	26.2	0.500	1.00	ug/L	1	27.8	---	94	80-120%	---	---	
Arsenic	54.7	0.500	1.00	ug/L	1	55.6	---	98	80-120%	---	---	
Barium	51.3	0.500	1.00	ug/L	1	55.6	---	92	80-120%	---	---	
Beryllium	25.6	0.100	0.200	ug/L	1	27.8	---	92	80-120%	---	---	
Cadmium	55.4	0.100	0.200	ug/L	1	55.6	---	100	80-120%	---	---	
Chromium	49.9	0.500	1.00	ug/L	1	55.6	---	90	80-120%	---	---	
Cobalt	55.4	0.500	1.00	ug/L	1	55.6	---	100	80-120%	---	---	
Copper	53.9	1.00	2.00	ug/L	1	55.6	---	97	80-120%	---	---	
Lead	57.0	0.100	0.200	ug/L	1	55.6	---	103	80-120%	---	---	
Nickel	54.3	1.00	2.00	ug/L	1	55.6	---	98	80-120%	---	---	
Selenium	24.6	0.500	1.00	ug/L	1	27.8	---	88	80-120%	---	---	
Silver	26.9	0.100	0.200	ug/L	1	27.8	---	97	80-120%	---	---	
Thallium	27.5	0.100	0.200	ug/L	1	27.8	---	99	80-120%	---	---	
Vanadium	54.7	1.00	2.00	ug/L	1	55.6	---	99	80-120%	---	---	
Zinc	52.7	2.00	4.00	ug/L	1	55.6	---	95	80-120%	---	---	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013184 - Matrix Matched Direct Inject							Water					
Duplicate (1013184-DUP1)												
Prepared: 01/22/21 10:06 Analyzed: 01/22/21 17:31												
QC Source Sample: GW01-0121 (A1A0458-04)												
EPA 6020B (Diss)												
Antimony	1.53	0.500	1.00	ug/L	1	---	1.47	---	---	4	20%	
Arsenic	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Barium	54.6	0.500	1.00	ug/L	1	---	51.7	---	---	6	20%	
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Cadmium	0.302	0.100	0.200	ug/L	1	---	0.283	---	---	7	20%	
Chromium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Cobalt	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Copper	1.83	1.00	2.00	ug/L	1	---	1.58	---	---	15	20%	Ja
Lead	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Nickel	2.13	1.00	2.00	ug/L	1	---	1.81	---	---	16	20%	
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Silver	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	1.62	1.00	2.00	ug/L	1	---	1.51	---	---	7	20%	Ja
Zinc	575	2.00	4.00	ug/L	1	---	547	---	---	5	20%	

Matrix Spike (1013184-MS1)

Prepared: 01/22/21 10:06 Analyzed: 01/22/21 17:36

QC Source Sample: GW01-0121 (A1A0458-04)

EPA 6020B (Diss)

Antimony	28.0	0.500	1.00	ug/L	1	27.8	1.47	96	75-125%	---	---
Arsenic	55.5	0.500	1.00	ug/L	1	55.6	ND	100	75-125%	---	---
Barium	101	0.500	1.00	ug/L	1	55.6	51.7	89	75-125%	---	---
Beryllium	25.6	0.100	0.200	ug/L	1	27.8	ND	92	75-125%	---	---
Cadmium	55.5	0.100	0.200	ug/L	1	55.6	0.283	99	75-125%	---	---
Chromium	49.8	0.500	1.00	ug/L	1	55.6	ND	90	75-125%	---	---
Cobalt	53.2	0.500	1.00	ug/L	1	55.6	ND	96	75-125%	---	---
Copper	52.0	1.00	2.00	ug/L	1	55.6	1.58	91	75-125%	---	---
Lead	55.7	0.100	0.200	ug/L	1	55.6	ND	100	75-125%	---	---
Nickel	52.8	1.00	2.00	ug/L	1	55.6	1.81	92	75-125%	---	---
Selenium	25.6	0.500	1.00	ug/L	1	27.8	ND	92	75-125%	---	---
Silver	27.3	0.100	0.200	ug/L	1	27.8	ND	98	75-125%	---	---

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013184 - Matrix Matched Direct Inject							Water					
Matrix Spike (1013184-MS1)			Prepared: 01/22/21 10:06 Analyzed: 01/22/21 17:36									
QC Source Sample: GW01-0121 (A1A0458-04)												
Thallium	27.6	0.100	0.200	ug/L	1	27.8	ND	99	75-125%	---	---	
Vanadium	56.5	1.00	2.00	ug/L	1	55.6	1.51	99	75-125%	---	---	
Zinc	596	2.00	4.00	ug/L	1	55.6	547	88	75-125%	---	---	

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Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

QUALITY CONTROL (QC) SAMPLE RESULTS

Nitrate + Nitrite by EPA 353.2

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012984 - Method Prep: Aq						Water						
Blank (1012984-BLK1)			Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:04									
EPA 353.2												
Nitrate+Nitrite Nitrogen	ND	0.0100	0.0200	mg/L	1	---	---	---	---	---	---	
LCS (1012984-BS1)			Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:05									
EPA 353.2												
Nitrate+Nitrite Nitrogen	0.370	0.0100	0.0200	mg/L	1	0.375	---	99	90-110%	---	---	DOC
LCS (1012984-BS2)			Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:06									
EPA 353.2												
Nitrate+Nitrite Nitrogen	0.372	0.0100	0.0200	mg/L	1	0.375	---	99	90-110%	---	---	DOC
LCS (1012984-BS3)			Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:07									
EPA 353.2												
Nitrate+Nitrite Nitrogen	0.371	0.0100	0.0200	mg/L	1	0.375	---	99	90-110%	---	---	DOC
LCS (1012984-BS4)			Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:09									
EPA 353.2												
Nitrate+Nitrite Nitrogen	0.375	0.0100	0.0200	mg/L	1	0.375	---	100	90-110%	---	---	DOC
Duplicate (1012984-DUP1)			Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:11									
QC Source Sample: SE01-0121 (A1A0458-01)												
EPA 353.2												
Nitrate+Nitrite Nitrogen	0.456	0.0100	0.0200	mg/L	1	---	0.459	---	---	0.7	20%	
Matrix Spike (1012984-MS1)			Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:12									
QC Source Sample: SE01-0121 (A1A0458-01)												
EPA 353.2												
Nitrate+Nitrite Nitrogen	0.870	0.0104	0.0208	mg/L	1	0.390	0.459	105	90-110%	---	---	

Apex Laboratories

Philip Nerenberg For Lisa Domenighini, Client Services Manager

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

PPCPs - Polybrominated Diphenyl Ethers by GC/MS SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W1A1118 - EPA 525.2/SPE						Water						
Blank (W1A1118-BLK1)			Prepared: 01/22/21 10:39		Analyzed: 01/27/21 15:21							
GC/MS SIM												
PBDE-17	ND	0.86	5.0	ng/l	1	---	---	---	---	---	---	
PBDE-28	ND	1.0	5.0	ng/l	1	---	---	---	---	---	---	
PBDE-49	ND	0.76	5.0	ng/l	1	---	---	---	---	---	---	
PBDE-47	ND	1.4	5.0	ng/l	1	---	---	---	---	---	---	
PBDE-99	ND	1.6	5.0	ng/l	1	---	---	---	---	---	---	
PBDE-100	ND	2.0	5.0	ng/l	1	---	---	---	---	---	---	
PBDE-85	ND	2.9	5.0	ng/l	1	---	---	---	---	---	---	
PBDE-138	ND	1.6	5.0	ng/l	1	---	---	---	---	---	---	
PBDE-153	ND	3.9	5.0	ng/l	1	---	---	---	---	---	---	
PBDE-154	ND	3.9	5.0	ng/l	1	---	---	---	---	---	---	
Surr: Perylene-d12		Recovery: 70 %		Limits: 50-150 %		Dilution: 1x						
Triphenyl phosphate		106 %		50-150 %		"						

LCS (W1A1118-BS1) Prepared: 01/22/21 10:39 Analyzed: 01/27/21 15:38

GC/MS SIM												
PBDE-17	31.7	0.86	5.0	ng/l	1	50.0	---	63	50-150%	---	---	
PBDE-28	32.4	1.0	5.0	ng/l	1	50.0	---	65	50-150%	---	---	
PBDE-49	48.2	0.76	5.0	ng/l	1	50.0	---	96	50-150%	---	---	
PBDE-47	37.6	1.4	5.0	ng/l	1	50.0	---	75	50-150%	---	---	
PBDE-99	35.3	1.6	5.0	ng/l	1	50.0	---	71	50-150%	---	---	
PBDE-100	41.3	2.0	5.0	ng/l	1	50.0	---	83	50-150%	---	---	
PBDE-138	37.7	1.6	5.0	ng/l	1	50.0	---	75	50-150%	---	---	
PBDE-153	38.0	3.9	5.0	ng/l	1	50.0	---	76	50-150%	---	---	
PBDE-154	34.8	3.9	5.0	ng/l	1	50.0	---	70	50-150%	---	---	
Surr: Perylene-d12		Recovery: 89 %		Limits: 50-150 %		Dilution: 1x						
Triphenyl phosphate		123 %		50-150 %		"						

LCS Dup (W1A1118-BS1) Prepared: 01/22/21 10:39 Analyzed: 01/27/21 15:55

GC/MS SIM												
PBDE-17	31.0	0.86	5.0	ng/l	1	50.0	---	62	50-150%	2	30%	
PBDE-28	30.0	1.0	5.0	ng/l	1	50.0	---	60	50-150%	7	30%	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****Weck Laboratories, Inc.****QUALITY CONTROL (QC) SAMPLE RESULTS****PPCPs - Polybrominated Diphenyl Ethers by GC/MS SIM**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W1A1118 - EPA 525.2/SPE						Water						
LCS Dup (W1A1118-BSD1)			Prepared: 01/22/21 10:39		Analyzed: 01/27/21 15:55							
PBDE-49	47.8	0.76	5.0	ng/l	1	50.0	---	96	50-150%	0.7	30%	
PBDE-47	38.0	1.4	5.0	ng/l	1	50.0	---	76	50-150%	1	30%	
PBDE-99	39.3	1.6	5.0	ng/l	1	50.0	---	79	50-150%	11	30%	
PBDE-100	45.1	2.0	5.0	ng/l	1	50.0	---	90	50-150%	9	30%	
PBDE-138	42.8	1.6	5.0	ng/l	1	50.0	---	86	50-150%	13	30%	
PBDE-153	42.1	3.9	5.0	ng/l	1	50.0	---	84	50-150%	10	30%	
PBDE-154	39.3	3.9	5.0	ng/l	1	50.0	---	79	50-150%	12	30%	
Surr: Perylene-d12		Recovery: 103 %		Limits: 50-150 %		Dilution: 1x						
Triphenyl phosphate		132 %		50-150 %		"						

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

SAMPLE PREPARATION INFORMATION

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1012821							
A1A0458-01	Water	EPA 8260D	01/11/21 13:30	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-02	Water	EPA 8260D	01/11/21 13:40	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-03	Water	EPA 8260D	01/11/21 14:15	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-04	Water	EPA 8260D	01/12/21 10:00	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-05	Water	EPA 8260D	01/12/21 11:45	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-06	Water	EPA 8260D	01/12/21 12:25	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-07	Water	EPA 8260D	01/12/21 13:15	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00

Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3510C (Acid/Base Neutral)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1012876							
A1A0458-01	Water	EPA 8270E	01/11/21 13:30	01/14/21 10:43	1030mL/1mL	1000mL/1mL	0.97
A1A0458-02	Water	EPA 8270E	01/11/21 13:40	01/14/21 10:43	1010mL/1mL	1000mL/1mL	0.99
A1A0458-03	Water	EPA 8270E	01/11/21 14:15	01/14/21 10:43	1040mL/1mL	1000mL/1mL	0.96
A1A0458-04	Water	EPA 8270E	01/12/21 10:00	01/14/21 10:43	1030mL/1mL	1000mL/1mL	0.97
A1A0458-05RE1	Water	EPA 8270E	01/12/21 11:45	01/14/21 10:43	960mL/1mL	1000mL/1mL	1.04
A1A0458-06RE1	Water	EPA 8270E	01/12/21 12:25	01/14/21 10:43	1000mL/1mL	1000mL/1mL	1.00
Batch: 1013031							
A1A0458-07RE1	Water	EPA 8270E	01/12/21 13:15	01/19/21 11:11	1040mL/1mL	1000mL/1mL	0.96

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1013175							
A1A0458-01	Water	EPA 6020B	01/11/21 13:30	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-02	Water	EPA 6020B	01/11/21 13:40	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-03	Water	EPA 6020B	01/11/21 14:15	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-03RE1	Water	EPA 6020B	01/11/21 14:15	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-04	Water	EPA 6020B	01/12/21 10:00	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-04RE2	Water	EPA 6020B	01/12/21 10:00	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-05	Water	EPA 6020B	01/12/21 11:45	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-06	Water	EPA 6020B	01/12/21 12:25	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-07	Water	EPA 6020B	01/12/21 13:15	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558**

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
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Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
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Batch: 1013184

A1A0458-01	Water	EPA 6020B (Diss)	01/11/21 13:30	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00
A1A0458-02	Water	EPA 6020B (Diss)	01/11/21 13:40	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00
A1A0458-03	Water	EPA 6020B (Diss)	01/11/21 14:15	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00
A1A0458-04	Water	EPA 6020B (Diss)	01/12/21 10:00	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00
A1A0458-05	Water	EPA 6020B (Diss)	01/12/21 11:45	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00
A1A0458-06	Water	EPA 6020B (Diss)	01/12/21 12:25	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00
A1A0458-07	Water	EPA 6020B (Diss)	01/12/21 13:15	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00

Nitrate + Nitrite by EPA 353.2

Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
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Batch: 1012984

A1A0458-01	Water	EPA 353.2	01/11/21 13:30	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-02	Water	EPA 353.2	01/11/21 13:40	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-03	Water	EPA 353.2	01/11/21 14:15	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-04	Water	EPA 353.2	01/12/21 10:00	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-05	Water	EPA 353.2	01/12/21 11:45	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-06	Water	EPA 353.2	01/12/21 12:25	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-07	Water	EPA 353.2	01/12/21 13:15	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****Weck Laboratories, Inc.****SAMPLE PREPARATION INFORMATION****PPCPs - Polybrominated Diphenyl Ethers by GC/MS SIM**Prep: EPA 525.2/SPE

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: W1A1118</u>							
A1A0458-01	Water	GC/MS SIM	01/11/21 13:30	01/22/21 10:39	500ml/1ml	1000ml/1ml	2.00
A1A0458-02	Water	GC/MS SIM	01/11/21 13:40	01/22/21 10:39	500ml/1ml	1000ml/1ml	2.00
A1A0458-03	Water	GC/MS SIM	01/11/21 14:15	01/22/21 10:39	200ml/1ml	1000ml/1ml	5.00
A1A0458-04	Water	GC/MS SIM	01/12/21 10:00	01/22/21 10:39	500ml/1ml	1000ml/1ml	2.00
A1A0458-05	Water	GC/MS SIM	01/12/21 11:45	01/22/21 10:39	500ml/1ml	1000ml/1ml	2.00
A1A0458-06	Water	GC/MS SIM	01/12/21 12:25	01/22/21 10:39	200ml/1ml	1000ml/1ml	5.00
A1A0458-07	Water	GC/MS SIM	01/12/21 13:15	01/22/21 10:39	1000ml/1ml	1000ml/1ml	1.00

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****QUALIFIER DEFINITIONS****Client Sample and Quality Control (QC) Sample Qualifier Definitions:****Apex Laboratories**

- DOC** DOC Study
- FILT1** Sample was lab filtered and acid preserved prior to analysis. See sample preparation section of report for date and time of filtration.
- FILT3** This is a laboratory filtration blank, associated with filtration batch 1012849. See Prep page of report for associated samples.
- Ja** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-03** Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-24** The RPD for this spike and spike duplicate is above established control limits. Recoveries for both the spike and spike duplicate are within control limits.
- Q-30** Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-52** Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +25%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- S-03** Sample re-extract, or the analysis of an associated Batch QC sample, confirms surrogate failure due to sample matrix effect.

Weck Laboratories, Inc.

- J** Estimated conc. detected <MRL and >MDL.

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

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Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

- M-02** Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
- S-GC** Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate.

Apex Laboratories

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**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

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Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****REPORTING NOTES AND CONVENTIONS:****Abbreviations:**

DET	Analyte DETECTED at or above the detection or reporting limit.
ND	Analyte NOT DETECTED at or above the detection or reporting limit.
NR	Result Not Reported
RPD	Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.**" "** Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****REPORTING NOTES AND CONVENTIONS (Cont.):****Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:**Mixed Matrix Samples:****Water Samples:**

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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**ANALYTICAL REPORT**

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius****Report ID:****A1A0458 - 04 19 23 1558****LABORATORY ACCREDITATION INFORMATION****ORELAP Certification ID: OR100062 (Primary Accreditation)** -**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

APEX LABS		CHAIN OF CUSTODY		Lab # <u>A1A0458</u> COC <u>1 of 2</u>	
Company: <u>GSI</u>		Project Mgr: <u>Genevieve Schutzius</u>		Project Name: <u>Eatonville</u>	
Address: <u>55 SW Yamhill St, Ste. 200</u>		Phone: <u>970-430-5869</u>		Email: <u>gschutzius@gsi-us.com</u>	
Sampled by: <u>GS JS</u>		Project #: _____		PO #: _____	
Site Location: <u>WA CA</u>		ANALYSIS REQUEST		ARCHIVE	
AK ID: _____		LAB ID #		DATE	
TIME		MATRIX		# OF CONTAINERS	
SAMPLE ID		DATE		TIME	
SE01-0121	11/12/14	1330	SW	11	
SE101-0121	11/12/14	1340	SW	11	
SE02-0121	11/12/14	1415	SW	11	
GW01-0121	11/12/14	1000	SW	11	
SW01-0121	11/12/14	1145	SW	11	
SW02-0121	11/12/14	1225	SW	11	
SW03-0121	11/12/14	1345	SW	11	
SPECIAL INSTRUCTIONS:					
Normal Turn Around Time (TAT) = 10 Business Days					
TAT Requested (circle) 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____					
SAMPLES ARE HELD FOR 30 DAYS					
RELINQUISHED BY:		RECEIVED BY:		RECEIVED BY:	
Signature: <u>[Signature]</u>		Signature: <u>[Signature]</u>		Signature: _____	
Date: <u>11/12/14</u>		Date: <u>11/12/14</u>		Date: _____	
Printed Name: <u>Genevieve Schutzius</u>		Printed Name: <u>Genevieve Schutzius</u>		Printed Name: _____	
Company: <u>GSI</u>		Company: <u>GSI</u>		Company: _____	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg

Philip Nerenberg For Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: Landfill WA StateProject Manager: Genevieve Schutzius

Report ID:

A1A0458 - 04 19 23 1558

APEX LABS COOLER RECEIPT FORM

Client: GSI Element WO#: A1A0458Project/Project #: Eatonville

Delivery Info:

Date/time received: 1/13/21 @ 917 By: ECDelivered by: Apex ☒ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 1/13/21 @ 917 By: ECChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>0.7</u>	<u>5.6</u>	<u>0.8</u>	<u>0.2</u>			
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>			
Temp. blanks? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>			
Ice type: (Gel/Real/Other)	<u>real</u>	<u>real</u>	<u>real</u>	<u>real</u>			
Condition:	<u>good</u>	<u>good</u>	<u>good</u>	<u>good</u>			

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 1/13/21 @ 1050 By: ECAll samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☐ No ☒ Comments: SE01-0121 all containers except 11 ampers
had T of 1300 SE02-0121 no D/T on HNO3 poly. 4 TBs received but not listed on COCCOC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:Do VOA vials have visible headspace? Yes ☐ No ☒ NA ☐

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments:

Additional information: TB# 2523

Labeled by:

EC

Witness:

AKK

Cooler Inspected by:

EC

Apex Laboratories

Philip Nerenberg

Philip Nerenberg For Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Tuesday, April 25, 2023

Josh Bale

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

RE: A1K0892 - Eatonville - 0171.067

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1K0892, which was received by the laboratory on 11/18/2021 at 10:46:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	1.6 degC	Cooler #2	2.1 degC
Cooler #3	1.3 degC	Cooler #4	0.8 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL REPORT FOR SAMPLES**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW-PZ-01-1121	A1K0892-01	Water	11/17/21 17:40	11/18/21 10:46
GW-PZ-02-1121	A1K0892-02	Water	11/17/21 15:35	11/18/21 10:46
GW-PZ-03-1121	A1K0892-03	Water	11/17/21 12:05	11/18/21 10:46
GW-PZ-04-1121	A1K0892-04	Water	11/17/21 10:32	11/18/21 10:46
GW-PZ-05-1121	A1K0892-05	Water	11/17/21 16:00	11/18/21 10:46
GW-Dup-1-1121	A1K0892-06	Water	11/17/21 15:40	11/18/21 10:46
GW-Equipment-Blank-1121	A1K0892-07	Water	11/17/21 18:10	11/18/21 10:46
GW-Trip-Blank-1121	A1K0892-08	Water	11/17/21 08:00	11/18/21 10:46

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL CASE NARRATIVE

A1K0892

Apex Laboratories

Amended Report Revision 1:

Reporting to the Method Reporting Limits (MRLs)-

This report supersedes all previous reports.

The final report has been amended to report all samples to the MRLs.

Philip Nerenberg

Lab Director

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-01-1121 (A1K0892-01)			Matrix: Water			Batch: 21K0974		
Acenaphthene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Acenaphthylene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Benz(a)anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Benzo(a)pyrene	ND	0.0170	0.0341	ug/L	1	11/23/21 17:57	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0170	0.0341	ug/L	1	11/23/21 17:57	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0170	0.0341	ug/L	1	11/23/21 17:57	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Chrysene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Fluoranthene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Fluorene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
1-Methylnaphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 17:57	EPA 8270E	
2-Methylnaphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 17:57	EPA 8270E	
Naphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 17:57	EPA 8270E	
Phenanthrene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Pyrene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Dibenzofuran	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 60 %		Limits: 44-120 %	1	11/23/21 17:57	EPA 8270E	
2-Fluorobiphenyl (Surr)		67 %		44-120 %	1	11/23/21 17:57	EPA 8270E	
Phenol-d6 (Surr)		20 %		10-133 %	1	11/23/21 17:57	EPA 8270E	
p-Terphenyl-d14 (Surr)		67 %		50-134 %	1	11/23/21 17:57	EPA 8270E	
2-Fluorophenol (Surr)		31 %		19-120 %	1	11/23/21 17:57	EPA 8270E	
2,4,6-Tribromophenol (Surr)		99 %		43-140 %	1	11/23/21 17:57	EPA 8270E	Q-41
GW-PZ-02-1121 (A1K0892-02)			Matrix: Water			Batch: 21K0974		
Acenaphthene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Acenaphthylene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Anthracene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Benz(a)anthracene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Benzo(a)pyrene	ND	0.0169	0.0337	ug/L	1	11/23/21 18:32	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0169	0.0337	ug/L	1	11/23/21 18:32	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0169	0.0337	ug/L	1	11/23/21 18:32	EPA 8270E	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-02-1121 (A1K0892-02)		Matrix: Water			Batch: 21K0974			
Benzo(g,h,i)perylene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Chrysene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Fluoranthene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Fluorene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
1-Methylnaphthalene	ND	0.0225	0.0449	ug/L	1	11/23/21 18:32	EPA 8270E	
2-Methylnaphthalene	ND	0.0225	0.0449	ug/L	1	11/23/21 18:32	EPA 8270E	
Naphthalene	ND	0.0225	0.0449	ug/L	1	11/23/21 18:32	EPA 8270E	
Phenanthrene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Pyrene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Dibenzofuran	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	66 %	Limits:	44-120 %	1	11/23/21 18:32	EPA 8270E
2-Fluorobiphenyl (Surr)			76 %		44-120 %	1	11/23/21 18:32	EPA 8270E
Phenol-d6 (Surr)			23 %		10-133 %	1	11/23/21 18:32	EPA 8270E
p-Terphenyl-d14 (Surr)			88 %		50-134 %	1	11/23/21 18:32	EPA 8270E
2-Fluorophenol (Surr)			37 %		19-120 %	1	11/23/21 18:32	EPA 8270E
2,4,6-Tribromophenol (Surr)			102 %		43-140 %	1	11/23/21 18:32	EPA 8270E Q-41
GW-PZ-03-1121 (A1K0892-03)		Matrix: Water			Batch: 21K0974			
Acenaphthene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Acenaphthylene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Anthracene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Benz(a)anthracene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Benzo(a)pyrene	ND	0.0174	0.0349	ug/L	1	11/23/21 19:07	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0174	0.0349	ug/L	1	11/23/21 19:07	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0174	0.0349	ug/L	1	11/23/21 19:07	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Chrysene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Fluoranthene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Fluorene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
1-Methylnaphthalene	ND	0.0233	0.0465	ug/L	1	11/23/21 19:07	EPA 8270E	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-03-1121 (A1K0892-03)		Matrix: Water			Batch: 21K0974			
2-Methylnaphthalene	ND	0.0233	0.0465	ug/L	1	11/23/21 19:07	EPA 8270E	
Naphthalene	ND	0.0233	0.0465	ug/L	1	11/23/21 19:07	EPA 8270E	
Phenanthrene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Pyrene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Dibenzofuran	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	58 %	<i>Limits:</i>	44-120 %	1	11/23/21 19:07	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			65 %		44-120 %	1	11/23/21 19:07	EPA 8270E
<i>Phenol-d6 (Surr)</i>			22 %		10-133 %	1	11/23/21 19:07	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			91 %		50-134 %	1	11/23/21 19:07	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			34 %		19-120 %	1	11/23/21 19:07	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			100 %		43-140 %	1	11/23/21 19:07	EPA 8270E Q-41
GW-PZ-04-1121 (A1K0892-04)		Matrix: Water			Batch: 21K0974			
Acenaphthene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Acenaphthylene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Benz(a)anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Benzo(a)pyrene	ND	0.0170	0.0341	ug/L	1	11/23/21 19:42	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0170	0.0341	ug/L	1	11/23/21 19:42	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0170	0.0341	ug/L	1	11/23/21 19:42	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Chrysene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Fluoranthene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Fluorene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
1-Methylnaphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 19:42	EPA 8270E	
2-Methylnaphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 19:42	EPA 8270E	
Naphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 19:42	EPA 8270E	
Phenanthrene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Pyrene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Dibenzofuran	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	65 %	<i>Limits:</i>	44-120 %	1	11/23/21 19:42	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			69 %		44-120 %	1	11/23/21 19:42	EPA 8270E

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-04-1121 (A1K0892-04)		Matrix: Water			Batch: 21K0974			
Surrogate: Phenol-d6 (Surr)		Recovery: 19 %	Limits: 10-133 %	1	11/23/21 19:42	EPA 8270E		
p-Terphenyl-d14 (Surr)		83 %	50-134 %	1	11/23/21 19:42	EPA 8270E		
2-Fluorophenol (Surr)		31 %	19-120 %	1	11/23/21 19:42	EPA 8270E		
2,4,6-Tribromophenol (Surr)		104 %	43-140 %	1	11/23/21 19:42	EPA 8270E		Q-41
GW-Dup-1-1121 (A1K0892-06)		Matrix: Water			Batch: 21K0974			
Acenaphthene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Acenaphthylene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Anthracene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Benz(a)anthracene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Benzo(a)pyrene	ND	0.0156	0.0312	ug/L	1	11/23/21 20:18	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0156	0.0312	ug/L	1	11/23/21 20:18	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0156	0.0312	ug/L	1	11/23/21 20:18	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Chrysene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Fluoranthene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Fluorene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
1-Methylnaphthalene	ND	0.0208	0.0417	ug/L	1	11/23/21 20:18	EPA 8270E	
2-Methylnaphthalene	ND	0.0208	0.0417	ug/L	1	11/23/21 20:18	EPA 8270E	
Naphthalene	ND	0.0208	0.0417	ug/L	1	11/23/21 20:18	EPA 8270E	
Phenanthrene	0.0228	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Pyrene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Dibenzofuran	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 60 %	Limits: 44-120 %	1	11/23/21 20:18	EPA 8270E		
2-Fluorobiphenyl (Surr)		68 %	44-120 %	1	11/23/21 20:18	EPA 8270E		
Phenol-d6 (Surr)		21 %	10-133 %	1	11/23/21 20:18	EPA 8270E		
p-Terphenyl-d14 (Surr)		85 %	50-134 %	1	11/23/21 20:18	EPA 8270E		
2-Fluorophenol (Surr)		34 %	19-120 %	1	11/23/21 20:18	EPA 8270E		
2,4,6-Tribromophenol (Surr)		95 %	43-140 %	1	11/23/21 20:18	EPA 8270E		Q-41
GW-Equipment-Blank-1121 (A1K0892-07)		Matrix: Water			Batch: 21K0974			
Acenaphthene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Acenaphthylene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054**

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-Equipment-Blank-1121 (A1K0892-07)		Matrix: Water			Batch: 21K0974			
Anthracene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Benz(a)anthracene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Benzo(a)pyrene	ND	0.0147	0.0294	ug/L	1	11/23/21 20:53	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0147	0.0294	ug/L	1	11/23/21 20:53	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0147	0.0294	ug/L	1	11/23/21 20:53	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Chrysene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Fluoranthene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Fluorene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
1-Methylnaphthalene	ND	0.0196	0.0392	ug/L	1	11/23/21 20:53	EPA 8270E	
2-Methylnaphthalene	ND	0.0196	0.0392	ug/L	1	11/23/21 20:53	EPA 8270E	
Naphthalene	ND	0.0196	0.0392	ug/L	1	11/23/21 20:53	EPA 8270E	
Phenanthrene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Pyrene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Dibenzofuran	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	<i>69 %</i>	<i>Limits:</i>	<i>44-120 %</i>	<i>1</i>	<i>11/23/21 20:53</i>	<i>EPA 8270E</i>
<i>2-Fluorobiphenyl (Surr)</i>			<i>78 %</i>		<i>44-120 %</i>	<i>1</i>	<i>11/23/21 20:53</i>	<i>EPA 8270E</i>
<i>Phenol-d6 (Surr)</i>			<i>23 %</i>		<i>10-133 %</i>	<i>1</i>	<i>11/23/21 20:53</i>	<i>EPA 8270E</i>
<i>p-Terphenyl-d14 (Surr)</i>			<i>87 %</i>		<i>50-134 %</i>	<i>1</i>	<i>11/23/21 20:53</i>	<i>EPA 8270E</i>
<i>2-Fluorophenol (Surr)</i>			<i>38 %</i>		<i>19-120 %</i>	<i>1</i>	<i>11/23/21 20:53</i>	<i>EPA 8270E</i>
<i>2,4,6-Tribromophenol (Surr)</i>			<i>102 %</i>		<i>43-140 %</i>	<i>1</i>	<i>11/23/21 20:53</i>	<i>EPA 8270E</i>

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-01-1121 (A1K0892-01) Matrix: Water								
Batch: 21K0864								
Arsenic	1.98	0.500	1.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Barium	41.8	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/24/21 08:47	EPA 6020B	
Chromium	7.09	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Cobalt	3.42	0.500	1.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Copper	15.4	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Nickel	6.75	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Selenium	1.27	0.500	1.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	11/24/21 08:47	EPA 6020B	
Vanadium	10.1	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Zinc	15.8	2.00	4.00	ug/L	1	11/24/21 08:47	EPA 6020B	
GW-PZ-01-1121 (A1K0892-01RE1) Matrix: Water								
Batch: 21K0864								
Lead	2.58	0.110	0.200	ug/L	1	11/30/21 00:37	EPA 6020B	
GW-PZ-01-1121 (A1K0892-01RE2) Matrix: Water								
Batch: 21K0864								
Beryllium	0.327	0.100	0.200	ug/L	1	12/01/21 11:08	EPA 6020B	
GW-PZ-02-1121 (A1K0892-02) Matrix: Water								
Batch: 21K0864								
Arsenic	2.53	0.500	1.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Barium	49.3	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/24/21 08:52	EPA 6020B	
Chromium	4.67	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Cobalt	1.37	0.500	1.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Copper	8.48	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Nickel	3.30	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	11/24/21 08:52	EPA 6020B	
Vanadium	5.32	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Zinc	9.67	2.00	4.00	ug/L	1	11/24/21 08:52	EPA 6020B	

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-02-1121 (A1K0892-02RE1) Matrix: Water								
Batch: 21K0864								
Lead	1.29	0.110	0.200	ug/L	1	11/30/21 00:42	EPA 6020B	
GW-PZ-02-1121 (A1K0892-02RE2) Matrix: Water								
Batch: 21K0864								
Beryllium	0.102	0.100	0.200	ug/L	1	12/01/21 11:13	EPA 6020B	Ja
GW-PZ-03-1121 (A1K0892-03) Matrix: Water								
Batch: 21K1112								
Arsenic	0.602	0.500	1.00	ug/L	1	11/30/21 14:23	EPA 6020B	Ja
Barium	7.01	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 14:23	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Cobalt	0.541	0.500	1.00	ug/L	1	11/30/21 14:23	EPA 6020B	Ja
Copper	ND	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Lead	0.596	0.110	0.200	ug/L	1	11/30/21 14:23	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 14:23	EPA 6020B	
Vanadium	1.12	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	Ja
Zinc	7.95	2.00	4.00	ug/L	1	11/30/21 14:23	EPA 6020B	
GW-PZ-03-1121 (A1K0892-03RE1) Matrix: Water								
Batch: 21K1112								
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 11:28	EPA 6020B	Q-16
GW-PZ-04-1121 (A1K0892-04) Matrix: Water								
Batch: 21K1112								
Arsenic	2.18	0.500	1.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Barium	28.9	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 14:39	EPA 6020B	
Chromium	1.40	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B	Ja
Cobalt	1.01	0.500	1.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Copper	2.59	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Lead	0.703	0.110	0.200	ug/L	1	11/30/21 14:39	EPA 6020B	

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-04-1121 (A1K0892-04)		Matrix: Water						
Nickel	1.42	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B	Ja
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 14:39	EPA 6020B	
Vanadium	4.30	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Zinc	16.4	2.00	4.00	ug/L	1	11/30/21 14:39	EPA 6020B	
GW-PZ-04-1121 (A1K0892-04RE1)		Matrix: Water						
Batch: 21K1112								
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 11:43	EPA 6020B	
GW-PZ-05-1121 (A1K0892-05)		Matrix: Water						
Batch: 21K1112								
Arsenic	0.609	0.500	1.00	ug/L	1	11/30/21 14:44	EPA 6020B	Ja
Barium	33.9	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 14:44	EPA 6020B	
Chromium	1.07	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B	
Cobalt	1.19	0.500	1.00	ug/L	1	11/30/21 14:44	EPA 6020B	Ja
Copper	3.15	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B	
Lead	0.460	0.110	0.200	ug/L	1	11/30/21 14:44	EPA 6020B	
Nickel	2.66	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 14:44	EPA 6020B	Ja
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 14:44	EPA 6020B	
Vanadium	1.98	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B	
Zinc	25.9	2.00	4.00	ug/L	1	11/30/21 14:44	EPA 6020B	
GW-PZ-05-1121 (A1K0892-05RE1)		Matrix: Water						
Batch: 21K1112								
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 11:48	EPA 6020B	
GW-Dup-1-1121 (A1K0892-06)		Matrix: Water						
Batch: 21K1112								
Arsenic	2.50	0.500	1.00	ug/L	1	11/30/21 14:49	EPA 6020B	
Barium	51.1	1.00	2.00	ug/L	1	11/30/21 14:49	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 14:49	EPA 6020B	
Chromium	3.98	1.00	2.00	ug/L	1	11/30/21 14:49	EPA 6020B	

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-Dup-1-1121 (A1K0892-06) Matrix: Water								
Cobalt	1.31	0.500	1.00	ug/L	1	11/30/21 14:49	EPA 6020B	
Copper	8.26	1.00	2.00	ug/L	1	11/30/21 14:49	EPA 6020B	
Lead	1.10	0.110	0.200	ug/L	1	11/30/21 14:49	EPA 6020B	
Nickel	3.16	1.00	2.00	ug/L	1	11/30/21 14:49	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 14:49	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 14:49	EPA 6020B	
Vanadium	5.87	1.00	2.00	ug/L	1	11/30/21 14:49	EPA 6020B	
Zinc	8.02	2.00	4.00	ug/L	1	11/30/21 14:49	EPA 6020B	
GW-Dup-1-1121 (A1K0892-06RE1) Matrix: Water								
Batch: 21K1112								
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 12:03	EPA 6020B	
GW-Equipment-Blank-1121 (A1K0892-07) Matrix: Water								
Batch: 21K1112								
Arsenic	ND	0.500	1.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Barium	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 15:04	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	11/30/21 15:04	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 15:04	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	11/30/21 15:04	EPA 6020B	
GW-Equipment-Blank-1121 (A1K0892-07RE1) Matrix: Water								
Batch: 21K1112								
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 12:08	EPA 6020B	

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-01-1121 (A1K0892-01) Matrix: Water								
Batch: 21K0992								
Arsenic	1.39	0.500	1.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Barium	18.8	0.500	1.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Chromium	1.25	1.00	2.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	Ja
Cobalt	1.61	0.500	1.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Copper	4.20	1.00	2.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Lead	0.547	0.100	0.200	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Nickel	1.90	1.00	2.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	Ja
Selenium	1.24	0.500	1.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Vanadium	2.44	1.00	2.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Zinc	3.92	2.00	4.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	Ja
GW-PZ-01-1121 (A1K0892-01RE1) Matrix: Water								
Batch: 21K0992								
Beryllium	0.113	0.100	0.200	ug/L	1	12/13/21 16:49	EPA 6020B (Diss)	Ja
GW-PZ-02-1121 (A1K0892-02) Matrix: Water								
Batch: 21K0992								
Arsenic	2.11	0.500	1.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Barium	34.4	0.500	1.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Lead	0.374	0.100	0.200	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Vanadium	1.34	1.00	2.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	Ja
Zinc	ND	2.00	4.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
GW-PZ-02-1121 (A1K0892-02RE1) Matrix: Water								

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054**

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-02-1121 (A1K0892-02RE1)				Matrix: Water				
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:05	EPA 6020B (Diss)	
GW-PZ-03-1121 (A1K0892-03)				Matrix: Water				
Batch: 21K0992								
Arsenic	0.591	0.500	1.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	Ja
Barium	5.26	0.500	1.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Lead	0.166	0.100	0.200	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	Ja
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Vanadium	1.18	1.00	2.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Zinc	4.32	2.00	4.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
GW-PZ-03-1121 (A1K0892-03RE1)				Matrix: Water				
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:10	EPA 6020B (Diss)	
GW-PZ-04-1121 (A1K0892-04)				Matrix: Water				
Batch: 21K0992								
Arsenic	1.94	0.500	1.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	Ja
Barium	23.6	0.500	1.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Cobalt	0.810	0.500	1.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Lead	0.313	0.100	0.200	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054**

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-04-1121 (A1K0892-04)		Matrix: Water						
Vanadium	2.63	1.00	2.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Zinc	15.0	2.00	4.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
GW-PZ-04-1121 (A1K0892-04RE1)		Matrix: Water						
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:15	EPA 6020B (Diss)	
GW-PZ-05-1121 (A1K0892-05)		Matrix: Water						
Batch: 21K0992								
Arsenic	ND	0.500	1.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Barium	28.2	0.500	1.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Cobalt	0.862	0.500	1.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	Ja
Copper	2.38	1.00	2.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Nickel	1.95	1.00	2.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	Ja
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Zinc	20.2	2.00	4.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
GW-PZ-05-1121 (A1K0892-05RE1)		Matrix: Water						
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:20	EPA 6020B (Diss)	
GW-Dup-1-1121 (A1K0892-06)		Matrix: Water						
Batch: 21K0992								
Arsenic	2.04	0.500	1.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Barium	34.6	0.500	1.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Copper	1.06	1.00	2.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	Ja
Lead	0.135	0.100	0.200	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	Ja

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-Dup-1-1121 (A1K0892-06)				Matrix: Water				
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	Ja
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Vanadium	1.42	1.00	2.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
GW-Dup-1-1121 (A1K0892-06RE1)				Matrix: Water				
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:36	EPA 6020B (Diss)	
GW-Equipment-Blank-1121 (A1K0892-07)				Matrix: Water				
Batch: 21K0992								
Arsenic	ND	0.500	1.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Barium	ND	0.500	1.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)	
GW-Equipment-Blank-1121 (A1K0892-07RE1)				Matrix: Water				
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:41	EPA 6020B (Diss)	

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Philip Nerenberg, Lab Director

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503-718-2323

ORELAP ID: OR100062

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Hexavalent Chromium by IC

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-01-1121 (A1K0892-01)				Matrix: Water		Batch: W1L0025		
Batch: W1L0025								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	12/01/21 14:58	EPA 218.6	
Chromium 6+	0.012	0.0079	0.020	ug/l	1	12/01/21 14:46	EPA 218.6	J
GW-PZ-03-1121 (A1K0892-03)				Matrix: Water		Batch: W1L0025		
Batch: W1L0025								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	12/01/21 17:51	EPA 218.6	
Chromium 6+	0.035	0.0079	0.020	ug/l	1	12/01/21 17:39	EPA 218.6	
GW-PZ-04-1121 (A1K0892-04)				Matrix: Water		Batch: W1L0025		
Batch: W1L0025								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	12/01/21 18:15	EPA 218.6	
Chromium 6+	ND	0.0079	0.020	ug/l	1	12/01/21 18:03	EPA 218.6	
GW-PZ-05-1121 (A1K0892-05)				Matrix: Water		Batch: W1L0025		
Batch: W1L0025								
Chromium 6+, Dissolved	0.092	0.0079	0.020	ug/l	1	12/01/21 18:26	EPA 218.6	
GW-Dup-1-1121 (A1K0892-06)				Matrix: Water		Batch: W1L0025		
Batch: W1L0025								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	12/01/21 18:50	EPA 218.6	
Chromium 6+	ND	0.0079	0.020	ug/l	1	12/01/21 18:38	EPA 218.6	
GW-Equipment-Blank-1121 (A1K0892-07)				Matrix: Water		Batch: W1L0025		
Batch: W1L0025								
Chromium 6+, Dissolved	0.033	0.0079	0.020	ug/l	1	12/01/21 19:14	EPA 218.6	
Chromium 6+	0.032	0.0079	0.020	ug/l	1	12/01/21 19:02	EPA 218.6	

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0974 - EPA 3510C (Acid Extraction)						Water						
Blank (21K0974-BLK1)			Prepared: 11/23/21 07:25 Analyzed: 11/23/21 21:22									
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 77 %		Limits: 44-120 %		Dilution: 1x						
2-Fluorobiphenyl (Surr)		74 %		44-120 %		"						
Phenol-d6 (Surr)		28 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		85 %		50-134 %		"						
2-Fluorophenol (Surr)		45 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		90 %		43-140 %		"						
Q-41												

LCS (21K0974-BS1)

Prepared: 11/23/21 07:25 Analyzed: 11/23/21 21:57

EPA 8270E

Acenaphthene	3.02	0.0200	0.0400	ug/L	2	4.00	---	75	47-122%	---	---
Acenaphthylene	3.30	0.0200	0.0400	ug/L	2	4.00	---	82	41-130%	---	---

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Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0974 - EPA 3510C (Acid Extraction)						Water						
LCS (21K0974-BS1)			Prepared: 11/23/21 07:25		Analyzed: 11/23/21 21:57							
Anthracene	3.30	0.0200	0.0400	ug/L	2	4.00	---	83	57-123%	---	---	
Benz(a)anthracene	3.36	0.0200	0.0400	ug/L	2	4.00	---	84	58-125%	---	---	
Benzo(a)pyrene	3.54	0.0300	0.0600	ug/L	2	4.00	---	88	54-128%	---	---	
Benzo(b)fluoranthene	3.52	0.0300	0.0600	ug/L	2	4.00	---	88	53-131%	---	---	
Benzo(k)fluoranthene	3.43	0.0300	0.0600	ug/L	2	4.00	---	86	57-129%	---	---	
Benzo(g,h,i)perylene	3.48	0.0200	0.0400	ug/L	2	4.00	---	87	50-134%	---	---	
Chrysene	3.32	0.0200	0.0400	ug/L	2	4.00	---	83	59-123%	---	---	
Dibenz(a,h)anthracene	3.57	0.0200	0.0400	ug/L	2	4.00	---	89	51-134%	---	---	
Fluoranthene	3.47	0.0200	0.0400	ug/L	2	4.00	---	87	57-128%	---	---	
Fluorene	3.15	0.0200	0.0400	ug/L	2	4.00	---	79	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.11	0.0200	0.0400	ug/L	2	4.00	---	78	52-134%	---	---	
1-Methylnaphthalene	2.93	0.0400	0.0800	ug/L	2	4.00	---	73	41-120%	---	---	
2-Methylnaphthalene	2.77	0.0400	0.0800	ug/L	2	4.00	---	69	40-121%	---	---	
Naphthalene	2.83	0.0400	0.0800	ug/L	2	4.00	---	71	40-121%	---	---	
Phenanthrene	3.17	0.0200	0.0400	ug/L	2	4.00	---	79	59-120%	---	---	
Pyrene	3.46	0.0200	0.0400	ug/L	2	4.00	---	87	57-126%	---	---	
Carbazole	3.82	0.0300	0.0600	ug/L	2	4.00	---	96	60-122%	---	---	
Dibenzofuran	3.01	0.0200	0.0400	ug/L	2	4.00	---	75	53-120%	---	---	
Pentachlorophenol (PCP)	3.50	0.200	0.400	ug/L	2	4.00	---	87	35-138%	---	---	
Bis(2-ethylhexyl)phthalate	3.29	0.400	0.800	ug/L	2	4.00	---	82	55-135%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 88 %		Limits: 44-120 %		Dilution: 2x						
2-Fluorobiphenyl (Surr)		79 %		44-120 %		"						
Phenol-d6 (Surr)		32 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		88 %		50-134 %		"						
2-Fluorophenol (Surr)		51 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		104 %		43-140 %		"						
												Q-41

Q-41

LCS Dup (21K0974-BS1)

Prepared: 11/23/21 07:25 Analyzed: 11/23/21 22:31

Q-19

EPA 8270E

Acenaphthene	2.73	0.0200	0.0400	ug/L	2	4.00	---	68	47-122%	10	30%
Acenaphthylene	2.91	0.0200	0.0400	ug/L	2	4.00	---	73	41-130%	12	30%
Anthracene	3.39	0.0200	0.0400	ug/L	2	4.00	---	85	57-123%	3	30%
Benz(a)anthracene	3.52	0.0200	0.0400	ug/L	2	4.00	---	88	58-125%	5	30%
Benzo(a)pyrene	3.61	0.0300	0.0600	ug/L	2	4.00	---	90	54-128%	2	30%

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0974 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (21K0974-BSD1)						Prepared: 11/23/21 07:25 Analyzed: 11/23/21 22:31						Q-19
Benzo(b)fluoranthene	3.60	0.0300	0.0600	ug/L	2	4.00	---	90	53-131%	2	30%	
Benzo(k)fluoranthene	3.56	0.0300	0.0600	ug/L	2	4.00	---	89	57-129%	4	30%	
Benzo(g,h,i)perylene	3.59	0.0200	0.0400	ug/L	2	4.00	---	90	50-134%	3	30%	
Chrysene	3.46	0.0200	0.0400	ug/L	2	4.00	---	86	59-123%	4	30%	
Dibenz(a,h)anthracene	3.53	0.0200	0.0400	ug/L	2	4.00	---	88	51-134%	1	30%	
Fluoranthene	3.57	0.0200	0.0400	ug/L	2	4.00	---	89	57-128%	3	30%	
Fluorene	2.94	0.0200	0.0400	ug/L	2	4.00	---	73	52-124%	7	30%	
Indeno(1,2,3-cd)pyrene	3.23	0.0200	0.0400	ug/L	2	4.00	---	81	52-134%	4	30%	
1-Methylnaphthalene	2.38	0.0400	0.0800	ug/L	2	4.00	---	60	41-120%	21	30%	
2-Methylnaphthalene	2.26	0.0400	0.0800	ug/L	2	4.00	---	57	40-121%	20	30%	
Naphthalene	2.16	0.0400	0.0800	ug/L	2	4.00	---	54	40-121%	27	30%	
Phenanthrene	3.26	0.0200	0.0400	ug/L	2	4.00	---	81	59-120%	3	30%	
Pyrene	3.52	0.0200	0.0400	ug/L	2	4.00	---	88	57-126%	2	30%	
Carbazole	3.92	0.0300	0.0600	ug/L	2	4.00	---	98	60-122%	3	30%	
Dibenzofuran	2.73	0.0200	0.0400	ug/L	2	4.00	---	68	53-120%	10	30%	
Pentachlorophenol (PCP)	3.42	0.200	0.400	ug/L	2	4.00	---	86	35-138%	2	30%	
Bis(2-ethylhexyl)phthalate	3.41	0.400	0.800	ug/L	2	4.00	---	85	55-135%	4	30%	
Surr: Nitrobenzene-d5 (Surr) Recovery: 64 % Limits: 44-120 % Dilution: 2x												
2-Fluorobiphenyl (Surr) 63 % 44-120 % "												
Phenol-d6 (Surr) 22 % 10-133 % "												
p-Terphenyl-d14 (Surr) 87 % 50-134 % "												
2-Fluorophenol (Surr) 34 % 19-120 % "												
2,4,6-Tribromophenol (Surr) 101 % 43-140 % "												
											Q-41	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0864 - EPA 3015A						Water						
Blank (21K0864-BLK1)				Prepared: 11/19/21 09:02		Analyzed: 11/24/21 06:13						
EPA 6020B												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	Q-41
Barium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.110	0.200	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	Q-41
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Blank (21K0864-BLK2)				Prepared: 11/19/21 09:02		Analyzed: 11/29/21 14:14						
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
LCS (21K0864-BS1)				Prepared: 11/19/21 09:02		Analyzed: 11/24/21 06:33						
EPA 6020B												
Arsenic	56.7	0.500	1.00	ug/L	1	55.6	---	102	80-120%	---	---	Q-41
Barium	51.5	1.00	2.00	ug/L	1	55.6	---	93	80-120%	---	---	
Cadmium	54.7	0.100	0.200	ug/L	1	55.6	---	98	80-120%	---	---	
Chromium	52.4	1.00	2.00	ug/L	1	55.6	---	94	80-120%	---	---	
Cobalt	53.2	0.500	1.00	ug/L	1	55.6	---	96	80-120%	---	---	
Copper	55.2	1.00	2.00	ug/L	1	55.6	---	99	80-120%	---	---	
Lead	54.4	0.110	0.200	ug/L	1	55.6	---	98	80-120%	---	---	
Nickel	55.3	1.00	2.00	ug/L	1	55.6	---	99	80-120%	---	---	
Selenium	25.2	0.500	1.00	ug/L	1	27.8	---	91	80-120%	---	---	
Thallium	27.0	0.100	0.200	ug/L	1	27.8	---	97	80-120%	---	---	
Vanadium	52.2	1.00	2.00	ug/L	1	55.6	---	94	80-120%	---	---	
Zinc	54.4	2.00	4.00	ug/L	1	55.6	---	98	80-120%	---	---	
LCS (21K0864-BS2)				Prepared: 11/19/21 09:02		Analyzed: 11/29/21 14:20						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0864 - EPA 3015A						Water						
LCS (21K0864-BS2)			Prepared: 11/19/21 09:02		Analyzed: 11/29/21 14:20							
EPA 6020B												
Beryllium	31.1	0.100	0.200	ug/L	1	27.8	---	112	80-120%	---	---	Q-16
Duplicate (21K0864-DUP1)			Prepared: 11/19/21 09:02		Analyzed: 11/24/21 06:43							
QC Source Sample: Non-SDG (A1K0439-01)												
Arsenic	1.81	0.500	1.00	ug/L	1	---	1.88	---	---	4	20%	Ja
Barium	192	1.00	2.00	ug/L	1	---	196	---	---	2	20%	
Cadmium	0.529	0.100	0.200	ug/L	1	---	0.519	---	---	2	20%	
Chromium	1.13	1.00	2.00	ug/L	1	---	1.24	---	---	9	20%	
Cobalt	13.3	0.500	1.00	ug/L	1	---	13.4	---	---	0.5	20%	
Copper	3.13	1.00	2.00	ug/L	1	---	3.24	---	---	4	20%	Q-41
Lead	1.09	0.110	0.200	ug/L	1	---	1.16	---	---	7	20%	
Nickel	9.36	1.00	2.00	ug/L	1	---	9.44	---	---	0.9	20%	
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	11.5	1.00	2.00	ug/L	1	---	11.8	---	---	2	20%	Q-41
Zinc	9.65	2.00	4.00	ug/L	1	---	10.3	---	---	6	20%	
Duplicate (21K0864-DUP2)			Prepared: 11/19/21 09:02		Analyzed: 11/29/21 14:29							
QC Source Sample: Non-SDG (A1K0439-01RE1)												
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	Q-16
Matrix Spike (21K0864-MS1)			Prepared: 11/19/21 09:02		Analyzed: 11/24/21 06:48							
QC Source Sample: Non-SDG (A1K0439-01)												
EPA 6020B												
Arsenic	59.9	0.500	1.00	ug/L	1	55.6	1.88	104	75-125%	---	---	
Barium	244	1.00	2.00	ug/L	1	55.6	196	86	75-125%	---	---	
Cadmium	55.8	0.100	0.200	ug/L	1	55.6	0.519	100	75-125%	---	---	
Chromium	53.6	1.00	2.00	ug/L	1	55.6	1.24	94	75-125%	---	---	
Cobalt	64.8	0.500	1.00	ug/L	1	55.6	13.4	93	75-125%	---	---	
Copper	55.3	1.00	2.00	ug/L	1	55.6	3.24	94	75-125%	---	---	
Lead	54.0	0.110	0.200	ug/L	1	55.6	1.16	95	75-125%	---	---	
Nickel	61.6	1.00	2.00	ug/L	1	55.6	9.44	94	75-125%	---	---	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0864 - EPA 3015A						Water						
Matrix Spike (21K0864-MS1)			Prepared: 11/19/21 09:02		Analyzed: 11/24/21 06:48							
QC Source Sample: Non-SDG (A1K0439-01)												
Selenium	27.4	0.500	1.00	ug/L	1	27.8	ND	99	75-125%	---	---	Q-41
Thallium	26.6	0.100	0.200	ug/L	1	27.8	ND	96	75-125%	---	---	
Vanadium	65.8	1.00	2.00	ug/L	1	55.6	11.8	97	75-125%	---	---	
Zinc	62.0	2.00	4.00	ug/L	1	55.6	10.3	93	75-125%	---	---	
Matrix Spike (21K0864-MS2)			Prepared: 11/19/21 09:02		Analyzed: 11/29/21 14:34							
QC Source Sample: Non-SDG (A1K0439-01RE1)												
EPA 6020B												
Beryllium	31.7	0.100	0.200	ug/L	1	27.8	ND	114	75-125%	---	---	Q-16

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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1112 - EPA 3015A						Water						
Blank (21K1112-BLK1)				Prepared: 11/29/21 09:33		Analyzed: 11/30/21 13:43						
EPA 6020B												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.110	0.200	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Blank (21K1112-BLK2)				Prepared: 11/29/21 09:33		Analyzed: 12/01/21 11:18						
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
LCS (21K1112-BS1)				Prepared: 11/29/21 09:33		Analyzed: 11/30/21 13:48						
EPA 6020B												
Arsenic	58.5	0.500	1.00	ug/L	1	55.6	---	105	80-120%	---	---	
Barium	56.7	1.00	2.00	ug/L	1	55.6	---	102	80-120%	---	---	
Cadmium	56.7	0.100	0.200	ug/L	1	55.6	---	102	80-120%	---	---	
Chromium	55.1	1.00	2.00	ug/L	1	55.6	---	99	80-120%	---	---	
Cobalt	56.0	0.500	1.00	ug/L	1	55.6	---	101	80-120%	---	---	
Copper	59.2	1.00	2.00	ug/L	1	55.6	---	107	80-120%	---	---	
Lead	55.8	0.110	0.200	ug/L	1	55.6	---	100	80-120%	---	---	
Nickel	58.4	1.00	2.00	ug/L	1	55.6	---	105	80-120%	---	---	
Selenium	26.9	0.500	1.00	ug/L	1	27.8	---	97	80-120%	---	---	
Thallium	27.8	0.100	0.200	ug/L	1	27.8	---	100	80-120%	---	---	
Vanadium	56.5	1.00	2.00	ug/L	1	55.6	---	102	80-120%	---	---	
Zinc	58.4	2.00	4.00	ug/L	1	55.6	---	105	80-120%	---	---	
LCS (21K1112-BS2)				Prepared: 11/29/21 09:33		Analyzed: 12/01/21 11:23						

Apex Laboratories

Philip Nerenberg, Lab Director

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Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1112 - EPA 3015A						Water						
LCS (21K1112-BS2)			Prepared: 11/29/21 09:33			Analyzed: 12/01/21 11:23						
EPA 6020B												
Beryllium	26.3	0.100	0.200	ug/L	1	27.8	---	95	80-120%	---	---	Q-16
Duplicate (21K1112-DUP1)			Prepared: 11/29/21 09:33			Analyzed: 11/30/21 14:28						
QC Source Sample: GW-PZ-03-1121 (A1K0892-03)												
EPA 6020B												
Arsenic	0.528	0.500	1.00	ug/L	1	---	0.602	---	---	13	20%	Ja
Barium	6.91	1.00	2.00	ug/L	1	---	7.01	---	---	1	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Cobalt	0.525	0.500	1.00	ug/L	1	---	0.541	---	---	3	20%	Ja
Copper	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Lead	0.569	0.110	0.200	ug/L	1	---	0.596	---	---	5	20%	
Nickel	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	1.22	1.00	2.00	ug/L	1	---	1.12	---	---	8	20%	Ja
Zinc	8.22	2.00	4.00	ug/L	1	---	7.95	---	---	3	20%	
Duplicate (21K1112-DUP2)			Prepared: 11/29/21 09:33			Analyzed: 12/01/21 11:33						
QC Source Sample: GW-PZ-03-1121 (A1K0892-03RE1)												
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	Q-16
Matrix Spike (21K1112-MS1)			Prepared: 11/29/21 09:33			Analyzed: 11/30/21 14:34						
QC Source Sample: GW-PZ-03-1121 (A1K0892-03)												
EPA 6020B												
Arsenic	58.1	0.500	1.00	ug/L	1	55.6	0.602	103	75-125%	---	---	
Barium	62.1	1.00	2.00	ug/L	1	55.6	7.01	99	75-125%	---	---	
Cadmium	55.5	0.100	0.200	ug/L	1	55.6	ND	100	75-125%	---	---	
Chromium	53.7	1.00	2.00	ug/L	1	55.6	ND	97	75-125%	---	---	
Cobalt	55.2	0.500	1.00	ug/L	1	55.6	0.541	98	75-125%	---	---	
Copper	59.0	1.00	2.00	ug/L	1	55.6	ND	106	75-125%	---	---	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1112 - EPA 3015A						Water						
Matrix Spike (21K1112-MS1)			Prepared: 11/29/21 09:33		Analyzed: 11/30/21 14:34							
QC Source Sample: GW-PZ-03-1121 (A1K0892-03)												
Lead	54.4	0.110	0.200	ug/L	1	55.6	0.596	97	75-125%	---	---	
Nickel	57.3	1.00	2.00	ug/L	1	55.6	ND	103	75-125%	---	---	
Selenium	26.2	0.500	1.00	ug/L	1	27.8	ND	94	75-125%	---	---	
Thallium	27.0	0.100	0.200	ug/L	1	27.8	ND	97	75-125%	---	---	
Vanadium	56.7	1.00	2.00	ug/L	1	55.6	1.12	100	75-125%	---	---	
Zinc	65.5	2.00	4.00	ug/L	1	55.6	7.95	104	75-125%	---	---	
Matrix Spike (21K1112-MS2)			Prepared: 11/29/21 09:33		Analyzed: 12/01/21 11:38							
QC Source Sample: GW-PZ-03-1121 (A1K0892-03RE1)												
EPA 6020B												
Beryllium	27.1	0.100	0.200	ug/L	1	27.8	ND	98	75-125%	---	---	Q-16

Apex Laboratories

Philip Nerenberg, Lab Director

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A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0992 - Matrix Matched Direct Inject						Water						
Blank (21K0992-BLK1)			Prepared: 11/23/21 09:47 Analyzed: 11/30/21 17:29									
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Calcium	ND	300	600	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Blank (21K0992-BLK2)												
Prepared: 11/23/21 09:47 Analyzed: 12/13/21 16:38												
EPA 6020B (Diss)												
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
LCS (21K0992-BS1)												
Prepared: 11/23/21 09:47 Analyzed: 11/30/21 17:34												
EPA 6020B (Diss)												
Arsenic	56.8	0.500	1.00	ug/L	1	55.6	---	102	80-120%	---	---	
Barium	55.7	0.500	1.00	ug/L	1	55.6	---	100	80-120%	---	---	
Cadmium	55.3	0.100	0.200	ug/L	1	55.6	---	100	80-120%	---	---	
Calcium	2890	300	600	ug/L	1	2780	---	104	80-120%	---	---	
Chromium	53.8	1.00	2.00	ug/L	1	55.6	---	97	80-120%	---	---	
Cobalt	55.7	0.500	1.00	ug/L	1	55.6	---	100	80-120%	---	---	
Copper	60.2	1.00	2.00	ug/L	1	55.6	---	108	80-120%	---	---	
Lead	55.7	0.100	0.200	ug/L	1	55.6	---	100	80-120%	---	---	
Nickel	57.1	1.00	2.00	ug/L	1	55.6	---	103	80-120%	---	---	
Selenium	27.1	0.500	1.00	ug/L	1	27.8	---	98	80-120%	---	---	
Thallium	27.6	0.100	0.200	ug/L	1	27.8	---	99	80-120%	---	---	
Vanadium	56.5	1.00	2.00	ug/L	1	55.6	---	102	80-120%	---	---	
Zinc	57.5	2.00	4.00	ug/L	1	55.6	---	103	80-120%	---	---	

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Philip Nerenberg, Lab Director



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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0992 - Matrix Matched Direct Inject						Water						
LCS (21K0992-BS2)			Prepared: 11/23/21 09:47 Analyzed: 12/13/21 16:44									
<u>EPA 6020B (Diss)</u>												
Beryllium	24.4	0.100	0.200	ug/L	1	27.8	---	88	80-120%	---	---	Q-16
Duplicate (21K0992-DUP1)			Prepared: 11/23/21 09:47 Analyzed: 11/30/21 17:44									
<u>QC Source Sample: GW-PZ-01-1121 (A1K0892-01)</u>												
<u>EPA 6020B (Diss)</u>												
Arsenic	1.29	0.500	1.00	ug/L	1	---	1.39	---	---	8	20%	Ja
Barium	18.9	0.500	1.00	ug/L	1	---	18.8	---	---	0.8	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Calcium	17000	300	600	ug/L	1	---	16700	---	---	2	20%	
Chromium	1.12	1.00	2.00	ug/L	1	---	1.25	---	---	11	20%	Ja
Cobalt	1.60	0.500	1.00	ug/L	1	---	1.61	---	---	0.6	20%	
Copper	3.77	1.00	2.00	ug/L	1	---	4.20	---	---	11	20%	
Lead	0.544	0.100	0.200	ug/L	1	---	0.547	---	---	0.5	20%	
Nickel	1.91	1.00	2.00	ug/L	1	---	1.90	---	---	0.5	20%	Ja
Selenium	1.33	0.500	1.00	ug/L	1	---	1.24	---	---	7	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	2.41	1.00	2.00	ug/L	1	---	2.44	---	---	1	20%	
Zinc	3.99	2.00	4.00	ug/L	1	---	3.92	---	---	2	20%	Ja
Duplicate (21K0992-DUP2)			Prepared: 11/23/21 09:47 Analyzed: 12/13/21 16:54									
<u>QC Source Sample: GW-PZ-01-1121 (A1K0892-01RE1)</u>												
<u>EPA 6020B (Diss)</u>												
Beryllium	0.105	0.100	0.200	ug/L	1	---	0.113	---	---	7	20%	Ja, Q-16
Matrix Spike (21K0992-MS1)			Prepared: 11/23/21 09:47 Analyzed: 11/30/21 17:49									
<u>QC Source Sample: GW-PZ-01-1121 (A1K0892-01)</u>												
<u>EPA 6020B (Diss)</u>												
Arsenic	59.0	0.500	1.00	ug/L	1	55.6	1.39	104	75-125%	---	---	
Barium	74.0	0.500	1.00	ug/L	1	55.6	18.8	99	75-125%	---	---	
Cadmium	55.1	0.100	0.200	ug/L	1	55.6	ND	99	75-125%	---	---	
Calcium	18900	300	600	ug/L	1	2780	16700	81	75-125%	---	---	

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Philip Nerenberg, Lab Director



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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0992 - Matrix Matched Direct Inject						Water						
Matrix Spike (21K0992-MS1)				Prepared: 11/23/21 09:47		Analyzed: 11/30/21 17:49						
QC Source Sample: GW-PZ-01-1121 (A1K0892-01)												
Chromium	54.0	1.00	2.00	ug/L	1	55.6	1.25	95	75-125%	---	---	
Cobalt	55.7	0.500	1.00	ug/L	1	55.6	1.61	97	75-125%	---	---	
Copper	60.9	1.00	2.00	ug/L	1	55.6	4.20	102	75-125%	---	---	
Lead	53.5	0.100	0.200	ug/L	1	55.6	0.547	95	75-125%	---	---	
Nickel	57.0	1.00	2.00	ug/L	1	55.6	1.90	99	75-125%	---	---	
Selenium	28.0	0.500	1.00	ug/L	1	27.8	1.24	96	75-125%	---	---	
Thallium	26.9	0.100	0.200	ug/L	1	27.8	ND	97	75-125%	---	---	
Vanadium	57.9	1.00	2.00	ug/L	1	55.6	2.44	100	75-125%	---	---	
Zinc	59.4	2.00	4.00	ug/L	1	55.6	3.92	100	75-125%	---	---	
Matrix Spike (21K0992-MS2)				Prepared: 11/23/21 09:47		Analyzed: 12/13/21 16:59						
QC Source Sample: GW-PZ-01-1121 (A1K0892-01RE1)												
EPA 6020B (Diss)												
Beryllium	26.3	0.100	0.200	ug/L	1	27.8	0.113	94	75-125%	---	---	Q-16

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Project Manager: Josh Bale

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Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

Hexavalent Chromium by IC

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W1L0025 - _NONE (LC)						Water						
Blank (W1L0025-BLK1)			Prepared: 12/01/21 09:43		Analyzed: 12/01/21 12:08							
EPA 218.6												
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	---	---	---	---	---	---	
Chromium 6+	ND	0.0079	0.020	ug/l	1	---	---	---	---	---	---	
LCS (W1L0025-BS1)			Prepared: 12/01/21 09:43		Analyzed: 12/01/21 12:20							
EPA 218.6												
Chromium 6+, Dissolved	5.16	0.0079	0.020	ug/l	1	5.00	---	103	90-110%	---	---	
Chromium 6+	5.16	0.0079	0.020	ug/l	1	5.00	---	103	90-110%	---	---	
Matrix Spike (W1L0025-MS1)			Prepared: 12/01/21 09:43		Analyzed: 12/01/21 12:37							
QC Source Sample: A1K0892-04 (A1K0892-04)												
EPA 218.6												
Chromium 6+, Dissolved	5.29	0.0079	0.020	ug/l	1	5.00	ND	106	88-112%	---	---	
Chromium 6+	5.29	0.0079	0.020	ug/l	1	5.00	ND	106	88-112%	---	---	
Matrix Spike (W1L0025-MS2)			Prepared: 12/01/21 09:43		Analyzed: 12/01/21 13:00							
QC Source Sample: A1K0892-06 (A1K0892-06)												
EPA 218.6												
Chromium 6+, Dissolved	5.26	0.0079	0.020	ug/l	1	5.00	ND	105	88-112%	---	---	
Chromium 6+	5.26	0.0079	0.020	ug/l	1	5.00	ND	105	88-112%	---	---	
Matrix Spike Dup (W1L0025-MSD1)			Prepared: 12/01/21 09:43		Analyzed: 12/01/21 12:48							
QC Source Sample: A1K0892-04 (A1K0892-04)												
EPA 218.6												
Chromium 6+, Dissolved	5.35	0.0079	0.020	ug/l	1	5.00	ND	107	88-112%	1	10%	
Chromium 6+	5.35	0.0079	0.020	ug/l	1	5.00	ND	107	88-112%	1	10%	
Matrix Spike Dup (W1L0025-MSD2)			Prepared: 12/01/21 09:43		Analyzed: 12/01/21 13:12							
QC Source Sample: A1K0892-06 (A1K0892-06)												
EPA 218.6												

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Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

Hexavalent Chromium by IC

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W1L0025 - _NONE (LC)							Water					
Matrix Spike Dup (W1L0025-MSD2)			Prepared: 12/01/21 09:43		Analyzed: 12/01/21 13:12							
QC Source Sample: A1K0892-06 (A1K0892-06)												
Chromium 6+, Dissolved	5.39	0.0079	0.020	ug/l	1	5.00	ND	108	88-112%	2	10%	
Chromium 6+	5.39	0.0079	0.020	ug/l	1	5.00	ND	108	88-112%	2	10%	

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Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054**

SAMPLE PREPARATION INFORMATION

Selected Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 21K0974							
A1K0892-01	Water	EPA 8270E	11/17/21 17:40	11/23/21 07:25	880mL/1mL	1000mL/1mL	1.14
A1K0892-02	Water	EPA 8270E	11/17/21 15:35	11/23/21 07:25	890mL/1mL	1000mL/1mL	1.12
A1K0892-03	Water	EPA 8270E	11/17/21 12:05	11/23/21 07:25	860mL/1mL	1000mL/1mL	1.16
A1K0892-04	Water	EPA 8270E	11/17/21 10:32	11/23/21 07:25	880mL/1mL	1000mL/1mL	1.14
A1K0892-06	Water	EPA 8270E	11/17/21 15:40	11/23/21 07:25	960mL/1mL	1000mL/1mL	1.04
A1K0892-07	Water	EPA 8270E	11/17/21 18:10	11/23/21 07:25	1020mL/1mL	1000mL/1mL	0.98

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 21K0864							
A1K0892-01	Water	EPA 6020B	11/17/21 17:40	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-01RE1	Water	EPA 6020B	11/17/21 17:40	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-01RE2	Water	EPA 6020B	11/17/21 17:40	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-02	Water	EPA 6020B	11/17/21 15:35	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-02RE1	Water	EPA 6020B	11/17/21 15:35	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-02RE2	Water	EPA 6020B	11/17/21 15:35	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
Batch: 21K1112							
A1K0892-03	Water	EPA 6020B	11/17/21 12:05	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-03RE1	Water	EPA 6020B	11/17/21 12:05	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-04	Water	EPA 6020B	11/17/21 10:32	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-04RE1	Water	EPA 6020B	11/17/21 10:32	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-05	Water	EPA 6020B	11/17/21 16:00	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-05RE1	Water	EPA 6020B	11/17/21 16:00	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-06	Water	EPA 6020B	11/17/21 15:40	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-06RE1	Water	EPA 6020B	11/17/21 15:40	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-07	Water	EPA 6020B	11/17/21 18:10	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-07RE1	Water	EPA 6020B	11/17/21 18:10	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00

Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 21K0992							
A1K0892-01	Water	EPA 6020B (Diss)	11/17/21 17:40	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00

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Philip Nerenberg, Lab Director

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Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A1K0892-01RE1	Water	EPA 6020B (Diss)	11/17/21 17:40	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-02	Water	EPA 6020B (Diss)	11/17/21 15:35	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-02RE1	Water	EPA 6020B (Diss)	11/17/21 15:35	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-03	Water	EPA 6020B (Diss)	11/17/21 12:05	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-03RE1	Water	EPA 6020B (Diss)	11/17/21 12:05	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-04	Water	EPA 6020B (Diss)	11/17/21 10:32	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-04RE1	Water	EPA 6020B (Diss)	11/17/21 10:32	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-05	Water	EPA 6020B (Diss)	11/17/21 16:00	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-05RE1	Water	EPA 6020B (Diss)	11/17/21 16:00	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-06	Water	EPA 6020B (Diss)	11/17/21 15:40	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-06RE1	Water	EPA 6020B (Diss)	11/17/21 15:40	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-07	Water	EPA 6020B (Diss)	11/17/21 18:10	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-07RE1	Water	EPA 6020B (Diss)	11/17/21 18:10	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054****Weck Laboratories, Inc.****SAMPLE PREPARATION INFORMATION****Hexavalent Chromium by IC**Prep: **NONE (LC)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: W1L0025							
A1K0892-01	Water	EPA 218.6	11/17/21 17:40	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-01	Water	EPA 218.6	11/17/21 17:40	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00
A1K0892-03	Water	EPA 218.6	11/17/21 12:05	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-03	Water	EPA 218.6	11/17/21 12:05	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00
A1K0892-04	Water	EPA 218.6	11/17/21 10:32	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-04	Water	EPA 218.6	11/17/21 10:32	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00
A1K0892-05	Water	EPA 218.6	11/17/21 16:00	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-06	Water	EPA 218.6	11/17/21 15:40	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-06	Water	EPA 218.6	11/17/21 15:40	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00
A1K0892-07	Water	EPA 218.6	11/17/21 18:10	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-07	Water	EPA 218.6	11/17/21 18:10	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00

Apex Laboratories

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Portland, OR 97209

Project: Eatonville

Project Number: 0171.067

Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- Ja** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.

Weck Laboratories, Inc.

- J** Estimated conc. detected <MRL and >MDL.

Apex Laboratories

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054****REPORTING NOTES AND CONVENTIONS:****Abbreviations:**

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054****REPORTING NOTES AND CONVENTIONS (Cont.):****Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:**Mixed Matrix Samples:****Water Samples:**

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale****Report ID:****A1K0892 - 04 25 23 1054****LABORATORY ACCREDITATION INFORMATION****ORELAP Certification ID: OR100062 (Primary Accreditation)** -**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 0171.067Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

Lab # A1K0892 ... COC 1 of 1

CHAIN OF CUSTODY

APEX LABS

6700 SW Sandburg St, Tigard, OR 97223 Ph: 503-718-2323

Company: GSI Water Solutions	Project Mgr: Josh Bale	Project Name: Eatonville Landfill	Project #: 0171.067
Address: 55 SW Yamhill Street, Suite 300, Portland OR 97204	Phone: 530.276.4188	Email: j.bale@gsws.com	PO #
Sampled by: J. Sherrod			
Site Location:	OR <u>WA</u> <u>CA</u>	AK ID _____	
SAMPLE ID	LAB ID #	DATE	TIME
GW-PZ-01-1121		1/17/2021	17:40
GW-PZ-02-1121		1/17/2021	15:35
GW-PZ-03-1121		1/17/2021	12:05
GW-PZ-04-1121		1/17/2021	10:32
GW-PZ-05-1121		1/17/2021	16:00
GW-Dup-1-1121		1/17/2021	15:40
GW-Equipment-Blank-1121		1/17/2021	18:10
GW-Trip-Blank-1121		1/17/2021	0:55:56
TAT Requested (circle) 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____			
Normal Turn Around Time (TAT) = 10 Business Days			
SPECIAL INSTRUCTIONS:			
Archive			
ANALYSIS REQUEST			
Cu, Pb, Bi, Sb, Cd, Cr, Cl, H, I, Li, Mn, Ni, P, Se, Si, Ti, V, Zn, Total			
PAHs by 8270E			
NMEPH + NWVPH			
# OF CONTAINERS			
MATRIX			
AQ 15			
AQ 15			
AQ 15			
AQ 15			
AQ 9			
AQ 15			
AQ 15			
AQ 1			
RECEIVED BY: Signature: Date: Time: Company:			
RELINQUISHED BY: Signature: Date: Time: Company:			

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 0171.067Project Manager: Josh Bale

Report ID:

A1K0892 - 04 25 23 1054

APEX LABS COOLER RECEIPT FORM

Client: GSI Water Solutions Element WO#: A1 K0892Project/Project #: Eatonville Pandfill / 0171.067

Delivery Info:

Date/time received: 11/18/21 @ 1046 By: ECDelivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 11/18/21 @ 1046 By: ECChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>1.6</u>	<u>2.1</u>	<u>1.3</u>	<u>0.8</u>			
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>			
Temp. blanks? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>			
Ice type: (Gel/Real/Other)	<u>real</u>	<u>real</u>	<u>real</u>	<u>real</u>			
Condition:	<u>good</u>	<u>good</u>	<u>good</u>	<u>good</u>			

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 11/18/21 @ 1220 By: ECAll samples intact? Yes ☒ No ☐ Comments: @ 11/18/21Bottle labels/COCs agree? Yes ☒ No ☒ Comments: time on trip blank reads 0800, ID reads Trip-blank u21, CoC lists 9 containers for GW-PZ-05-1121, received 4COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: Do VOA vials have visible headspace? Yes ☐ No ☒ NA ☐Comments: Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐Comments:

Additional information:

Subsampled by: ECWitnessed by: HASLabeled by: EC

Witness:

HAS

Cooler Inspected by:

EC

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Tuesday, April 25, 2023

Josh Bale

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

RE: A2B0202 - Eatonville - 00171.067

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2B0202, which was received by the laboratory on 2/5/2022 at 11:15:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	0.8 degC	Cooler #2	2.9 degC
Cooler #3	1.5 degC	Cooler #4	2.1 degC
Cooler #5	0.6 degC	Cooler #6	0.4 degC
Cooler #7	0.6 degC	Cooler #8	0.4 degC
Cooler #9	0.8 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-01-Comp-0.5-1.0_0222	A2B0202-01	Soil	02/04/22 17:00	02/05/22 11:15
HA-01-Comp-1.0-2.0_0222	A2B0202-02	Soil	02/04/22 17:05	02/05/22 11:15
HA-02-Comp-0.5-1.0_0222	A2B0202-03	Soil	02/03/22 16:06	02/05/22 11:15
HA-02-Comp-1.0-2.0_0222	A2B0202-04	Soil	02/03/22 16:04	02/05/22 11:15
HA-102-Comp-0.5-1.0_0222	A2B0202-05	Soil	02/03/22 16:10	02/05/22 11:15
HA-102-Comp-1.0-2.0_0222	A2B0202-06	Soil	02/03/22 16:11	02/05/22 11:15
HA-03-Comp-0.5-1.0_0222	A2B0202-07	Soil	02/03/22 13:16	02/05/22 11:15
HA-03-Comp-1.0-2.0_0222	A2B0202-08	Soil	02/03/22 13:33	02/05/22 11:15
HA-04-Comp-0.0-0.5_0222	A2B0202-09	Soil	02/01/22 16:30	02/05/22 11:15
HA-04-Comp-0.5-1.0_0222	A2B0202-10	Soil	02/01/22 16:40	02/05/22 11:15
HA-04-Comp-1.0-2.0_0222	A2B0202-11	Soil	02/01/22 16:50	02/05/22 11:15
HA-05-Comp-0.0-0.5_0222	A2B0202-12	Soil	02/01/22 12:20	02/05/22 11:15
HA-05-Comp-0.5-1.0_0222	A2B0202-13	Soil	02/01/22 12:35	02/05/22 11:15
HA-05-Comp-1.0-2.0_0222	A2B0202-14	Soil	02/01/22 12:45	02/05/22 11:15
HA-01A-0.0-0.5_0222	A2B0202-15	Soil	02/03/22 16:25	02/05/22 11:15
HA-01B-0.0-0.5_0222	A2B0202-16	Soil	02/03/22 16:45	02/05/22 11:15
HA-01C-0.0-0.5_0222	A2B0202-17	Soil	02/04/22 15:00	02/05/22 11:15
HA-01D-0.0-0.5_0222	A2B0202-18	Soil	02/04/22 15:15	02/05/22 11:15
HA-01E-0.0-0.5_0222	A2B0202-19	Soil	02/04/22 15:35	02/05/22 11:15
HA-02A-0.0-0.5_0222	A2B0202-20	Soil	02/03/22 16:00	02/05/22 11:15
HA-02B-0.0-0.5_0222	A2B0202-21	Soil	02/03/22 15:45	02/05/22 11:15
HA-02C-0.0-0.5_0222	A2B0202-22	Soil	02/03/22 15:10	02/05/22 11:15
HA-02D-0.0-0.5_0222	A2B0202-23	Soil	02/03/22 14:40	02/05/22 11:15
HA-02E-0.0-0.5_0222	A2B0202-24	Soil	02/03/22 14:00	02/05/22 11:15
HA-03A-0.0-0.5_0222	A2B0202-25	Soil	02/03/22 13:05	02/05/22 11:15
HA-03B-0.0-0.5_0222	A2B0202-26	Soil	02/03/22 12:15	02/05/22 11:15
HA-03C-0.0-0.5_0222	A2B0202-27	Soil	02/01/22 17:00	02/05/22 11:15
HA-03D-0.0-0.5_0222	A2B0202-28	Soil	02/03/22 10:00	02/05/22 11:15
HA-03E-0.0-0.5_0222	A2B0202-29	Soil	02/03/22 09:25	02/05/22 11:15
HA-01-Comp-0.0-0.5_0222	A2B0202-30	Soil	02/04/22 16:55	02/05/22 11:15
HA-02-Comp-0.0-0.5_0222	A2B0202-31	Soil	02/04/22 18:30	02/05/22 11:15
HA-03-Comp-0.0-0.5_0222	A2B0202-32	Soil	02/04/22 18:35	02/05/22 11:15
EB-01	A2B0202-33	Water	02/04/22 17:15	02/05/22 11:15

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Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB-02	A2B0202-34	Water	02/04/22 17:30	02/05/22 11:15
PZ-01_0222	A2B0202-35	Water	02/04/22 12:35	02/05/22 11:15
PZ-02_0222	A2B0202-36	Water	02/04/22 16:40	02/05/22 11:15
PZ-102_0222	A2B0202-37	Water	02/03/22 16:50	02/05/22 11:15
PZ-03_0222	A2B0202-38	Water	02/03/22 15:15	02/05/22 11:15
PZ-04_0222	A2B0202-39	Water	02/03/22 12:05	02/05/22 11:15
PZ-05_0222	A2B0202-40	Water	02/04/22 13:45	02/05/22 11:15
SW-09_0222	A2B0202-41	Water	02/02/22 13:25	02/05/22 11:15
SW-109_0222	A2B0202-42	Water	02/02/22 13:30	02/05/22 11:15
SW-07_0222	A2B0202-43	Water	02/02/22 11:00	02/05/22 11:15
SW-08_0222	A2B0202-44	Water	02/02/22 12:10	02/05/22 11:15
SW-10_0222	A2B0202-45	Water	02/02/22 14:22	02/05/22 11:15
SW-11_0222	A2B0202-46	Water	02/02/22 15:15	02/05/22 11:15
SW-12_0222	A2B0202-47	Water	02/02/22 16:00	02/05/22 11:15
SW-13_0222	A2B0202-48	Water	02/02/22 17:25	02/05/22 11:15
SW-14_0222	A2B0202-49	Water	02/04/22 14:55	02/05/22 11:15

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL CASE NARRATIVE

A2B0202

Apex Laboratories

Amended Report Revision 1:

Reporting to the Method Reporting Limits (MRLs)-

This report supersedes all previous reports.

The final report has been amended to report all samples to the MRLs.

Philip Nerenberg

Lab Director

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soil		Batch: 22B0380		
Diesel	ND	20.1	40.2	mg/kg dry	1	02/10/22 21:57	NWTPH-Dx	F-03
Oil	269	40.2	80.5	mg/kg dry	1	02/10/22 21:57	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 88 %		Limits: 50-150 %	1	02/10/22 21:57	NWTPH-Dx	
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	17.8	35.6	mg/kg dry	1	02/10/22 21:34	NWTPH-Dx	Ja
Oil	49.1	35.6	71.2	mg/kg dry	1	02/10/22 21:34	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 88 %		Limits: 50-150 %	1	02/10/22 21:34	NWTPH-Dx	
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soil		Batch: 22B0416		
Diesel	46.8	45.5	90.9	mg/kg dry	1	02/10/22 22:17	NWTPH-Dx	Ja
Oil	92.4	90.9	182	mg/kg dry	1	02/10/22 22:17	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recovery: 70 %		Limits: 50-150 %	1	02/10/22 22:17	NWTPH-Dx	
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	30.6	61.2	mg/kg dry	1	02/10/22 22:38	NWTPH-Dx	Ja
Oil	71.8	61.2	122	mg/kg dry	1	02/10/22 22:38	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 86 %		Limits: 50-150 %	1	02/10/22 22:38	NWTPH-Dx	
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	46.8	93.7	mg/kg dry	1	02/10/22 22:59	NWTPH-Dx	Ja
Oil	113	93.7	187	mg/kg dry	1	02/10/22 22:59	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 75 %		Limits: 50-150 %	1	02/10/22 22:59	NWTPH-Dx	
HA-102-Comp-1.0-2.0_0222 (A2B0202-06)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	31.3	62.5	mg/kg dry	1	02/10/22 23:21	NWTPH-Dx	Ja
Oil	74.4	62.5	125	mg/kg dry	1	02/10/22 23:21	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 83 %		Limits: 50-150 %	1	02/10/22 23:21	NWTPH-Dx	
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	42.5	85.0	mg/kg dry	1	02/10/22 23:41	NWTPH-Dx	F-03
Oil	324	85.0	170	mg/kg dry	1	02/10/22 23:41	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 81 %		Limits: 50-150 %	1	02/10/22 23:41	NWTPH-Dx	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-Comp-1.0-2.0_0222 (A2B0202-08)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	20.0	40.0	mg/kg dry	1	02/11/22 00:02	NWTPH-Dx	Ja
Oil	62.6	40.0	80.0	mg/kg dry	1	02/11/22 00:02	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 74 %		Limits: 50-150 %	1	02/11/22 00:02	NWTPH-Dx	
HA-04-Comp-0.0-0.5_0222 (A2B0202-09)				Matrix: Soil		Batch: 22B0416		
Diesel	85.2	65.3	131	mg/kg dry	1	02/11/22 00:23	NWTPH-Dx	Ja
Oil	434	131	261	mg/kg dry	1	02/11/22 00:23	NWTPH-Dx	F-17
Surrogate: o-Terphenyl (Surr)		Recovery: 87 %		Limits: 50-150 %	1	02/11/22 00:23	NWTPH-Dx	
HA-04-Comp-0.5-1.0_0222 (A2B0202-10)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	29.0	58.0	mg/kg dry	1	02/11/22 00:45	NWTPH-Dx	Ja
Oil	108	58.0	116	mg/kg dry	1	02/11/22 00:45	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 81 %		Limits: 50-150 %	1	02/11/22 00:45	NWTPH-Dx	
HA-04-Comp-1.0-2.0_0222 (A2B0202-11)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	17.7	35.4	mg/kg dry	1	02/10/22 20:51	NWTPH-Dx	
Oil	ND	35.4	70.7	mg/kg dry	1	02/10/22 20:51	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 85 %		Limits: 50-150 %	1	02/10/22 20:51	NWTPH-Dx	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	37.9	75.8	mg/kg dry	1	02/10/22 21:12	NWTPH-Dx	
Oil	ND	75.8	152	mg/kg dry	1	02/10/22 21:12	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 87 %		Limits: 50-150 %	1	02/10/22 21:12	NWTPH-Dx	
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	30.3	60.6	mg/kg dry	1	02/10/22 21:34	NWTPH-Dx	
Oil	ND	60.6	121	mg/kg dry	1	02/10/22 21:34	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 81 %		Limits: 50-150 %	1	02/10/22 21:34	NWTPH-Dx	
HA-05-Comp-1.0-2.0_0222 (A2B0202-14)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	19.1	38.3	mg/kg dry	1	02/10/22 21:55	NWTPH-Dx	Ja
Oil	59.9	38.3	76.5	mg/kg dry	1	02/10/22 21:55	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 84 %		Limits: 50-150 %	1	02/10/22 21:55	NWTPH-Dx	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.0-0.5_0222 (A2B0202-30)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	24.5	49.1	mg/kg dry	1	02/10/22 22:17	NWTPH-Dx	
Oil	ND	49.1	98.2	mg/kg dry	1	02/10/22 22:17	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 94 %		Limits: 50-150 %	1	02/10/22 22:17	NWTPH-Dx	
HA-02-Comp-0.0-0.5_0222 (A2B0202-31)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	40.3	80.6	mg/kg dry	1	02/10/22 22:38	NWTPH-Dx	
Oil	ND	80.6	161	mg/kg dry	1	02/10/22 22:38	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 83 %		Limits: 50-150 %	1	02/10/22 22:38	NWTPH-Dx	
HA-03-Comp-0.0-0.5_0222 (A2B0202-32)				Matrix: Soil		Batch: 22B0416		
Diesel	ND	52.3	105	mg/kg dry	1	02/10/22 22:59	NWTPH-Dx	
Oil	113	105	209	mg/kg dry	1	02/10/22 22:59	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recovery: 92 %		Limits: 50-150 %	1	02/10/22 22:59	NWTPH-Dx	
EB-01 (A2B0202-33)				Matrix: Water		Batch: 22B0427		
Diesel	0.499	0.0971	0.194	mg/L	1	02/12/22 00:54	NWTPH-Dx	F-13
Oil	ND	0.194	0.388	mg/L	1	02/12/22 00:54	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 88 %		Limits: 50-150 %	1	02/12/22 00:54	NWTPH-Dx	
EB-02 (A2B0202-34)				Matrix: Water		Batch: 22B0427		PRES
Diesel	ND	0.125	0.250	mg/L	1	02/12/22 01:14	NWTPH-Dx	
Oil	ND	0.250	0.500	mg/L	1	02/12/22 01:14	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 89 %		Limits: 50-150 %	1	02/12/22 01:14	NWTPH-Dx	
PZ-01_0222 (A2B0202-35)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0943	0.189	mg/L	1	02/12/22 01:34	NWTPH-Dx	
Oil	ND	0.189	0.377	mg/L	1	02/12/22 01:34	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 84 %		Limits: 50-150 %	1	02/12/22 01:34	NWTPH-Dx	
PZ-02_0222 (A2B0202-36)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0952	0.190	mg/L	1	02/12/22 01:55	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/12/22 01:55	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 89 %		Limits: 50-150 %	1	02/12/22 01:55	NWTPH-Dx	

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Philip Nerenberg, Lab Director



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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-102_0222 (A2B0202-37)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0971	0.194	mg/L	1	02/11/22 21:50	NWTPH-Dx	
Oil	ND	0.194	0.388	mg/L	1	02/11/22 21:50	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 92 %		Limits: 50-150 %	1	02/11/22 21:50	NWTPH-Dx	
PZ-03_0222 (A2B0202-38)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0962	0.192	mg/L	1	02/11/22 22:10	NWTPH-Dx	
Oil	ND	0.192	0.385	mg/L	1	02/11/22 22:10	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 89 %		Limits: 50-150 %	1	02/11/22 22:10	NWTPH-Dx	
PZ-04_0222 (A2B0202-39)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0962	0.192	mg/L	1	02/11/22 22:30	NWTPH-Dx	
Oil	ND	0.192	0.385	mg/L	1	02/11/22 22:30	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 82 %		Limits: 50-150 %	1	02/11/22 22:30	NWTPH-Dx	
PZ-05_0222 (A2B0202-40)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0952	0.190	mg/L	1	02/11/22 22:51	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/11/22 22:51	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 92 %		Limits: 50-150 %	1	02/11/22 22:51	NWTPH-Dx	
SW-09_0222 (A2B0202-41)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0962	0.192	mg/L	1	02/11/22 23:11	NWTPH-Dx	
Oil	ND	0.192	0.385	mg/L	1	02/11/22 23:11	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 91 %		Limits: 50-150 %	1	02/11/22 23:11	NWTPH-Dx	
SW-109_0222 (A2B0202-42)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0952	0.190	mg/L	1	02/11/22 23:32	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/11/22 23:32	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 87 %		Limits: 50-150 %	1	02/11/22 23:32	NWTPH-Dx	
SW-07_0222 (A2B0202-43)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0990	0.198	mg/L	1	02/11/22 23:52	NWTPH-Dx	
Oil	ND	0.198	0.396	mg/L	1	02/11/22 23:52	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 95 %		Limits: 50-150 %	1	02/11/22 23:52	NWTPH-Dx	

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-08_0222 (A2B0202-44)		Matrix: Water			Batch: 22B0427			
Diesel	ND	0.0980	0.196	mg/L	1	02/12/22 00:13	NWTPH-Dx	
Oil	ND	0.196	0.392	mg/L	1	02/12/22 00:13	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 76 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>02/12/22 00:13</i>	<i>NWTPH-Dx</i>	
SW-10_0222 (A2B0202-45)		Matrix: Water			Batch: 22B0427			
Diesel	ND	0.0952	0.190	mg/L	1	02/12/22 00:33	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/12/22 00:33	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 87 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>02/12/22 00:33</i>	<i>NWTPH-Dx</i>	
SW-11_0222 (A2B0202-46)		Matrix: Water			Batch: 22B0427			
Diesel	ND	0.0962	0.192	mg/L	1	02/12/22 00:54	NWTPH-Dx	
Oil	ND	0.192	0.385	mg/L	1	02/12/22 00:54	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 85 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>02/12/22 00:54</i>	<i>NWTPH-Dx</i>	
SW-12_0222 (A2B0202-47)		Matrix: Water			Batch: 22B0427			
Diesel	ND	0.0952	0.190	mg/L	1	02/12/22 01:14	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/12/22 01:14	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 87 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>02/12/22 01:14</i>	<i>NWTPH-Dx</i>	
SW-13_0222 (A2B0202-48)		Matrix: Water			Batch: 22B0427			
Diesel	ND	0.0990	0.198	mg/L	1	02/12/22 01:34	NWTPH-Dx	
Oil	ND	0.198	0.396	mg/L	1	02/12/22 01:34	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>02/12/22 01:34</i>	<i>NWTPH-Dx</i>	
SW-14_0222 (A2B0202-49)		Matrix: Water			Batch: 22B0427			
Diesel	ND	0.0971	0.194	mg/L	1	02/12/22 01:55	NWTPH-Dx	
Oil	ND	0.194	0.388	mg/L	1	02/12/22 01:55	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 86 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>02/12/22 01:55</i>	<i>NWTPH-Dx</i>	

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soil		Batch: 22B0397		
Gasoline Range Organics	ND	8.49	17.0	mg/kg dry	50	02/10/22 14:42	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 124 %	Limits: 50-150 %	1	02/10/22 14:42	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		106 %	50-150 %	1	02/10/22 14:42	NWTPH-Gx (MS)		
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soil		Batch: 22B0397		
Gasoline Range Organics	ND	6.20	12.4	mg/kg dry	50	02/10/22 15:36	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 120 %	Limits: 50-150 %	1	02/10/22 15:36	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		107 %	50-150 %	1	02/10/22 15:36	NWTPH-Gx (MS)		
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soil		Batch: 22B0397		
Gasoline Range Organics	ND	30.6	61.3	mg/kg dry	50	02/10/22 16:30	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 121 %	Limits: 50-150 %	1	02/10/22 16:30	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		108 %	50-150 %	1	02/10/22 16:30	NWTPH-Gx (MS)		
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soil		Batch: 22B0397		V-16, V-21
Gasoline Range Organics	ND	12.7	25.5	mg/kg dry	50	02/10/22 19:12	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 128 %	Limits: 50-150 %	1	02/10/22 19:12	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		106 %	50-150 %	1	02/10/22 19:12	NWTPH-Gx (MS)		
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soil		Batch: 22B0397		
Gasoline Range Organics	ND	25.0	50.0	mg/kg dry	50	02/10/22 16:57	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 124 %	Limits: 50-150 %	1	02/10/22 16:57	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		108 %	50-150 %	1	02/10/22 16:57	NWTPH-Gx (MS)		
HA-102-Comp-1.0-2.0_0222 (A2B0202-06)				Matrix: Soil		Batch: 22B0397		V-16, V-21
Gasoline Range Organics	ND	12.7	25.3	mg/kg dry	50	02/10/22 19:39	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 128 %	Limits: 50-150 %	1	02/10/22 19:39	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		107 %	50-150 %	1	02/10/22 19:39	NWTPH-Gx (MS)		
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soil		Batch: 22B0397		
Gasoline Range Organics	ND	21.8	43.5	mg/kg dry	50	02/10/22 17:24	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 123 %	Limits: 50-150 %	1	02/10/22 17:24	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		108 %	50-150 %	1	02/10/22 17:24	NWTPH-Gx (MS)		
HA-03-Comp-1.0-2.0_0222 (A2B0202-08)				Matrix: Soil		Batch: 22B0397		V-16, V-21

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-Comp-1.0-2.0_0222 (A2B0202-08)		Matrix: Soil		Batch: 22B0397		V-16, V-21		
Gasoline Range Organics	ND	8.00	16.0	mg/kg dry	50	02/10/22 20:06	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 122 %	Limits: 50-150 %	1	02/10/22 20:06	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		107 %	50-150 %	1	02/10/22 20:06	NWTPH-Gx (MS)		
HA-04-Comp-0.0-0.5_0222 (A2B0202-09)		Matrix: Soil		Batch: 22B0420				
Gasoline Range Organics	95.0	44.5	88.9	mg/kg dry	50	02/10/22 23:42	NWTPH-Gx (MS)	F-12
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 122 %	Limits: 50-150 %	1	02/10/22 23:42	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		108 %	50-150 %	1	02/10/22 23:42	NWTPH-Gx (MS)		
HA-04-Comp-0.5-1.0_0222 (A2B0202-10)		Matrix: Soil		Batch: 22B0420				
Gasoline Range Organics	ND	21.5	43.1	mg/kg dry	50	02/11/22 00:35	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 118 %	Limits: 50-150 %	1	02/11/22 00:35	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		107 %	50-150 %	1	02/11/22 00:35	NWTPH-Gx (MS)		
HA-04-Comp-1.0-2.0_0222 (A2B0202-11)		Matrix: Soil		Batch: 22B0397		V-16, V-21		
Gasoline Range Organics	ND	6.31	12.6	mg/kg dry	50	02/10/22 20:33	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 123 %	Limits: 50-150 %	1	02/10/22 20:33	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		108 %	50-150 %	1	02/10/22 20:33	NWTPH-Gx (MS)		
HA-05-Comp-0.0-0.5_0222 (A2B0202-12)		Matrix: Soil		Batch: 22B0420				
Gasoline Range Organics	ND	21.3	42.6	mg/kg dry	50	02/11/22 01:02	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 123 %	Limits: 50-150 %	1	02/11/22 01:02	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		108 %	50-150 %	1	02/11/22 01:02	NWTPH-Gx (MS)		
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)		Matrix: Soil		Batch: 22B0420				
Gasoline Range Organics	ND	16.8	33.5	mg/kg dry	50	02/11/22 01:30	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 125 %	Limits: 50-150 %	1	02/11/22 01:30	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		110 %	50-150 %	1	02/11/22 01:30	NWTPH-Gx (MS)		
HA-05-Comp-1.0-2.0_0222 (A2B0202-14)		Matrix: Soil		Batch: 22B0397		V-16, V-21		
Gasoline Range Organics	ND	6.33	12.7	mg/kg dry	50	02/10/22 21:00	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 123 %	Limits: 50-150 %	1	02/10/22 21:00	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		108 %	50-150 %	1	02/10/22 21:00	NWTPH-Gx (MS)		
HA-01-Comp-0.0-0.5_0222 (A2B0202-30)		Matrix: Soil		Batch: 22B0420				

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.0-0.5_0222 (A2B0202-30)				Matrix: Soil		Batch: 22B0420		
Gasoline Range Organics	ND	9.46	18.9	mg/kg dry	50	02/11/22 01:56	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 126 %	Limits: 50-150 %	1	02/11/22 01:56	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		110 %	50-150 %	1	02/11/22 01:56	NWTPH-Gx (MS)		
HA-02-Comp-0.0-0.5_0222 (A2B0202-31)				Matrix: Soil		Batch: 22B0420		
Gasoline Range Organics	ND	20.8	41.6	mg/kg dry	50	02/11/22 02:23	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 126 %	Limits: 50-150 %	1	02/11/22 02:23	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		110 %	50-150 %	1	02/11/22 02:23	NWTPH-Gx (MS)		
HA-03-Comp-0.0-0.5_0222 (A2B0202-32)				Matrix: Soil		Batch: 22B0420		
Gasoline Range Organics	ND	30.5	61.0	mg/kg dry	50	02/11/22 02:50	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 129 %	Limits: 50-150 %	1	02/11/22 02:50	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		111 %	50-150 %	1	02/11/22 02:50	NWTPH-Gx (MS)		
EB-02 (A2B0202-34)				Matrix: Water		Batch: 22B0469		
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 11:28	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 97 %	Limits: 50-150 %	1	02/12/22 11:28	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		100 %	50-150 %	1	02/12/22 11:28	NWTPH-Gx (MS)		
PZ-01_0222 (A2B0202-35)				Matrix: Water		Batch: 22B0469		
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 11:54	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 101 %	Limits: 50-150 %	1	02/12/22 11:54	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		102 %	50-150 %	1	02/12/22 11:54	NWTPH-Gx (MS)		
PZ-02_0222 (A2B0202-36)				Matrix: Water		Batch: 22B0469		
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 12:47	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 99 %	Limits: 50-150 %	1	02/12/22 12:47	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		104 %	50-150 %	1	02/12/22 12:47	NWTPH-Gx (MS)		
PZ-102_0222 (A2B0202-37)				Matrix: Water		Batch: 22B0469		
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 13:14	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 98 %	Limits: 50-150 %	1	02/12/22 13:14	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		104 %	50-150 %	1	02/12/22 13:14	NWTPH-Gx (MS)		
PZ-03_0222 (A2B0202-38)				Matrix: Water		Batch: 22B0469		

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-03_0222 (A2B0202-38)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 13:40	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 94 %	Limits: 50-150 %	1	02/12/22 13:40	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		104 %	50-150 %	1	02/12/22 13:40	NWTPH-Gx (MS)		
PZ-04_0222 (A2B0202-39)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 14:07	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 100 %	Limits: 50-150 %	1	02/12/22 14:07	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		106 %	50-150 %	1	02/12/22 14:07	NWTPH-Gx (MS)		
PZ-05_0222 (A2B0202-40)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 14:33	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 95 %	Limits: 50-150 %	1	02/12/22 14:33	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		105 %	50-150 %	1	02/12/22 14:33	NWTPH-Gx (MS)		
SW-09_0222 (A2B0202-41)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 15:00	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 100 %	Limits: 50-150 %	1	02/12/22 15:00	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		106 %	50-150 %	1	02/12/22 15:00	NWTPH-Gx (MS)		
SW-109_0222 (A2B0202-42)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 15:26	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 95 %	Limits: 50-150 %	1	02/12/22 15:26	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		106 %	50-150 %	1	02/12/22 15:26	NWTPH-Gx (MS)		
SW-07_0222 (A2B0202-43)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 15:52	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 101 %	Limits: 50-150 %	1	02/12/22 15:52	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		107 %	50-150 %	1	02/12/22 15:52	NWTPH-Gx (MS)		
SW-08_0222 (A2B0202-44)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 16:19	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 98 %	Limits: 50-150 %	1	02/12/22 16:19	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		107 %	50-150 %	1	02/12/22 16:19	NWTPH-Gx (MS)		
SW-10_0222 (A2B0202-45)		Matrix: Water			Batch: 22B0469			

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-10_0222 (A2B0202-45)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 16:45	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 103 %	Limits: 50-150 %	1	02/12/22 16:45	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		108 %	50-150 %	1	02/12/22 16:45	NWTPH-Gx (MS)		
SW-11_0222 (A2B0202-46)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 17:12	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 100 %	Limits: 50-150 %	1	02/12/22 17:12	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		108 %	50-150 %	1	02/12/22 17:12	NWTPH-Gx (MS)		
SW-12_0222 (A2B0202-47)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 18:05	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 102 %	Limits: 50-150 %	1	02/12/22 18:05	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		110 %	50-150 %	1	02/12/22 18:05	NWTPH-Gx (MS)		
SW-13_0222 (A2B0202-48)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 18:31	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 105 %	Limits: 50-150 %	1	02/12/22 18:31	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		110 %	50-150 %	1	02/12/22 18:31	NWTPH-Gx (MS)		
SW-14_0222 (A2B0202-49)		Matrix: Water			Batch: 22B0469			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 19:51	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 101 %	Limits: 50-150 %	1	02/12/22 19:51	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		111 %	50-150 %	1	02/12/22 19:51	NWTPH-Gx (MS)		

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 11:54	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	

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Philip Nerenberg, Lab Director



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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Water		Batch: 22B0469		
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)		Matrix: Water			Batch: 22B0469			
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %	Limits: 80-120 %	1	02/12/22 11:54	EPA 8260D		
Toluene-d8 (Surr)		97 %	80-120 %	1	02/12/22 11:54	EPA 8260D		
4-Bromofluorobenzene (Surr)		104 %	80-120 %	1	02/12/22 11:54	EPA 8260D		
PZ-02_0222 (A2B0202-36)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 12:47	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-02_0222 (A2B0202-36)				Matrix: Water		Batch: 22B0469		
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-02_0222 (A2B0202-36)		Matrix: Water			Batch: 22B0469			
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>105 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>02/12/22 12:47</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>02/12/22 12:47</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>105 %</i>		<i>80-120 %</i>	<i>1</i>	<i>02/12/22 12:47</i>	<i>EPA 8260D</i>
PZ-102_0222 (A2B0202-37)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 13:14	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-102_0222 (A2B0202-37)				Matrix: Water		Batch: 22B0469		
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-102_0222 (A2B0202-37)		Matrix: Water			Batch: 22B0469			
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %	1	02/12/22 13:14	EPA 8260D	
Toluene-d8 (Surr)		99 %		80-120 %	1	02/12/22 13:14	EPA 8260D	
4-Bromofluorobenzene (Surr)		104 %		80-120 %	1	02/12/22 13:14	EPA 8260D	
PZ-03_0222 (A2B0202-38)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 13:40	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-03_0222 (A2B0202-38)		Matrix: Water			Batch: 22B0469			
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
Toluene	0.640	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	Ja

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-03_0222 (A2B0202-38)		Matrix: Water			Batch: 22B0469			
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	103 %	Limits:	80-120 %	1	02/12/22 13:40	EPA 8260D
Toluene-d8 (Surr)			101 %		80-120 %	1	02/12/22 13:40	EPA 8260D
4-Bromofluorobenzene (Surr)			107 %		80-120 %	1	02/12/22 13:40	EPA 8260D
PZ-04_0222 (A2B0202-39)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 14:07	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-04_0222 (A2B0202-39)				Matrix: Water		Batch: 22B0469		
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-04_0222 (A2B0202-39)		Matrix: Water			Batch: 22B0469			
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %	Limits: 80-120 %	1	02/12/22 14:07	EPA 8260D		
Toluene-d8 (Surr)		100 %	80-120 %	1	02/12/22 14:07	EPA 8260D		
4-Bromofluorobenzene (Surr)		106 %	80-120 %	1	02/12/22 14:07	EPA 8260D		
PZ-05_0222 (A2B0202-40)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 14:33	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-05_0222 (A2B0202-40)		Matrix: Water			Batch: 22B0469			
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-05_0222 (A2B0202-40)		Matrix: Water			Batch: 22B0469			
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>103 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>02/12/22 14:33</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>02/12/22 14:33</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>107 %</i>		<i>80-120 %</i>	<i>1</i>	<i>02/12/22 14:33</i>	<i>EPA 8260D</i>

SW-09_0222 (A2B0202-41)**Matrix: Water****Batch: 22B0469**

Acetone	ND	20.0	20.0	ug/L	1	02/12/22 15:00	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-09_0222 (A2B0202-41)		Matrix: Water			Batch: 22B0469			
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-09_0222 (A2B0202-41)		Matrix: Water			Batch: 22B0469			
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits:	80-120 %	1	02/12/22 15:00	EPA 8260D
Toluene-d8 (Surr)			100 %		80-120 %	1	02/12/22 15:00	EPA 8260D
4-Bromofluorobenzene (Surr)			104 %		80-120 %	1	02/12/22 15:00	EPA 8260D

SW-109_0222 (A2B0202-42)

Matrix: Water

Batch: 22B0469

Acetone	ND	20.0	20.0	ug/L	1	02/12/22 15:26	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 15:26	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-109_0222 (A2B0202-42)		Matrix: Water			Batch: 22B0469			
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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AMENDED REPORT

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Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-109_0222 (A2B0202-42)		Matrix: Water			Batch: 22B0469			
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %	1	02/12/22 15:26	EPA 8260D	
Toluene-d8 (Surr)		101 %		80-120 %	1	02/12/22 15:26	EPA 8260D	
4-Bromofluorobenzene (Surr)		106 %		80-120 %	1	02/12/22 15:26	EPA 8260D	

SW-07_0222 (A2B0202-43)

Matrix: Water

Batch: 22B0469

Acetone	ND	20.0	20.0	ug/L	1	02/12/22 15:52	EPA 8260D	ICV-02
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Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)		Matrix: Water			Batch: 22B0469			
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)		Matrix: Water			Batch: 22B0469			
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %	1	02/12/22 15:52	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)		Matrix: Water			Batch: 22B0469			
Surrogate: Toluene-d8 (Surr)		Recovery: 99 %	Limits: 80-120 %	1	02/12/22 15:52	EPA 8260D		
4-Bromofluorobenzene (Surr)		104 %	80-120 %	1	02/12/22 15:52	EPA 8260D		
SW-08_0222 (A2B0202-44)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 16:19	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-08_0222 (A2B0202-44)		Matrix: Water			Batch: 22B0469			
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-08_0222 (A2B0202-44)		Matrix: Water			Batch: 22B0469			
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %	1	02/12/22 16:19	EPA 8260D	
Toluene-d8 (Surr)		101 %		80-120 %	1	02/12/22 16:19	EPA 8260D	
4-Bromofluorobenzene (Surr)		107 %		80-120 %	1	02/12/22 16:19	EPA 8260D	
SW-10_0222 (A2B0202-45)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 16:45	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-10_0222 (A2B0202-45)		Matrix: Water			Batch: 22B0469			
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.400	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-10_0222 (A2B0202-45)		Matrix: Water			Batch: 22B0469			
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %	1	02/12/22 16:45	EPA 8260D	
Toluene-d8 (Surr)		100 %		80-120 %	1	02/12/22 16:45	EPA 8260D	
4-Bromofluorobenzene (Surr)		103 %		80-120 %	1	02/12/22 16:45	EPA 8260D	
SW-11_0222 (A2B0202-46)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 17:12	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-11_0222 (A2B0202-46)		Matrix: Water			Batch: 22B0469			
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-11_0222 (A2B0202-46)		Matrix: Water			Batch: 22B0469			
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits:	80-120 %	1	02/12/22 17:12	EPA 8260D
Toluene-d8 (Surr)			102 %		80-120 %	1	02/12/22 17:12	EPA 8260D
4-Bromofluorobenzene (Surr)			106 %		80-120 %	1	02/12/22 17:12	EPA 8260D
SW-12_0222 (A2B0202-47)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 18:05	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 18:05	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 18:05	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-12_0222 (A2B0202-47)		Matrix: Water			Batch: 22B0469			
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 18:05	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-12_0222 (A2B0202-47)		Matrix: Water			Batch: 22B0469			
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 106 %		Limits: 80-120 %	1	02/12/22 18:05	EPA 8260D	
Toluene-d8 (Surr)		101 %		80-120 %	1	02/12/22 18:05	EPA 8260D	
4-Bromofluorobenzene (Surr)		105 %		80-120 %	1	02/12/22 18:05	EPA 8260D	
SW-13_0222 (A2B0202-48)		Matrix: Water			Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 18:31	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-13_0222 (A2B0202-48)		Matrix: Water			Batch: 22B0469			
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-13_0222 (A2B0202-48)		Matrix: Water			Batch: 22B0469			
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	106 %	Limits:	80-120 %	1	02/12/22 18:31	EPA 8260D
Toluene-d8 (Surr)			100 %		80-120 %	1	02/12/22 18:31	EPA 8260D
4-Bromofluorobenzene (Surr)			99 %		80-120 %	1	02/12/22 18:31	EPA 8260D

SW-14_0222 (A2B0202-49)

Matrix: Water

Batch: 22B0469

Acetone	ND	20.0	20.0	ug/L	1	02/12/22 19:51	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-14_0222 (A2B0202-49)		Matrix: Water			Batch: 22B0469			
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-14_0222 (A2B0202-49)		Matrix: Water			Batch: 22B0469			
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 106 %		Limits: 80-120 %	1	02/12/22 19:51	EPA 8260D	
Toluene-d8 (Surr)		101 %		80-120 %	1	02/12/22 19:51	EPA 8260D	
4-Bromofluorobenzene (Surr)		104 %		80-120 %	1	02/12/22 19:51	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Water		Batch: 22B0338		
Acenaphthene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Acenaphthylene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Anthracene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benz(a)anthracene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Chrysene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Fluoranthene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Fluorene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0439	0.0877	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0439	0.0877	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Naphthalene	ND	0.0439	0.0877	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Phenanthrene	ND	0.0439	0.0877	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Pyrene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Carbazole	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Dibenzofuran	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 94 %		Limits: 78-134 %	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		97 %		80-132 %	1	02/09/22 12:57	EPA 8270E LVI	

PZ-02_0222 (A2B0202-36)

Matrix: Water

Batch: 22B0338

Acenaphthene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI
Acenaphthylene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI
Anthracene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI
Benz(a)anthracene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI
Benzo(a)pyrene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI
Benzo(b)fluoranthene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI
Benzo(k)fluoranthene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI
Benzo(g,h,i)perylene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI
Chrysene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-02_0222 (A2B0202-36)		Matrix: Water			Batch: 22B0338			
Dibenz(a,h)anthracene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Fluoranthene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Fluorene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0380	0.0760	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0380	0.0760	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Naphthalene	ND	0.0380	0.0760	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Phenanthrene	ND	0.0380	0.0760	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Pyrene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Carbazole	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Dibenzofuran	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 93 %		Limits: 78-134 %	1	02/09/22 13:30	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		97 %		80-132 %	1	02/09/22 13:30	EPA 8270E LVI	
PZ-102_0222 (A2B0202-37)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Acenaphthylene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Anthracene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Chrysene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Fluoranthene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Fluorene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0373	0.0746	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0373	0.0746	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Naphthalene	ND	0.0373	0.0746	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Phenanthrene	ND	0.0373	0.0746	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Pyrene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-102_0222 (A2B0202-37)		Matrix: Water			Batch: 22B0338			
Carbazole	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Dibenzofuran	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	95 %	Limits:	78-134 %	1	02/09/22 14:02	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)			100 %		80-132 %	1	02/09/22 14:02	EPA 8270E LVI
PZ-03_0222 (A2B0202-38)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Acenaphthylene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Anthracene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Chrysene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Fluoranthene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Fluorene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Naphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Phenanthrene	ND	0.0352	0.0704	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Pyrene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Carbazole	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Dibenzofuran	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	94 %	Limits:	78-134 %	1	02/09/22 14:35	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)			101 %		80-132 %	1	02/09/22 14:35	EPA 8270E LVI
PZ-04_0222 (A2B0202-39)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Acenaphthylene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Anthracene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Benz(a)anthracene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-04_0222 (A2B0202-39)		Matrix: Water			Batch: 22B0338			
Benzo(a)pyrene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Chrysene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Fluoranthene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Fluorene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0457	0.0914	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0457	0.0914	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Naphthalene	ND	0.0457	0.0914	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Phenanthrene	ND	0.0457	0.0914	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Pyrene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Carbazole	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Dibenzofuran	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 91 %		Limits: 78-134 %	1	02/09/22 15:07	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		101 %		80-132 %	1	02/09/22 15:07	EPA 8270E LVI	
PZ-05_0222 (A2B0202-40)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Acenaphthylene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Anthracene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Chrysene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Fluoranthene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Fluorene	0.0187	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	Ja
Indeno(1,2,3-cd)pyrene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	

Apex Laboratories

Philip Nerenberg, Lab Director

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-05_0222 (A2B0202-40)		Matrix: Water			Batch: 22B0338			
1-Methylnaphthalene	ND	0.0366	0.0732	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0366	0.0732	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Naphthalene	0.343	0.0366	0.0732	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Phenanthrene	ND	0.0366	0.0732	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Pyrene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Carbazole	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Dibenzofuran	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 92 %		Limits: 78-134 %	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		105 %		80-132 %	1	02/09/22 15:39	EPA 8270E LVI	
SW-09_0222 (A2B0202-41)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Acenaphthylene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Anthracene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benz(a)anthracene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Chrysene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Fluoranthene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Fluorene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0435	0.0870	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0435	0.0870	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Naphthalene	ND	0.0435	0.0870	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Phenanthrene	ND	0.0435	0.0870	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Pyrene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Carbazole	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Dibenzofuran	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 91 %		Limits: 78-134 %	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		99 %		80-132 %	1	02/09/22 16:12	EPA 8270E LVI	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-109_0222 (A2B0202-42)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Acenaphthylene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Anthracene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benz(a)anthracene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Chrysene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Fluoranthene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Fluorene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0406	0.0812	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0406	0.0812	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Naphthalene	ND	0.0406	0.0812	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Phenanthrene	ND	0.0406	0.0812	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Pyrene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Carbazole	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Dibenzofuran	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	90 %	Limits:	78-134 %	1	02/09/22 16:44	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)			100 %		80-132 %	1	02/09/22 16:44	EPA 8270E LVI

SW-07_0222 (A2B0202-43)

Matrix: Water

Batch: 22B0338

Acenaphthene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI
Acenaphthylene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI
Anthracene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI
Benz(a)anthracene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI
Benzo(a)pyrene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI
Benzo(b)fluoranthene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI
Benzo(k)fluoranthene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI
Benzo(g,h,i)perylene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI
Chrysene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)		Matrix: Water			Batch: 22B0338			
Dibenz(a,h)anthracene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Fluoranthene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Fluorene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Naphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Phenanthrene	ND	0.0352	0.0704	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Pyrene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Carbazole	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Dibenzofuran	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 90 %		Limits: 78-134 %	1	02/09/22 17:16	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		100 %		80-132 %	1	02/09/22 17:16	EPA 8270E LVI	
SW-08_0222 (A2B0202-44)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Acenaphthylene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Anthracene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Chrysene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Fluoranthene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Fluorene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Naphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Phenanthrene	ND	0.0333	0.0666	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Pyrene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-08_0222 (A2B0202-44)		Matrix: Water			Batch: 22B0338			
Carbazole	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Dibenzofuran	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	90 %	Limits:	78-134 %	1	02/09/22 17:48	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)			99 %		80-132 %	1	02/09/22 17:48	EPA 8270E LVI
SW-10_0222 (A2B0202-45)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Acenaphthylene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Anthracene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Chrysene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Fluoranthene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Fluorene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Naphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Phenanthrene	ND	0.0352	0.0704	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Pyrene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Carbazole	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Dibenzofuran	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	91 %	Limits:	78-134 %	1	02/09/22 18:20	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)			99 %		80-132 %	1	02/09/22 18:20	EPA 8270E LVI
SW-11_0222 (A2B0202-46)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Acenaphthylene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Anthracene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-11_0222 (A2B0202-46)		Matrix: Water			Batch: 22B0338			
Benzo(a)pyrene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Chrysene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Fluoranthene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Fluorene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0333	0.0665	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0333	0.0665	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Naphthalene	ND	0.0333	0.0665	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Phenanthrene	ND	0.0333	0.0665	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Pyrene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Carbazole	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Dibenzofuran	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	91 %	Limits:	78-134 %	1	02/09/22 18:53	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)			99 %		80-132 %	1	02/09/22 18:53	EPA 8270E LVI
SW-12_0222 (A2B0202-47)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Acenaphthylene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Anthracene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Chrysene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Fluoranthene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Fluorene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-12_0222 (A2B0202-47)		Matrix: Water			Batch: 22B0338			
1-Methylnaphthalene	ND	0.0335	0.0670	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0335	0.0670	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Naphthalene	ND	0.0335	0.0670	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Phenanthrene	ND	0.0335	0.0670	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Pyrene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Carbazole	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Dibenzofuran	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 89 %		Limits: 78-134 %	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		103 %		80-132 %	1	02/09/22 19:25	EPA 8270E LVI	
SW-13_0222 (A2B0202-48)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Acenaphthylene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Anthracene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Chrysene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Fluoranthene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Fluorene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0338	0.0676	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0338	0.0676	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Naphthalene	ND	0.0338	0.0676	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Phenanthrene	ND	0.0338	0.0676	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Pyrene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Carbazole	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Dibenzofuran	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 91 %		Limits: 78-134 %	1	02/09/22 19:58	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		100 %		80-132 %	1	02/09/22 19:58	EPA 8270E LVI	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-14_0222 (A2B0202-49)		Matrix: Water			Batch: 22B0338			
Acenaphthene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Acenaphthylene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Anthracene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Chrysene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Fluoranthene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Fluorene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Naphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Phenanthrene	ND	0.0333	0.0666	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Pyrene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Carbazole	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Dibenzofuran	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	92 %	Limits:	78-134 %	1	02/09/22 20:30	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)			100 %		80-132 %	1	02/09/22 20:30	EPA 8270E LVI

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Pentachlorophenol by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)		Matrix: Water			Batch: 22B0333			
Pentachlorophenol (PCP)	ND	0.105	0.211	ug/L	1	02/09/22 15:05	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 79 %		Limits: 43-140 %	1	02/09/22 15:05	EPA 8270E	
PZ-02_0222 (A2B0202-36)		Matrix: Water			Batch: 22B0333			
Pentachlorophenol (PCP)	ND	0.0980	0.196	ug/L	1	02/09/22 15:40	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 82 %		Limits: 43-140 %	1	02/09/22 15:40	EPA 8270E	
PZ-102_0222 (A2B0202-37)		Matrix: Water			Batch: 22B0333			
Pentachlorophenol (PCP)	ND	0.0952	0.190	ug/L	1	02/09/22 16:14	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 80 %		Limits: 43-140 %	1	02/09/22 16:14	EPA 8270E	
PZ-03_0222 (A2B0202-38)		Matrix: Water			Batch: 22B0333			
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	02/09/22 16:49	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 68 %		Limits: 43-140 %	1	02/09/22 16:49	EPA 8270E	
PZ-04_0222 (A2B0202-39)		Matrix: Water			Batch: 22B0333			
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	02/09/22 17:24	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 73 %		Limits: 43-140 %	1	02/09/22 17:24	EPA 8270E	
PZ-05_0222 (A2B0202-40)		Matrix: Water			Batch: 22B0333			
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	02/09/22 17:58	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 80 %		Limits: 43-140 %	1	02/09/22 17:58	EPA 8270E	
SW-09_0222 (A2B0202-41)		Matrix: Water			Batch: 22B0333			
Pentachlorophenol (PCP)	ND	0.0980	0.196	ug/L	1	02/09/22 18:33	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 68 %		Limits: 43-140 %	1	02/09/22 18:33	EPA 8270E	
SW-109_0222 (A2B0202-42)		Matrix: Water			Batch: 22B0333			
Pentachlorophenol (PCP)	ND	0.0980	0.196	ug/L	1	02/09/22 19:08	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 81 %		Limits: 43-140 %	1	02/09/22 19:08	EPA 8270E	
SW-07_0222 (A2B0202-43)		Matrix: Water			Batch: 22B0333			
Pentachlorophenol (PCP)	ND	0.104	0.208	ug/L	1	02/09/22 19:42	EPA 8270E	

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Pentachlorophenol by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)				Matrix: Water		Batch: 22B0333		
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 81 %		Limits: 43-140 %	1	02/09/22 19:42		EPA 8270E
SW-08_0222 (A2B0202-44)				Matrix: Water		Batch: 22B0333		
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	02/09/22 16:39		EPA 8270E
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 94 %		Limits: 43-140 %	1	02/09/22 16:39		EPA 8270E
SW-10_0222 (A2B0202-45)				Matrix: Water		Batch: 22B0333		
Pentachlorophenol (PCP)	ND	0.0971	0.194	ug/L	1	02/09/22 16:04		EPA 8270E
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 116 %		Limits: 43-140 %	1	02/09/22 16:04		EPA 8270E
SW-11_0222 (A2B0202-46)				Matrix: Water		Batch: 22B0333		
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	02/09/22 15:28		EPA 8270E
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 99 %		Limits: 43-140 %	1	02/09/22 15:28		EPA 8270E
SW-12_0222 (A2B0202-47)				Matrix: Water		Batch: 22B0333		
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	02/09/22 14:53		EPA 8270E
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 90 %		Limits: 43-140 %	1	02/09/22 14:53		EPA 8270E
SW-13_0222 (A2B0202-48)				Matrix: Water		Batch: 22B0333		
Pentachlorophenol (PCP)	ND	0.0980	0.196	ug/L	1	02/09/22 14:18		EPA 8270E
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 102 %		Limits: 43-140 %	1	02/09/22 14:18		EPA 8270E
SW-14_0222 (A2B0202-49)				Matrix: Water		Batch: 22B0333		
Pentachlorophenol (PCP)	ND	0.0952	0.190	ug/L	1	02/09/22 13:43		EPA 8270E
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery: 101 %		Limits: 43-140 %	1	02/09/22 13:43		EPA 8270E

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503-718-2323

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soil				
Batch: 22B0382								
Arsenic	3.44	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	Ja
Barium	67.9	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Beryllium	0.216	0.211	0.422	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Cadmium	1.20	0.211	0.422	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Chromium	12.7	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Cobalt	3.80	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Copper	48.2	2.11	4.22	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Lead	83.8	0.211	0.422	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Nickel	10.6	2.11	4.22	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Selenium	ND	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Thallium	ND	0.211	0.422	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Vanadium	21.7	2.11	4.22	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Zinc	1050	4.22	8.44	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soil				
Batch: 22B0382								
Arsenic	3.23	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	Ja
Barium	55.4	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Beryllium	0.200	0.189	0.378	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Cadmium	0.931	0.189	0.378	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Chromium	11.6	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Cobalt	4.45	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Copper	38.7	1.89	3.78	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Lead	50.1	0.189	0.378	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Nickel	11.1	1.89	3.78	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Selenium	ND	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Thallium	ND	0.189	0.378	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Vanadium	26.7	1.89	3.78	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Zinc	789	3.78	7.55	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soil				
Batch: 22B0382								
Arsenic	5.43	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B	

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soil				
Barium	101	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Beryllium	ND	0.454	0.907	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Cadmium	1.88	0.454	0.907	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Chromium	15.3	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Cobalt	6.42	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Copper	66.8	4.54	9.07	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Lead	86.0	0.454	0.907	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Nickel	20.2	4.54	9.07	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Selenium	ND	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Thallium	ND	0.454	0.907	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Vanadium	45.5	4.54	9.07	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
Zinc	3620	9.07	18.1	mg/kg dry	10	02/10/22 18:44	EPA 6020B	
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soil				
Batch: 22B0382								
Arsenic	4.65	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Barium	82.3	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Beryllium	0.443	0.308	0.615	mg/kg dry	10	02/10/22 18:49	EPA 6020B	Ja
Cadmium	0.387	0.308	0.615	mg/kg dry	10	02/10/22 18:49	EPA 6020B	Ja
Chromium	13.4	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Cobalt	4.84	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Copper	42.0	3.08	6.15	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Lead	14.8	0.308	0.615	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Nickel	12.1	3.08	6.15	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Selenium	ND	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Thallium	ND	0.308	0.615	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Vanadium	49.3	3.08	6.15	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
Zinc	405	6.15	12.3	mg/kg dry	10	02/10/22 18:49	EPA 6020B	
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soil				
Batch: 22B0382								
Arsenic	5.25	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Barium	98.4	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Beryllium	ND	0.519	1.04	mg/kg dry	10	02/10/22 18:53	EPA 6020B	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soil				
Chromium	16.4	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Cobalt	7.16	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Copper	67.4	5.19	10.4	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Lead	86.2	0.519	1.04	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Nickel	20.8	5.19	10.4	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Selenium	ND	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Thallium	ND	0.519	1.04	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Vanadium	50.4	5.19	10.4	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Zinc	3640	10.4	20.8	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
HA-102-Comp-0.5-1.0_0222 (A2B0202-05RE2)				Matrix: Soil				
Batch: 22B0382								
Cadmium	0.946	0.519	1.04	mg/kg dry	10	02/16/22 15:35	EPA 6020B	Ja
HA-102-Comp-1.0-2.0_0222 (A2B0202-06)				Matrix: Soil				
Batch: 22B0382								
Arsenic	6.30	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Barium	104	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Beryllium	0.570	0.327	0.653	mg/kg dry	10	02/10/22 18:58	EPA 6020B	Ja
Cadmium	0.651	0.327	0.653	mg/kg dry	10	02/10/22 18:58	EPA 6020B	Ja
Chromium	18.2	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Cobalt	5.18	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Copper	53.7	3.27	6.53	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Lead	24.6	0.327	0.653	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Nickel	15.6	3.27	6.53	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Selenium	ND	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Thallium	ND	0.327	0.653	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Vanadium	55.3	3.27	6.53	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Zinc	384	6.53	13.1	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soil				
Batch: 22B0382								
Arsenic	3.97	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	Ja
Barium	97.5	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soil				
Beryllium	ND	0.455	0.910	mg/kg dry	10	02/10/22 19:03	EPA 6020B	Ja
Cadmium	0.795	0.455	0.910	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Chromium	18.8	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Cobalt	5.54	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Copper	52.8	4.55	9.10	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Lead	121	0.455	0.910	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Nickel	18.5	4.55	9.10	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Selenium	ND	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Thallium	ND	0.455	0.910	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Vanadium	45.7	4.55	9.10	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Zinc	571	9.10	18.2	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
HA-03-Comp-1.0-2.0_0222 (A2B0202-08)				Matrix: Soil				
Batch: 22B0382								
Arsenic	1.43	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	Ja
Barium	43.4	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Beryllium	ND	0.228	0.456	mg/kg dry	10	02/10/22 19:08	EPA 6020B	Ja
Cadmium	ND	0.228	0.456	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Chromium	9.59	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Cobalt	1.82	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Copper	13.4	2.28	4.56	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Lead	5.01	0.228	0.456	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Nickel	6.17	2.28	4.56	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Selenium	ND	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Thallium	ND	0.228	0.456	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Vanadium	27.4	2.28	4.56	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Zinc	93.5	4.56	9.13	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
HA-04-Comp-0.0-0.5_0222 (A2B0202-09)				Matrix: Soil				
Batch: 22B0382								
Arsenic	4.40	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	Ja
Barium	59.6	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Beryllium	ND	0.727	1.45	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Cadmium	ND	0.727	1.45	mg/kg dry	10	02/10/22 19:12	EPA 6020B	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067**Project Manager: **Josh Bale**Report ID:**A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-04-Comp-0.0-0.5_0222 (A2B0202-09) Matrix: Soil								
Chromium	8.26	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Cobalt	ND	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Copper	24.1	7.27	14.5	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Lead	256	0.727	1.45	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Nickel	8.26	7.27	14.5	mg/kg dry	10	02/10/22 19:12	EPA 6020B	Ja
Selenium	ND	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Thallium	ND	0.727	1.45	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Vanadium	17.6	7.27	14.5	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Zinc	592	14.5	29.1	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
HA-04-Comp-0.5-1.0_0222 (A2B0202-10) Matrix: Soil								
Batch: 22B0382								
Arsenic	2.00	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	Ja
Barium	68.0	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Beryllium	ND	0.289	0.578	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Cadmium	ND	0.289	0.578	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Chromium	15.7	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Cobalt	2.24	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	Ja
Copper	17.8	2.89	5.78	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Lead	10.3	0.289	0.578	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Nickel	10.2	2.89	5.78	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Selenium	ND	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Thallium	ND	0.289	0.578	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Vanadium	29.7	2.89	5.78	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Zinc	86.6	5.78	11.6	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
HA-04-Comp-1.0-2.0_0222 (A2B0202-11) Matrix: Soil								
Batch: 22B0382								
Arsenic	1.19	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	Ja
Barium	40.0	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Beryllium	ND	0.188	0.376	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Cadmium	ND	0.188	0.376	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Chromium	9.23	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Cobalt	2.10	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	

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Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-04-Comp-1.0-2.0_0222 (A2B0202-11)				Matrix: Soil				
Copper	10.6	1.88	3.76	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Lead	3.29	0.188	0.376	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Nickel	7.14	1.88	3.76	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Selenium	ND	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Thallium	ND	0.188	0.376	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Vanadium	19.3	1.88	3.76	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Zinc	52.6	3.76	7.53	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12)				Matrix: Soil				
Batch: 22B0432								
Arsenic	2.82	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	Ja
Barium	46.9	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Chromium	11.6	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Cobalt	2.11	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	Ja
Copper	16.0	3.76	7.52	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Lead	118	0.376	0.752	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Nickel	7.38	3.76	7.52	mg/kg dry	10	02/14/22 14:38	EPA 6020B	Ja
Selenium	ND	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Thallium	ND	0.376	0.752	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Vanadium	25.4	3.76	7.52	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Zinc	88.7	7.52	15.0	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12RE1)				Matrix: Soil				
Batch: 22B0432								
Beryllium	ND	0.376	0.752	mg/kg dry	10	02/16/22 15:40	EPA 6020B	
Cadmium	0.393	0.376	0.752	mg/kg dry	10	02/16/22 15:40	EPA 6020B	Ja
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soil				
Batch: 22B0432								
Arsenic	2.95	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	Ja
Barium	67.3	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Chromium	13.1	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Cobalt	2.92	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	Ja
Copper	17.4	3.13	6.25	mg/kg dry	10	02/14/22 15:28	EPA 6020B	

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soil				
Lead	26.8	0.313	0.625	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Nickel	8.87	3.13	6.25	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Selenium	ND	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Thallium	ND	0.313	0.625	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Vanadium	32.3	3.13	6.25	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Zinc	51.2	6.25	12.5	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
HA-05-Comp-0.5-1.0_0222 (A2B0202-13RE1)				Matrix: Soil				
Batch: 22B0432								
Beryllium	ND	0.313	0.625	mg/kg dry	10	02/16/22 16:03	EPA 6020B	
Cadmium	ND	0.313	0.625	mg/kg dry	10	02/16/22 16:03	EPA 6020B	
HA-05-Comp-1.0-2.0_0222 (A2B0202-14)				Matrix: Soil				
Batch: 22B0432								
Arsenic	1.25	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	Ja
Barium	45.4	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Chromium	11.4	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Cobalt	2.23	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Copper	13.7	1.89	3.79	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Lead	7.51	0.189	0.379	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Nickel	6.12	1.89	3.79	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Selenium	ND	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Thallium	ND	0.189	0.379	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Vanadium	28.4	1.89	3.79	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Zinc	20.3	3.79	7.58	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
HA-05-Comp-1.0-2.0_0222 (A2B0202-14RE1)				Matrix: Soil				
Batch: 22B0432								
Beryllium	0.262	0.189	0.379	mg/kg dry	10	02/16/22 16:37	EPA 6020B	Ja
Cadmium	ND	0.189	0.379	mg/kg dry	10	02/16/22 16:37	EPA 6020B	
HA-01A-0.0-0.5_0222 (A2B0202-15)				Matrix: Soil				
Batch: 22B0503								
Arsenic	3.15	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Barium	41.8	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01A-0.0-0.5_0222 (A2B0202-15) Matrix: Soil								
Beryllium	0.228	0.162	0.323	mg/kg dry	10	02/16/22 13:14	EPA 6020B	Ja
Cadmium	0.847	0.162	0.323	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Chromium	12.9	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Cobalt	6.34	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Copper	86.9	1.62	3.23	mg/kg dry	10	02/16/22 13:14	EPA 6020B	Q-42
Lead	149	0.162	0.323	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Selenium	ND	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Thallium	ND	0.162	0.323	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Vanadium	26.1	1.62	3.23	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Zinc	389	3.23	6.46	mg/kg dry	10	02/16/22 13:14	EPA 6020B	Q-42
HA-01A-0.0-0.5_0222 (A2B0202-15RE1) Matrix: Soil								
Batch: 22B0503								
Nickel	16.2	1.62	3.23	mg/kg dry	10	02/17/22 22:30	EPA 6020B	
HA-01B-0.0-0.5_0222 (A2B0202-16) Matrix: Soil								
Batch: 22B0503								
Arsenic	7.79	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Barium	100	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Beryllium	ND	0.407	0.815	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Cadmium	3.41	0.407	0.815	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Chromium	20.3	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Cobalt	8.70	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Copper	133	4.07	8.15	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Lead	168	0.407	0.815	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Selenium	ND	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Thallium	ND	0.407	0.815	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Vanadium	27.3	4.07	8.15	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Zinc	1790	8.15	16.3	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
HA-01B-0.0-0.5_0222 (A2B0202-16RE1) Matrix: Soil								
Batch: 22B0503								
Nickel	25.8	4.07	8.15	mg/kg dry	10	02/17/22 22:44	EPA 6020B	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01C-0.0-0.5_0222 (A2B0202-17)				Matrix: Soil				
Batch: 22B0503								
Arsenic	4.73	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	Ja
Barium	265	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Beryllium	ND	0.918	1.84	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Cadmium	10.9	0.918	1.84	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Chromium	17.6	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Cobalt	10.1	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Copper	166	9.18	18.4	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Lead	283	0.918	1.84	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Selenium	ND	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Thallium	ND	0.918	1.84	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Vanadium	26.8	9.18	18.4	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Zinc	5780	18.4	36.7	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
HA-01C-0.0-0.5_0222 (A2B0202-17RE1)				Matrix: Soil				
Batch: 22B0503								
Nickel	61.2	9.18	18.4	mg/kg dry	10	02/17/22 22:49	EPA 6020B	
HA-01D-0.0-0.5_0222 (A2B0202-18)				Matrix: Soil				
Batch: 22B0503								
Arsenic	10.5	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Barium	169	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Beryllium	ND	0.394	0.788	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Cadmium	6.33	0.394	0.788	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Chromium	20.5	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Cobalt	17.8	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Copper	140	3.94	7.88	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Lead	325	0.394	0.788	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Selenium	ND	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Thallium	ND	0.394	0.788	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Vanadium	21.1	3.94	7.88	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
HA-01D-0.0-0.5_0222 (A2B0202-18RE1)				Matrix: Soil				
Batch: 22B0503								

Apex Laboratories

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ANALYTICAL REPORT

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01D-0.0-0.5_0222 (A2B0202-18RE1)				Matrix: Soil				
Zinc	14000	78.8	158	mg/kg dry	100	02/16/22 14:07	EPA 6020B	
HA-01D-0.0-0.5_0222 (A2B0202-18RE2)				Matrix: Soil				
Batch: 22B0503								
Nickel	37.7	3.94	7.88	mg/kg dry	10	02/17/22 22:54	EPA 6020B	
HA-01E-0.0-0.5_0222 (A2B0202-19)				Matrix: Soil				
Batch: 22B0503								
Arsenic	1.70	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Barium	44.8	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Beryllium	0.174	0.135	0.270	mg/kg dry	10	02/16/22 14:11	EPA 6020B	Ja
Cadmium	0.167	0.135	0.270	mg/kg dry	10	02/16/22 14:11	EPA 6020B	Ja
Chromium	5.39	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Cobalt	3.55	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Copper	15.4	1.35	2.70	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Lead	17.2	0.135	0.270	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Nickel	2.50	1.35	2.70	mg/kg dry	10	02/16/22 14:11	EPA 6020B	Ja
Selenium	ND	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Thallium	ND	0.135	0.270	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Vanadium	15.0	1.35	2.70	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Zinc	110	2.70	5.39	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
HA-02A-0.0-0.5_0222 (A2B0202-20)				Matrix: Soil				
Batch: 22B0503								
Arsenic	1.90	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	Ja
Barium	51.1	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Beryllium	ND	0.378	0.756	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Cadmium	0.398	0.378	0.756	mg/kg dry	10	02/16/22 14:16	EPA 6020B	Ja
Chromium	8.93	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Cobalt	2.59	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	Ja
Copper	29.5	3.78	7.56	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Lead	38.5	0.378	0.756	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Nickel	ND	3.78	7.56	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Selenium	ND	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067**Project Manager: **Josh Bale**Report ID:**A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02A-0.0-0.5_0222 (A2B0202-20) Matrix: Soil								
Thallium	ND	0.378	0.756	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Vanadium	19.3	3.78	7.56	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Zinc	75.5	7.56	15.1	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
HA-02B-0.0-0.5_0222 (A2B0202-21) Matrix: Soil								
Batch: 22B0503								
Arsenic	3.10	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Barium	51.3	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Beryllium	0.303	0.303	0.606	mg/kg dry	10	02/16/22 14:21	EPA 6020B	Ja
Cadmium	0.738	0.303	0.606	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Chromium	15.6	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Cobalt	4.64	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Copper	44.0	3.03	6.06	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Lead	86.6	0.303	0.606	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Selenium	ND	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Thallium	ND	0.303	0.606	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Vanadium	23.3	3.03	6.06	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Zinc	486	6.06	12.1	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
HA-02B-0.0-0.5_0222 (A2B0202-21RE1) Matrix: Soil								
Batch: 22B0503								
Nickel	13.6	3.03	6.06	mg/kg dry	10	02/17/22 22:58	EPA 6020B	
HA-02C-0.0-0.5_0222 (A2B0202-22) Matrix: Soil								
Batch: 22B0503								
Arsenic	ND	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Barium	81.6	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Beryllium	ND	0.850	1.70	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Cadmium	4.51	0.850	1.70	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Chromium	18.3	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Cobalt	5.52	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	Ja
Copper	208	8.50	17.0	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Lead	172	0.850	1.70	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Selenium	ND	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067**Project Manager: **Josh Bale**Report ID:**A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02C-0.0-0.5_0222 (A2B0202-22)				Matrix: Soil				
Thallium	ND	0.850	1.70	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Vanadium	29.5	8.50	17.0	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Zinc	1940	17.0	34.0	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
HA-02C-0.0-0.5_0222 (A2B0202-22RE1)				Matrix: Soil				
Batch: 22B0503								
Nickel	51.4	8.50	17.0	mg/kg dry	10	02/17/22 23:03	EPA 6020B	
HA-02D-0.0-0.5_0222 (A2B0202-23)				Matrix: Soil				
Batch: 22B0503								
Arsenic	6.01	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	Ja
Barium	116	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Beryllium	ND	0.747	1.49	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Cadmium	5.03	0.747	1.49	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Chromium	10.1	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Cobalt	6.37	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	Ja
Copper	61.1	7.47	14.9	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Lead	163	0.747	1.49	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Selenium	ND	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Thallium	ND	0.747	1.49	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Vanadium	21.2	7.47	14.9	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Zinc	3420	14.9	29.9	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
HA-02D-0.0-0.5_0222 (A2B0202-23RE1)				Matrix: Soil				
Batch: 22B0503								
Nickel	47.3	7.47	14.9	mg/kg dry	10	02/17/22 23:08	EPA 6020B	
HA-02E-0.0-0.5_0222 (A2B0202-24)				Matrix: Soil				
Batch: 22B0503								
Arsenic	12.5	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Barium	102	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Beryllium	ND	0.426	0.853	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Cadmium	1.23	0.426	0.853	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Chromium	15.6	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02E-0.0-0.5_0222 (A2B0202-24)				Matrix: Soil				
Cobalt	82.3	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Copper	182	4.26	8.53	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Lead	80.4	0.426	0.853	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Selenium	ND	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Thallium	ND	0.426	0.853	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Vanadium	28.4	4.26	8.53	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Zinc	3920	8.53	17.1	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
HA-02E-0.0-0.5_0222 (A2B0202-24RE1)				Matrix: Soil				
Batch: 22B0503								
Nickel	22.9	4.26	8.53	mg/kg dry	10	02/17/22 23:22	EPA 6020B	
HA-03A-0.0-0.5_0222 (A2B0202-25)				Matrix: Soil				
Batch: 22B0503								
Arsenic	4.83	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	Ja
Barium	111	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Beryllium	0.561	0.543	1.09	mg/kg dry	10	02/16/22 14:57	EPA 6020B	Ja
Cadmium	2.02	0.543	1.09	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Chromium	26.1	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Cobalt	5.32	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	Ja
Copper	123	5.43	10.9	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Lead	247	0.543	1.09	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Selenium	ND	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Thallium	ND	0.543	1.09	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Vanadium	38.8	5.43	10.9	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Zinc	380	10.9	21.7	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
HA-03A-0.0-0.5_0222 (A2B0202-25RE1)				Matrix: Soil				
Batch: 22B0503								
Nickel	25.3	5.43	10.9	mg/kg dry	10	02/17/22 23:27	EPA 6020B	
HA-03B-0.0-0.5_0222 (A2B0202-26)				Matrix: Soil				
Batch: 22B0503								
Arsenic	2.68	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	Ja

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03B-0.0-0.5_0222 (A2B0202-26)				Matrix: Soil				
Barium	56.1	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	Ja
Beryllium	ND	0.361	0.722	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Cadmium	ND	0.361	0.722	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Chromium	9.67	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Cobalt	2.40	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Copper	21.2	3.61	7.22	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Lead	88.9	0.361	0.722	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Nickel	ND	3.61	7.22	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Selenium	ND	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Thallium	ND	0.361	0.722	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Vanadium	23.3	3.61	7.22	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Zinc	107	7.22	14.4	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
HA-03C-0.0-0.5_0222 (A2B0202-27)				Matrix: Soil				
Batch: 22B0503								
Arsenic	ND	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Barium	66.8	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Beryllium	ND	0.683	1.37	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Cadmium	1.37	0.683	1.37	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Chromium	12.7	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Cobalt	ND	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Copper	27.3	6.83	13.7	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Lead	278	0.683	1.37	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Nickel	ND	6.83	13.7	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Selenium	ND	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Thallium	ND	0.683	1.37	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Vanadium	22.0	6.83	13.7	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Zinc	909	13.7	27.3	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
HA-03D-0.0-0.5_0222 (A2B0202-28)				Matrix: Soil				
Batch: 22B0503								
Arsenic	ND	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Barium	58.0	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Beryllium	ND	0.775	1.55	mg/kg dry	10	02/16/22 15:11	EPA 6020B	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067**Project Manager: **Josh Bale**Report ID:**A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03D-0.0-0.5_0222 (A2B0202-28) Matrix: Soil								
Cadmium	1.55	0.775	1.55	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Chromium	6.21	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	Ja
Cobalt	ND	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Copper	28.9	7.75	15.5	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Lead	141	0.775	1.55	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Nickel	ND	7.75	15.5	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Selenium	ND	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Thallium	ND	0.775	1.55	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Vanadium	22.9	7.75	15.5	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Zinc	2310	15.5	31.0	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
HA-03E-0.0-0.5_0222 (A2B0202-29) Matrix: Soil								
Batch: 22B0503								
Arsenic	ND	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Barium	65.3	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Beryllium	ND	0.814	1.63	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Cadmium	3.66	0.814	1.63	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Chromium	4.41	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	Ja
Cobalt	ND	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Copper	33.7	8.14	16.3	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Lead	62.3	0.814	1.63	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Nickel	ND	8.14	16.3	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Selenium	ND	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Thallium	ND	0.814	1.63	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Vanadium	16.5	8.14	16.3	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Zinc	3600	16.3	32.6	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
EB-02 (A2B0202-34RE1) Matrix: Water								
Batch: 22B0387								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 16:42	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 16:42	EPA 6020B	
PZ-01_0222 (A2B0202-35) Matrix: Water								
Batch: 22B0387								

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)		Matrix: Water						
Iron	7010	25.0	50.0	ug/L	1	02/14/22 18:35	EPA 6020B	
PZ-01_0222 (A2B0202-35RE1)		Matrix: Water						
Batch: 22B0387								
Beryllium	0.240	0.100	0.200	ug/L	1	02/16/22 16:47	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 16:47	EPA 6020B	
PZ-02_0222 (A2B0202-36)		Matrix: Water						
Batch: 22B0387								
Iron	3650	25.0	50.0	ug/L	1	02/14/22 18:40	EPA 6020B	
PZ-02_0222 (A2B0202-36RE1)		Matrix: Water						
Batch: 22B0387								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 16:52	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 16:52	EPA 6020B	
PZ-102_0222 (A2B0202-37)		Matrix: Water						
Batch: 22B0387								
Iron	3570	25.0	50.0	ug/L	1	02/14/22 18:45	EPA 6020B	
PZ-102_0222 (A2B0202-37RE1)		Matrix: Water						
Batch: 22B0387								
Arsenic	1.66	0.500	1.00	ug/L	1	02/16/22 16:57	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 16:57	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 16:57	EPA 6020B	
PZ-03_0222 (A2B0202-38)		Matrix: Water						
Batch: 22B0387								
Iron	1190	25.0	50.0	ug/L	1	02/14/22 18:50	EPA 6020B	
PZ-03_0222 (A2B0202-38RE1)		Matrix: Water						
Batch: 22B0387								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:01	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:01	EPA 6020B	
PZ-04_0222 (A2B0202-39)		Matrix: Water						

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-04_0222 (A2B0202-39) Matrix: Water								
Batch: 22B0387								
Iron	5780	25.0	50.0	ug/L	1	02/14/22 18:54	EPA 6020B	
PZ-04_0222 (A2B0202-39RE1) Matrix: Water								
Batch: 22B0387								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:06	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:06	EPA 6020B	
PZ-05_0222 (A2B0202-40) Matrix: Water								
Batch: 22B0387								
Iron	192	25.0	50.0	ug/L	1	02/14/22 18:59	EPA 6020B	
PZ-05_0222 (A2B0202-40RE1) Matrix: Water								
Batch: 22B0387								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:11	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:11	EPA 6020B	
SW-09_0222 (A2B0202-41) Matrix: Water								
Batch: 22B0387								
Iron	301	25.0	50.0	ug/L	1	02/14/22 19:04	EPA 6020B	
SW-09_0222 (A2B0202-41RE1) Matrix: Water								
Batch: 22B0387								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:16	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:16	EPA 6020B	
SW-109_0222 (A2B0202-42) Matrix: Water								
Batch: 22B0435								
Iron	120	25.0	50.0	ug/L	1	02/14/22 22:05	EPA 6020B	
SW-109_0222 (A2B0202-42RE1) Matrix: Water								
Batch: 22B0435								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:20	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:20	EPA 6020B	
SW-07_0222 (A2B0202-43) Matrix: Water								

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43) Matrix: Water								
Batch: 22B0435								
Iron	80.3	25.0	50.0	ug/L	1	02/14/22 22:10	EPA 6020B	
SW-07_0222 (A2B0202-43RE1) Matrix: Water								
Batch: 22B0435								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:35	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:35	EPA 6020B	
SW-08_0222 (A2B0202-44) Matrix: Water								
Batch: 22B0435								
Iron	38.4	25.0	50.0	ug/L	1	02/14/22 22:24	EPA 6020B	Ja
SW-08_0222 (A2B0202-44RE1) Matrix: Water								
Batch: 22B0435								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:39	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:39	EPA 6020B	
SW-10_0222 (A2B0202-45) Matrix: Water								
Batch: 22B0435								
Iron	149	25.0	50.0	ug/L	1	02/14/22 22:29	EPA 6020B	
SW-10_0222 (A2B0202-45RE1) Matrix: Water								
Batch: 22B0435								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:44	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:44	EPA 6020B	
SW-11_0222 (A2B0202-46) Matrix: Water								
Batch: 22B0435								
Iron	289	25.0	50.0	ug/L	1	02/14/22 22:34	EPA 6020B	
SW-11_0222 (A2B0202-46RE1) Matrix: Water								
Batch: 22B0435								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:49	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:49	EPA 6020B	
SW-12_0222 (A2B0202-47) Matrix: Water								

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-12_0222 (A2B0202-47)		Matrix: Water						
Batch: 22B0435								
Iron	ND	26.8	53.6	ug/L	1	02/14/22 22:39	EPA 6020B	R-03
SW-12_0222 (A2B0202-47RE1)		Matrix: Water						
Batch: 22B0435								
Beryllium	ND	0.107	0.214	ug/L	1	02/16/22 17:54	EPA 6020B	R-03
Cadmium	0.349	0.107	0.214	ug/L	1	02/16/22 17:54	EPA 6020B	R-03
SW-13_0222 (A2B0202-48)		Matrix: Water						
Batch: 22B0435								
Iron	ND	25.0	50.0	ug/L	1	02/14/22 22:43	EPA 6020B	
SW-13_0222 (A2B0202-48RE1)		Matrix: Water						
Batch: 22B0435								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:58	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:58	EPA 6020B	
SW-14_0222 (A2B0202-49)		Matrix: Water						
Batch: 22B0435								
Iron	197	25.0	50.0	ug/L	1	02/14/22 22:48	EPA 6020B	
SW-14_0222 (A2B0202-49RE1)		Matrix: Water						
Batch: 22B0435								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 18:03	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 18:03	EPA 6020B	

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Portland, OR 97209

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Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB-01 (A2B0202-33)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Barium	0.505	0.500	1.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	Ja
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
EB-02 (A2B0202-34)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Barium	1.40	0.500	1.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Copper	1.42	1.00	2.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	Ja
Lead	0.108	0.100	0.200	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	Ja
Nickel	2.82	1.00	2.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Zinc	3.10	2.00	4.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	Ja
PZ-01_0222 (A2B0202-35)		Matrix: Water						
Batch: 22B0436								
Arsenic	1.05	0.500	1.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	

Apex Laboratories

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ANALYTICAL REPORT

AMENDED REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35) Matrix: Water								
Barium	12.1	0.500	1.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Cobalt	0.751	0.500	1.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	Ja
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Iron	1200	25.0	50.0	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Nickel	1.24	1.00	2.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	Ja
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
PZ-02_0222 (A2B0202-36) Matrix: Water								
Batch: 22B0436								
Arsenic	1.41	0.500	1.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Barium	35.7	0.500	1.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Iron	3240	25.0	50.0	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Zinc	2.36	2.00	4.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	Ja
PZ-102_0222 (A2B0202-37) Matrix: Water								
Batch: 22B0436								
Arsenic	1.51	0.500	1.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-102_0222 (A2B0202-37)		Matrix: Water						
Barium	35.9	0.500	1.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Iron	3220	25.0	50.0	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Vanadium	1.22	1.00	2.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	Ja
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
PZ-03_0222 (A2B0202-38)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Barium	4.52	0.500	1.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Iron	684	25.0	50.0	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Vanadium	1.33	1.00	2.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	Ja
Zinc	3.41	2.00	4.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	Ja
PZ-04_0222 (A2B0202-39)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	

Apex Laboratories

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-04_0222 (A2B0202-39)		Matrix: Water						
Barium	21.6	0.500	1.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Iron	9320	25.0	50.0	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Vanadium	1.44	1.00	2.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	Ja
Zinc	3.67	2.00	4.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	Ja
PZ-05_0222 (A2B0202-40)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Barium	3.04	0.500	1.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Vanadium	1.61	1.00	2.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	Ja
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
SW-09_0222 (A2B0202-41)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	

Apex Laboratories

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-09_0222 (A2B0202-41)		Matrix: Water						
Barium	3.17	0.500	1.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Vanadium	1.83	1.00	2.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	Ja
Zinc	12.1	2.00	4.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
SW-109_0222 (A2B0202-42)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Barium	3.12	0.500	1.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Vanadium	1.89	1.00	2.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	Ja
Zinc	14.0	2.00	4.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
SW-07_0222 (A2B0202-43)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	

Apex Laboratories

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)		Matrix: Water						
Barium	3.62	0.500	1.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	Ja
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Iron	30.0	25.0	50.0	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Vanadium	1.98	1.00	2.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Zinc	3.73	2.00	4.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	Ja
SW-08_0222 (A2B0202-44)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	Ja
Barium	2.73	0.500	1.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Vanadium	1.84	1.00	2.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Zinc	6.11	2.00	4.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
SW-10_0222 (A2B0202-45)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	

Apex Laboratories

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-10_0222 (A2B0202-45)		Matrix: Water						
Barium	26.9	0.500	1.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	Ja
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Iron	33.2	25.0	50.0	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	Ja
Vanadium	1.21	1.00	2.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
Zinc	90.3	2.00	4.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	
SW-11_0222 (A2B0202-46)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	Ja
Barium	8.06	0.500	1.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Nickel	1.17	1.00	2.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	Ja
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Vanadium	1.45	1.00	2.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
Zinc	49.0	2.00	4.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	
SW-12_0222 (A2B0202-47)		Matrix: Water						
Batch: 22B0436								
Arsenic	0.909	0.500	1.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	Ja

Apex Laboratories

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-12_0222 (A2B0202-47)		Matrix: Water						
Barium	56.0	0.500	1.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Cadmium	0.117	0.100	0.200	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	Ja
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Copper	1.24	1.00	2.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	Ja
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Nickel	1.13	1.00	2.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	Ja
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Vanadium	3.17	1.00	2.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Zinc	137	2.00	4.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
SW-13_0222 (A2B0202-48)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Barium	2.39	0.500	1.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Vanadium	1.75	1.00	2.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	Ja
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
SW-14_0222 (A2B0202-49)		Matrix: Water						
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-14_0222 (A2B0202-49)		Matrix: Water						
Barium	5.50	0.500	1.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	
Copper	2.00	1.00	2.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	
Iron	25.4	25.0	50.0	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	Ja
Lead	0.429	0.100	0.200	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	
Nickel	1.46	1.00	2.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	Ja
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	
Vanadium	1.73	1.00	2.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	Ja
Zinc	30.4	2.00	4.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	

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ANALYTICAL SAMPLE RESULTS

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soil		Batch: 22B0347		
Chromium (VI)	ND	2.06	4.12	mg/kg dry	5	02/10/22 17:32	EPA 7196A	Q-57, R-04
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soil		Batch: 22B0347		
Chromium (VI)	ND	1.94	3.88	mg/kg dry	5	02/10/22 17:33	EPA 7196A	Q-57, R-04
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soil		Batch: 22B0347		
Chromium (VI)	ND	4.73	9.46	mg/kg dry	5	02/10/22 17:33	EPA 7196A	Q-57, R-04
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soil		Batch: 22B0347		
Chromium (VI)	ND	6.31	12.6	mg/kg dry	10	02/10/22 17:33	EPA 7196A	Q-57, R-04
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soil		Batch: 22B0347		
Chromium (VI)	ND	4.77	9.55	mg/kg dry	5	02/10/22 17:34	EPA 7196A	Q-57, R-04
HA-102-Comp-1.0-2.0_0222 (A2B0202-06)				Matrix: Soil		Batch: 22B0347		
Chromium (VI)	ND	6.60	13.2	mg/kg dry	10	02/10/22 17:35	EPA 7196A	Q-57, R-04
HA-03-Comp-0.5-1.0_0222 (A2B0202-07RE1)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	8.65	17.3	mg/kg dry	10	02/14/22 12:26	EPA 7196A	Q-57, R-04
HA-03-Comp-1.0-2.0_0222 (A2B0202-08RE1)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	4.28	8.55	mg/kg dry	10	02/14/22 12:26	EPA 7196A	Q-57, R-04
HA-04-Comp-0.0-0.5_0222 (A2B0202-09RE1)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	12.9	25.8	mg/kg dry	10	02/14/22 12:27	EPA 7196A	Q-57, R-04
HA-04-Comp-0.5-1.0_0222 (A2B0202-10RE1)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	5.85	11.7	mg/kg dry	10	02/14/22 12:27	EPA 7196A	Q-57, R-04
HA-04-Comp-1.0-2.0_0222 (A2B0202-11RE1)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	3.83	7.66	mg/kg dry	10	02/14/22 12:27	EPA 7196A	Q-57, R-04
HA-05-Comp-0.0-0.5_0222 (A2B0202-12RE1)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	7.63	15.3	mg/kg dry	10	02/14/22 12:28	EPA 7196A	Q-57, R-04
HA-05-Comp-0.5-1.0_0222 (A2B0202-13RE1)				Matrix: Soil		Batch: 22B0439		

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05-Comp-0.5-1.0_0222 (A2B0202-13RE1)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	6.24	12.5	mg/kg dry	10	02/14/22 12:28	EPA 7196A	Q-57, R-04
HA-05-Comp-1.0-2.0_0222 (A2B0202-14RE1)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	3.79	7.57	mg/kg dry	10	02/14/22 12:29	EPA 7196A	Q-57, R-04
HA-01A-0.0-0.5_0222 (A2B0202-15)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	2.99	5.99	mg/kg dry	10	02/14/22 12:30	EPA 7196A	Q-42, Q-57, R-04
HA-01B-0.0-0.5_0222 (A2B0202-16)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	7.87	15.7	mg/kg dry	10	02/14/22 12:36	EPA 7196A	Q-57, R-04
HA-01C-0.0-0.5_0222 (A2B0202-17)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	17.0	33.9	mg/kg dry	10	02/14/22 12:36	EPA 7196A	Q-57, R-04
HA-01D-0.0-0.5_0222 (A2B0202-18)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	8.72	15.1	mg/kg dry	10	02/14/22 12:36	EPA 7196A	Q-57, R-04
HA-01E-0.0-0.5_0222 (A2B0202-19)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	2.72	5.43	mg/kg dry	10	02/14/22 12:37	EPA 7196A	Q-57, R-04
HA-02A-0.0-0.5_0222 (A2B0202-20)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	7.13	14.3	mg/kg dry	10	02/14/22 12:37	EPA 7196A	Q-57, R-04
HA-02B-0.0-0.5_0222 (A2B0202-21RE1)				Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	5.63	11.3	mg/kg dry	10	02/21/22 15:22	EPA 7196A	Q-42, Q-57, R-04
HA-02C-0.0-0.5_0222 (A2B0202-22RE1)				Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	16.7	33.4	mg/kg dry	10	02/21/22 15:28	EPA 7196A	R-04, Q-57
HA-02D-0.0-0.5_0222 (A2B0202-23RE1)				Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	14.7	29.3	mg/kg dry	10	02/21/22 15:29	EPA 7196A	Q-57, R-04
HA-02E-0.0-0.5_0222 (A2B0202-24RE1)				Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	7.78	15.6	mg/kg dry	10	02/21/22 15:29	EPA 7196A	Q-57, R-04

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GSI Water Solutions

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Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03A-0.0-0.5_0222 (A2B0202-25RE1)				Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	10.6	21.2	mg/kg dry	10	02/21/22 15:29	EPA 7196A	Q-57, R-04
HA-03B-0.0-0.5_0222 (A2B0202-26RE1)				Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	6.84	13.7	mg/kg dry	10	02/21/22 15:30	EPA 7196A	Q-57, R-04
HA-03C-0.0-0.5_0222 (A2B0202-27RE1)				Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	13.1	26.2	mg/kg dry	10	02/21/22 15:30	EPA 7196A	Q-57, R-04
HA-03D-0.0-0.5_0222 (A2B0202-28RE1)				Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	14.9	29.8	mg/kg dry	10	02/21/22 15:30	EPA 7196A	Q-57, R-04
HA-03E-0.0-0.5_0222 (A2B0202-29RE1)				Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	16.1	32.2	mg/kg dry	10	02/21/22 15:31	EPA 7196A	Q-57, R-04

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ANALYTICAL SAMPLE RESULTS

Ammonia by Gas Diffusion and Colorimetric Detection

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Water		Batch: 22B0346		
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 15:20	SM 4500-NH3 G	
PZ-02_0222 (A2B0202-36)				Matrix: Water		Batch: 22B0346		
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 15:25	SM 4500-NH3 G	
PZ-102_0222 (A2B0202-37)				Matrix: Water		Batch: 22B0346		
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 15:26	SM 4500-NH3 G	
PZ-03_0222 (A2B0202-38)				Matrix: Water		Batch: 22B0346		
Ammonia as N	0.0420	0.0100	0.0200	mg/L	1	02/09/22 15:28	SM 4500-NH3 G	
PZ-04_0222 (A2B0202-39)				Matrix: Water		Batch: 22B0346		
Ammonia as N	0.223	0.0100	0.0200	mg/L	1	02/09/22 15:29	SM 4500-NH3 G	
PZ-05_0222 (A2B0202-40)				Matrix: Water		Batch: 22B0346		
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 15:31	SM 4500-NH3 G	
SW-09_0222 (A2B0202-41)				Matrix: Water		Batch: 22B0346		
Ammonia as N	0.0110	0.0100	0.0200	mg/L	1	02/09/22 15:40	SM 4500-NH3 G	Ja
SW-109_0222 (A2B0202-42RE1)				Matrix: Water		Batch: 22B0346		
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 16:55	SM 4500-NH3 G	
SW-07_0222 (A2B0202-43RE1)				Matrix: Water		Batch: 22B0346		
Ammonia as N	0.0140	0.0100	0.0200	mg/L	1	02/09/22 16:57	SM 4500-NH3 G	Ja
SW-08_0222 (A2B0202-44RE1)				Matrix: Water		Batch: 22B0346		
Ammonia as N	0.0170	0.0100	0.0200	mg/L	1	02/09/22 16:58	SM 4500-NH3 G	Ja
SW-10_0222 (A2B0202-45RE1)				Matrix: Water		Batch: 22B0346		
Ammonia as N	0.0300	0.0100	0.0200	mg/L	1	02/09/22 17:00	SM 4500-NH3 G	
SW-11_0222 (A2B0202-46RE1)				Matrix: Water		Batch: 22B0346		
Ammonia as N	0.0400	0.0100	0.0200	mg/L	1	02/09/22 17:01	SM 4500-NH3 G	
SW-12_0222 (A2B0202-47RE1)				Matrix: Water		Batch: 22B0346		

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ANALYTICAL SAMPLE RESULTS

Ammonia by Gas Diffusion and Colorimetric Detection

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-12_0222 (A2B0202-47RE1)				Matrix: Water		Batch: 22B0346		
Ammonia as N	0.0860	0.0100	0.0200	mg/L	1	02/09/22 17:03	SM 4500-NH3 G	
SW-13_0222 (A2B0202-48RE1)				Matrix: Water		Batch: 22B0346		
Ammonia as N	0.0150	0.0100	0.0200	mg/L	1	02/09/22 17:04	SM 4500-NH3 G	Ja
SW-14_0222 (A2B0202-49RE1)				Matrix: Water		Batch: 22B0346		
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 16:46	SM 4500-NH3 G	

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Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB-02 (A2B0202-34)		Matrix: Water						
Batch: 22B0241								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:04	EPA 300.0	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:04	EPA 300.0	
Sulfate	ND	0.500	1.00	mg/L	1	02/05/22 21:04	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 21:04	EPA 300.0	
PZ-01_0222 (A2B0202-35)		Matrix: Water						
Batch: 22B0241								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 17:49	EPA 300.0	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 17:49	EPA 300.0	
Sulfate	6.90	0.500	1.00	mg/L	1	02/05/22 17:49	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 17:49	EPA 300.0	
PZ-02_0222 (A2B0202-36)		Matrix: Water						
Batch: 22B0241								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 20:42	EPA 300.0	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 20:42	EPA 300.0	
Sulfate	9.08	0.500	1.00	mg/L	1	02/05/22 20:42	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 20:42	EPA 300.0	
PZ-102_0222 (A2B0202-37)		Matrix: Water						
Batch: 22B0241								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:47	EPA 300.0	H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:47	EPA 300.0	H-06
Sulfate	9.08	0.500	1.00	mg/L	1	02/05/22 21:47	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 21:47	EPA 300.0	
PZ-03_0222 (A2B0202-38)		Matrix: Water						
Batch: 22B0241								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:08	EPA 300.0	H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:08	EPA 300.0	H-06

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ANALYTICAL SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-03_0222 (A2B0202-38)				Matrix: Water				
Sulfate (Calculated)	3.42	0.500	1.00	mg/L	1	02/05/22 22:08	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 22:08	EPA 300.0	
PZ-04_0222 (A2B0202-39)				Matrix: Water				
Batch: 22B0241								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:30	EPA 300.0	H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:30	EPA 300.0	H-06
Sulfate (Calculated)	38.4	0.500	1.00	mg/L	1	02/05/22 22:30	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 22:30	EPA 300.0	
PZ-05_0222 (A2B0202-40)				Matrix: Water				
Batch: 22B0241								
Nitrate-Nitrogen	0.328	0.125	0.250	mg/L	1	02/05/22 18:54	EPA 300.0	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 18:54	EPA 300.0	
Sulfate (Calculated)	3.24	0.500	1.00	mg/L	1	02/05/22 18:54	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 18:54	EPA 300.0	
SW-09_0222 (A2B0202-41)				Matrix: Water				
Batch: 22B0241								
Nitrate-Nitrogen	0.202	0.125	0.250	mg/L	1	02/05/22 22:52	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:52	EPA 300.0	H-06
Sulfate (Calculated)	2.55	0.500	1.00	mg/L	1	02/05/22 22:52	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 22:52	EPA 300.0	
SW-109_0222 (A2B0202-42)				Matrix: Water				
Batch: 22B0241								
Nitrate-Nitrogen	0.203	0.125	0.250	mg/L	1	02/05/22 23:13	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 23:13	EPA 300.0	H-06
Sulfate (Calculated)	2.59	0.500	1.00	mg/L	1	02/05/22 23:13	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 23:13	EPA 300.0	

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43) Matrix: Water								
Batch: 22B0241								
Nitrate-Nitrogen	0.164	0.125	0.250	mg/L	1	02/05/22 23:35	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 23:35	EPA 300.0	H-06
Sulfate	2.39	0.500	1.00	mg/L	1	02/05/22 23:35	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 23:35	EPA 300.0	
SW-08_0222 (A2B0202-44) Matrix: Water								
Batch: 22B0241								
Nitrate-Nitrogen	0.217	0.125	0.250	mg/L	1	02/06/22 00:39	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/06/22 00:39	EPA 300.0	H-06
Sulfate	2.39	0.500	1.00	mg/L	1	02/06/22 00:39	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/06/22 00:39	EPA 300.0	
SW-10_0222 (A2B0202-45) Matrix: Water								
Batch: 22B0241								
Nitrate-Nitrogen	0.669	0.125	0.250	mg/L	1	02/06/22 01:01	EPA 300.0	H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/06/22 01:01	EPA 300.0	H-06
(Calculated)								
Nitrate+Nitrite Nitrogen	0.669	---	0.500	mg/L	1	02/06/22 01:01	EPA 300.0	
SW-10_0222 (A2B0202-45RE1) Matrix: Water								
Batch: 22B0241								
Sulfate	118	2.50	5.00	mg/L	5	02/07/22 13:38	EPA 300.0	
SW-11_0222 (A2B0202-46) Matrix: Water								
Batch: 22B0241								
Nitrate-Nitrogen	0.237	0.125	0.250	mg/L	1	02/06/22 01:22	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/06/22 01:22	EPA 300.0	H-06
Sulfate	8.41	0.500	1.00	mg/L	1	02/06/22 01:22	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/06/22 01:22	EPA 300.0	
SW-12_0222 (A2B0202-47) Matrix: Water								
Batch: 22B0241								

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503-718-2323

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067**Project Manager: **Josh Bale**Report ID:**A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-12_0222 (A2B0202-47)				Matrix: Water				
Nitrate-Nitrogen	4.33	0.125	0.250	mg/L	1	02/06/22 01:44	EPA 300.0	H-06
Nitrite-Nitrogen (Calculated)	ND	0.125	0.250	mg/L	1	02/06/22 01:44	EPA 300.0	H-06
Nitrate+Nitrite Nitrogen	4.33	---	0.500	mg/L	1	02/06/22 01:44	EPA 300.0	
SW-12_0222 (A2B0202-47RE1)				Matrix: Water				
Batch: 22B0241								
Sulfate	487	10.0	20.0	mg/L	20	02/07/22 14:00	EPA 300.0	
SW-13_0222 (A2B0202-48)				Matrix: Water				
Batch: 22B0241								
Nitrate-Nitrogen	0.236	0.125	0.250	mg/L	1	02/06/22 02:06	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/06/22 02:06	EPA 300.0	H-06
Sulfate (Calculated)	3.58	0.500	1.00	mg/L	1	02/06/22 02:06	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/06/22 02:06	EPA 300.0	
SW-14_0222 (A2B0202-49)				Matrix: Water				
Batch: 22B0241								
Nitrate-Nitrogen	0.221	0.125	0.250	mg/L	1	02/05/22 21:25	EPA 300.0	Ja
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:25	EPA 300.0	
Sulfate (Calculated)	3.26	0.500	1.00	mg/L	1	02/05/22 21:25	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND	---	0.500	mg/L	1	02/05/22 21:25	EPA 300.0	

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ANALYTICAL SAMPLE RESULTS

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35RE1)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	ND	1.00	1.00	mg/L	1	02/11/22 12:00	SM 5310 C	
PZ-02_0222 (A2B0202-36)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	ND	1.00	1.00	mg/L	1	02/10/22 19:06	SM 5310 C	
PZ-102_0222 (A2B0202-37)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	ND	1.00	1.00	mg/L	1	02/10/22 19:36	SM 5310 C	
PZ-03_0222 (A2B0202-38)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	2.66	1.00	1.00	mg/L	1	02/10/22 20:05	SM 5310 C	
PZ-04_0222 (A2B0202-39)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	2.83	1.00	1.00	mg/L	1	02/10/22 20:35	SM 5310 C	
PZ-05_0222 (A2B0202-40)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	1.62	1.00	1.00	mg/L	1	02/10/22 21:05	SM 5310 C	
SW-09_0222 (A2B0202-41)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	1.95	1.00	1.00	mg/L	1	02/10/22 21:35	SM 5310 C	
SW-109_0222 (A2B0202-42)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	1.84	1.00	1.00	mg/L	1	02/10/22 23:04	SM 5310 C	
SW-07_0222 (A2B0202-43)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	2.87	1.00	1.00	mg/L	1	02/10/22 23:34	SM 5310 C	
SW-08_0222 (A2B0202-44)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	1.70	1.00	1.00	mg/L	1	02/11/22 01:03	SM 5310 C	
SW-10_0222 (A2B0202-45)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	3.74	1.00	1.00	mg/L	1	02/11/22 01:33	SM 5310 C	
SW-11_0222 (A2B0202-46)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	2.80	1.00	1.00	mg/L	1	02/11/22 02:03	SM 5310 C	
SW-12_0222 (A2B0202-47)				Matrix: Water		Batch: 22B0383		

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GSI Water Solutions

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Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-12_0222 (A2B0202-47)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	3.46	1.00	1.00	mg/L	1	02/11/22 02:33	SM 5310 C	
SW-13_0222 (A2B0202-48)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	1.73	1.00	1.00	mg/L	1	02/11/22 03:03	SM 5310 C	
SW-14_0222 (A2B0202-49)				Matrix: Water		Batch: 22B0383		
Total Organic Carbon	1.99	1.00	1.00	mg/L	1	02/11/22 03:33	SM 5310 C	

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ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	94.8	20.0	20.0	mg CaCO3/L	1	02/10/22 15:37	SM 2320 B	
Bicarbonate Alkalinity	94.8	20.0	20.0	mg CaCO3/L	1	02/10/22 15:37	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:37	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:37	SM 2320 B	
PZ-02_0222 (A2B0202-36)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	80.8	20.0	20.0	mg CaCO3/L	1	02/10/22 15:48	SM 2320 B	
Bicarbonate Alkalinity	80.8	20.0	20.0	mg CaCO3/L	1	02/10/22 15:48	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:48	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:48	SM 2320 B	
PZ-102_0222 (A2B0202-37)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	79.2	20.0	20.0	mg CaCO3/L	1	02/10/22 15:57	SM 2320 B	
Bicarbonate Alkalinity	79.2	20.0	20.0	mg CaCO3/L	1	02/10/22 15:57	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:57	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:57	SM 2320 B	
PZ-03_0222 (A2B0202-38)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	40.0	20.0	20.0	mg CaCO3/L	1	02/10/22 16:04	SM 2320 B	
Bicarbonate Alkalinity	40.0	20.0	20.0	mg CaCO3/L	1	02/10/22 16:04	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:04	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:04	SM 2320 B	
PZ-04_0222 (A2B0202-39)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	64.5	20.0	20.0	mg CaCO3/L	1	02/10/22 16:13	SM 2320 B	
Bicarbonate Alkalinity	64.5	20.0	20.0	mg CaCO3/L	1	02/10/22 16:13	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:13	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:13	SM 2320 B	
PZ-05_0222 (A2B0202-40)				Matrix: Water				

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-05_0222 (A2B0202-40)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	38.7	20.0	20.0	mg CaCO3/L	1	02/10/22 16:23	SM 2320 B	
Bicarbonate Alkalinity	38.7	20.0	20.0	mg CaCO3/L	1	02/10/22 16:23	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:23	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:23	SM 2320 B	
SW-09_0222 (A2B0202-41)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	35.5	20.0	20.0	mg CaCO3/L	1	02/10/22 16:31	SM 2320 B	
Bicarbonate Alkalinity	35.5	20.0	20.0	mg CaCO3/L	1	02/10/22 16:31	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:31	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:31	SM 2320 B	
SW-109_0222 (A2B0202-42)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	35.8	20.0	20.0	mg CaCO3/L	1	02/10/22 16:37	SM 2320 B	
Bicarbonate Alkalinity	35.8	20.0	20.0	mg CaCO3/L	1	02/10/22 16:37	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:37	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:37	SM 2320 B	
SW-07_0222 (A2B0202-43)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	32.8	20.0	20.0	mg CaCO3/L	1	02/10/22 16:49	SM 2320 B	
Bicarbonate Alkalinity	32.8	20.0	20.0	mg CaCO3/L	1	02/10/22 16:49	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:49	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:49	SM 2320 B	
SW-08_0222 (A2B0202-44)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	37.3	20.0	20.0	mg CaCO3/L	1	02/10/22 16:55	SM 2320 B	
Bicarbonate Alkalinity	37.3	20.0	20.0	mg CaCO3/L	1	02/10/22 16:55	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:55	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:55	SM 2320 B	
SW-10_0222 (A2B0202-45)				Matrix: Water				

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GSI Water Solutions

55 SW Yamhill St, Ste 300

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Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-10_0222 (A2B0202-45)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	63.7	20.0	20.0	mg CaCO3/L	1	02/10/22 17:01	SM 2320 B	
Bicarbonate Alkalinity	63.7	20.0	20.0	mg CaCO3/L	1	02/10/22 17:01	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:01	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:01	SM 2320 B	
SW-11_0222 (A2B0202-46)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	36.8	20.0	20.0	mg CaCO3/L	1	02/10/22 17:12	SM 2320 B	
Bicarbonate Alkalinity	36.8	20.0	20.0	mg CaCO3/L	1	02/10/22 17:12	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:12	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:12	SM 2320 B	
SW-12_0222 (A2B0202-47)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	130	20.0	20.0	mg CaCO3/L	1	02/10/22 17:19	SM 2320 B	
Bicarbonate Alkalinity	130	20.0	20.0	mg CaCO3/L	1	02/10/22 17:19	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:19	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:19	SM 2320 B	
SW-13_0222 (A2B0202-48)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	37.5	20.0	20.0	mg CaCO3/L	1	02/10/22 17:27	SM 2320 B	
Bicarbonate Alkalinity	37.5	20.0	20.0	mg CaCO3/L	1	02/10/22 17:27	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:27	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:27	SM 2320 B	
SW-14_0222 (A2B0202-49)				Matrix: Water				
Batch: 22B0402								
Total Alkalinity	38.2	20.0	20.0	mg CaCO3/L	1	02/10/22 17:36	SM 2320 B	
Bicarbonate Alkalinity	38.2	20.0	20.0	mg CaCO3/L	1	02/10/22 17:36	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:36	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:36	SM 2320 B	

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soil		Batch: 22B0310		
% Solids	48.1	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soil		Batch: 22B0310		
% Solids	52.0	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soil		Batch: 22B0310		
% Solids	21.3	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soil		Batch: 22B0310		
% Solids	31.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soil		Batch: 22B0310		
% Solids	21.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-102-Comp-1.0-2.0_0222 (A2B0202-06)				Matrix: Soil		Batch: 22B0310		
% Solids	29.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soil		Batch: 22B0310		
% Solids	23.3	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03-Comp-1.0-2.0_0222 (A2B0202-08)				Matrix: Soil		Batch: 22B0310		
% Solids	46.3	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-04-Comp-0.0-0.5_0222 (A2B0202-09)				Matrix: Soil		Batch: 22B0310		
% Solids	15.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-04-Comp-0.5-1.0_0222 (A2B0202-10)				Matrix: Soil		Batch: 22B0310		
% Solids	33.7	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-04-Comp-1.0-2.0_0222 (A2B0202-11)				Matrix: Soil		Batch: 22B0310		
% Solids	51.9	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12)				Matrix: Soil		Batch: 22B0310		
% Solids	26.1	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soil		Batch: 22B0310		

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soil		Batch: 22B0310		
% Solids	32.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-05-Comp-1.0-2.0_0222 (A2B0202-14)				Matrix: Soil		Batch: 22B0310		
% Solids	51.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01A-0.0-0.5_0222 (A2B0202-15)				Matrix: Soil		Batch: 22B0310		
% Solids	65.6	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01B-0.0-0.5_0222 (A2B0202-16)				Matrix: Soil		Batch: 22B0310		
% Solids	24.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01C-0.0-0.5_0222 (A2B0202-17)				Matrix: Soil		Batch: 22B0310		
% Solids	11.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01D-0.0-0.5_0222 (A2B0202-18)				Matrix: Soil		Batch: 22B0310		
% Solids	26.0	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01E-0.0-0.5_0222 (A2B0202-19)				Matrix: Soil		Batch: 22B0310		
% Solids	74.0	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02A-0.0-0.5_0222 (A2B0202-20)				Matrix: Soil		Batch: 22B0310		
% Solids	27.4	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	Q-17
HA-02B-0.0-0.5_0222 (A2B0202-21)				Matrix: Soil		Batch: 22B0310		
% Solids	35.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02C-0.0-0.5_0222 (A2B0202-22)				Matrix: Soil		Batch: 22B0310		
% Solids	11.9	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02D-0.0-0.5_0222 (A2B0202-23)				Matrix: Soil		Batch: 22B0310		
% Solids	13.6	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02E-0.0-0.5_0222 (A2B0202-24)				Matrix: Soil		Batch: 22B0310		
% Solids	25.4	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03A-0.0-0.5_0222 (A2B0202-25)				Matrix: Soil		Batch: 22B0310		

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067**Project Manager: **Josh Bale**Report ID:**A2B0202 - 04 25 23 1115**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03A-0.0-0.5_0222 (A2B0202-25)				Matrix: Soil		Batch: 22B0310		
% Solids	18.6	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03B-0.0-0.5_0222 (A2B0202-26)				Matrix: Soil		Batch: 22B0310		
% Solids	29.6	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03C-0.0-0.5_0222 (A2B0202-27)				Matrix: Soil		Batch: 22B0310		
% Solids	15.1	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03D-0.0-0.5_0222 (A2B0202-28)				Matrix: Soil		Batch: 22B0310		
% Solids	13.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03E-0.0-0.5_0222 (A2B0202-29)				Matrix: Soil		Batch: 22B0310		
% Solids	12.5	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01-Comp-0.0-0.5_0222 (A2B0202-30)				Matrix: Soil		Batch: 22B0310		
% Solids	40.4	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02-Comp-0.0-0.5_0222 (A2B0202-31)				Matrix: Soil		Batch: 22B0310		
% Solids	24.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03-Comp-0.0-0.5_0222 (A2B0202-32)				Matrix: Soil		Batch: 22B0310		
% Solids	19.0	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	

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Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Hexavalent Chromium by IC

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB-02 (A2B0202-34)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.071	0.0079	0.020	ug/l	1	02/14/22 13:18	EPA 218.6	
PZ-01_0222 (A2B0202-35)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 13:30	EPA 218.6	
PZ-02_0222 (A2B0202-36)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 13:42	EPA 218.6	
PZ-102_0222 (A2B0202-37)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 13:53	EPA 218.6	
PZ-03_0222 (A2B0202-38)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 14:05	EPA 218.6	
PZ-04_0222 (A2B0202-39)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 14:17	EPA 218.6	
PZ-05_0222 (A2B0202-40)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.12	0.0079	0.020	ug/l	1	02/14/22 14:53	EPA 218.6	
SW-09_0222 (A2B0202-41)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.10	0.0079	0.020	ug/l	1	02/14/22 15:05	EPA 218.6	
SW-109_0222 (A2B0202-42)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.089	0.0079	0.020	ug/l	1	02/14/22 15:17	EPA 218.6	

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ANALYTICAL REPORT

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

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Project Manager: Josh Bale

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A2B0202 - 04 25 23 1115

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Hexavalent Chromium by IC

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.10	0.0079	0.020	ug/l	1	02/14/22 15:29	EPA 218.6	
SW-08_0222 (A2B0202-44)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.13	0.0079	0.020	ug/l	1	02/14/22 15:40	EPA 218.6	
SW-10_0222 (A2B0202-45)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.027	0.0079	0.020	ug/l	1	02/14/22 15:52	EPA 218.6	
SW-11_0222 (A2B0202-46)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.090	0.0079	0.020	ug/l	1	02/14/22 16:04	EPA 218.6	
SW-12_0222 (A2B0202-47)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.029	0.0079	0.020	ug/l	1	02/14/22 16:16	EPA 218.6	
SW-13_0222 (A2B0202-48)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.12	0.0079	0.020	ug/l	1	02/14/22 16:28	EPA 218.6	
SW-14_0222 (A2B0202-49)				Matrix: Water		Batch: W2B0946		
Batch: W2B0946								
Chromium 6+, Dissolved	0.11	0.0079	0.020	ug/l	1	02/14/22 16:39	EPA 218.6	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0380 - EPA 3546 (Fuels)						Soil						
Blank (22B0380-BLK1)			Prepared: 02/10/22 08:40 Analyzed: 02/10/22 10:22									
<u>NWTPH-Dx</u>												
Diesel	ND	9.09	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	18.2	50.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x						
LCS (22B0380-BS1)			Prepared: 02/10/22 08:40 Analyzed: 02/10/22 10:42									
<u>NWTPH-Dx</u>												
Diesel	125	10.0	25.0	mg/kg wet	1	125	---	100	38-132%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 101 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (22B0380-DUP1)			Prepared: 02/10/22 08:40 Analyzed: 02/10/22 11:23									
<u>QC Source Sample: Non-SDG (A2B0310-01RE1)</u>												
Diesel	24.7	9.44	25.0	mg/kg wet	1	---	35.2	---	---	35	30%	Q-05, Ja
Oil	ND	18.9	50.0	mg/kg wet	1	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		Recovery: 71 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (22B0380-DUP2)			Prepared: 02/10/22 13:31 Analyzed: 02/11/22 00:11									
<u>QC Source Sample: Non-SDG (A2B0319-12)</u>												
Diesel	ND	11.7	25.0	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	23.3	50.0	mg/kg dry	1	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		Recovery: 60 %		Limits: 50-150 %		Dilution: 1x						
Batch 22B0416 - EPA 3546 (Fuels)						Soil						
Blank (22B0416-BLK1)			Prepared: 02/10/22 15:22 Analyzed: 02/10/22 20:51									
<u>NWTPH-Dx</u>												
Diesel	ND	9.09	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	18.2	50.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 102 %		Limits: 50-150 %		Dilution: 1x						
LCS (22B0416-BS1)			Prepared: 02/10/22 15:22 Analyzed: 02/10/22 21:12									
<u>NWTPH-Dx</u>												
Diesel	97.3	10.0	20.0	mg/kg wet	1	125	---	78	38-132%	---	---	

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0416 - EPA 3546 (Fuels)						Soil						
LCS (22B0416-BS1)			Prepared: 02/10/22 15:22 Analyzed: 02/10/22 21:12									
Surr: o-Terphenyl (Surr)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (22B0416-DUP1)			Prepared: 02/10/22 15:22 Analyzed: 02/10/22 21:55									
QC Source Sample: HA-01-Comp-1.0-2.0 0222 (A2B0202-02)												
NWTPH-Dx												
Diesel	ND	18.8	37.6	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	37.6	75.2	mg/kg dry	1	---	49.1	---	---	***	30%	
Surr: o-Terphenyl (Surr)		Recovery: 82 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (22B0416-DUP2)			Prepared: 02/10/22 15:22 Analyzed: 02/10/22 23:21									
QC Source Sample: HA-03-Comp-0.0-0.5 0222 (A2B0202-32)												
NWTPH-Dx												
Diesel	59.1	52.1	104	mg/kg dry	1	---	ND	---	---		30%	Ja
Oil	143	104	208	mg/kg dry	1	---	113	---	---	23	30%	Ja
Surr: o-Terphenyl (Surr)		Recovery: 97 %		Limits: 50-150 %		Dilution: 1x						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 22B0427 - EPA 3510C (Fuels/Acid Ext.)						Water							
Blank (22B0427-BLK1)			Prepared: 02/11/22 07:03		Analyzed: 02/11/22 22:51								
NWTPH-Dx													
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---		
Oil	ND	0.182	0.364	mg/L	1	---	---	---	---	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 89 %		Limits: 50-150 %		Dilution: 1x							
LCS (22B0427-BS1)			Prepared: 02/11/22 07:03		Analyzed: 02/11/22 23:11								
NWTPH-Dx													
Diesel	1.13	0.100	0.200	mg/L	1	1.25	---	91	36-132%	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 91 %		Limits: 50-150 %		Dilution: 1x							
LCS Dup (22B0427-BSD1)			Prepared: 02/11/22 07:03		Analyzed: 02/11/22 23:32								Q-19
NWTPH-Dx													
Diesel	1.19	0.100	0.200	mg/L	1	1.25	---	95	36-132%	5	30%		
Surr: o-Terphenyl (Surr)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x							

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0397 - EPA 5035A						Soil						
Blank (22B0397-BLK1)			Prepared: 02/10/22 08:00 Analyzed: 02/10/22 12:54									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 116 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		106 %		50-150 %		"						
LCS (22B0397-BS2)			Prepared: 02/10/22 08:00 Analyzed: 02/10/22 12:27									
NWTPH-Gx (MS)												
Gasoline Range Organics	27.4	2.50	5.00	mg/kg wet	50	25.0	---	110	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 114 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		106 %		50-150 %		"						
Duplicate (22B0397-DUP1)			Prepared: 02/04/22 17:00 Analyzed: 02/10/22 15:09									
QC Source Sample: HA-01-Comp-0.5-1.0_0222 (A2B0202-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	8.78	17.6	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 123 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		107 %		50-150 %		"						
Duplicate (22B0397-DUP2)			Prepared: 02/04/22 17:05 Analyzed: 02/10/22 16:03									
QC Source Sample: HA-01-Comp-1.0-2.0_0222 (A2B0202-02)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	6.15	12.3	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 123 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		108 %		50-150 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0420 - EPA 5035A						Soil						
Blank (22B0420-BLK1)			Prepared: 02/10/22 09:00		Analyzed: 02/10/22 23:15							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 117 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		108 %		50-150 %		"						
LCS (22B0420-BS2)			Prepared: 02/10/22 09:00		Analyzed: 02/10/22 22:48							
NWTPH-Gx (MS)												
Gasoline Range Organics	27.8	2.50	5.00	mg/kg wet	50	25.0	---	111	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 113 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		108 %		50-150 %		"						
Duplicate (22B0420-DUP1)			Prepared: 02/01/22 16:30		Analyzed: 02/11/22 00:08							
QC Source Sample: HA-04-Comp-0.0-0.5 0222 (A2B0202-09)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	35.9	71.9	mg/kg dry	50	---	95.0	---	---	***	30%	Q-05
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 127 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		108 %		50-150 %		"						

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Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Blank (22B0469-BLK1)			Prepared: 02/12/22 09:00 Analyzed: 02/12/22 11:01									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Surr)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Surr)		100 %		50-150 %		"						
LCS (22B0469-BS2)			Prepared: 02/12/22 09:00 Analyzed: 02/12/22 10:35									
NWTPH-Gx (MS)												
Gasoline Range Organics	0.504	0.0500	0.100	mg/L	1	0.500	---	101	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Surr)		Recovery: 96 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Surr)		96 %		50-150 %		"						
Duplicate (22B0469-DUP1)			Prepared: 02/12/22 09:59 Analyzed: 02/12/22 12:21									
QC Source Sample: PZ-01_0222 (A2B0202-35)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Surr)		Recovery: 94 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Surr)		103 %		50-150 %		"						
Duplicate (22B0469-DUP2)			Prepared: 02/12/22 09:59 Analyzed: 02/12/22 17:38									
QC Source Sample: SW-11_0222 (A2B0202-46)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Surr)		Recovery: 103 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Surr)		110 %		50-150 %		"						

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Blank (22B0469-BLK1)			Prepared: 02/12/22 09:00		Analyzed: 02/12/22 11:01							
EPA 8260D												
Acetone	ND	20.0	20.0	ug/L	1	---	---	---	---	---	---	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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AMENDED REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Blank (22B0469-BLK1)						Prepared: 02/12/22 09:00 Analyzed: 02/12/22 11:01						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 104 % Limits: 80-120 % Dilution: 1x												

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Blank (22B0469-BLK1)				Prepared: 02/12/22 09:00		Analyzed: 02/12/22 11:01						
Surr: Toluene-d8 (Surr)		Recovery: 98 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		106 %		80-120 %		"						
LCS (22B0469-BS1)				Prepared: 02/12/22 09:00		Analyzed: 02/12/22 10:06						
EPA 8260D												
Acetone	33.3	20.0	20.0	ug/L	1	40.0	---	83	80-120%	---	---	ICV-02
Acrylonitrile	18.5	1.00	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
Benzene	19.4	0.100	0.200	ug/L	1	20.0	---	97	80-120%	---	---	
Bromobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Bromochloromethane	18.9	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Bromodichloromethane	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromoform	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromomethane	18.9	5.00	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
2-Butanone (MEK)	34.8	5.00	10.0	ug/L	1	40.0	---	87	80-120%	---	---	
n-Butylbenzene	18.9	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
sec-Butylbenzene	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
tert-Butylbenzene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Carbon disulfide	18.7	5.00	10.0	ug/L	1	20.0	---	94	80-120%	---	---	
Carbon tetrachloride	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chlorobenzene	18.2	0.250	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Chloroethane	16.8	5.00	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
Chloroform	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chloromethane	18.4	2.50	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Chlorotoluene	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
4-Chlorotoluene	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromochloromethane	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.0	2.50	5.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromomethane	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichlorobenzene	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichlorobenzene	19.7	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,4-Dichlorobenzene	18.2	0.250	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Dichlorodifluoromethane	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethane	18.3	0.200	0.400	ug/L	1	20.0	---	92	80-120%	---	---	

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Project Manager: Josh Bale

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
LCS (22B0469-BS1)			Prepared: 02/12/22 09:00		Analyzed: 02/12/22 10:06							
1,2-Dichloroethane (EDC)	17.6	0.200	0.400	ug/L	1	20.0	---	88	80-120%	---	---	
1,1-Dichloroethene	18.0	0.200	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
cis-1,2-Dichloroethene	19.9	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
trans-1,2-Dichloroethene	19.3	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichloropropane	19.8	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichloropropane	19.1	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
2,2-Dichloropropane	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1-Dichloropropene	20.1	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
cis-1,3-Dichloropropene	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
trans-1,3-Dichloropropene	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Ethylbenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Hexachlorobutadiene	18.4	2.50	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Hexanone	33.8	5.00	10.0	ug/L	1	40.0	---	84	80-120%	---	---	
Isopropylbenzene	18.7	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
4-Isopropyltoluene	19.9	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Methylene chloride	18.8	5.00	10.0	ug/L	1	20.0	---	94	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	36.4	5.00	10.0	ug/L	1	40.0	---	91	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	21.4	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Naphthalene	19.6	1.00	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
n-Propylbenzene	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Styrene	18.5	0.500	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,1,1,2-Tetrachloroethane	18.7	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.3	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Tetrachloroethene (PCE)	19.4	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
Toluene	17.9	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,3-Trichlorobenzene	21.4	1.00	2.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,4-Trichlorobenzene	21.8	1.00	2.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,1-Trichloroethane	18.6	0.200	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,1,2-Trichloroethane	18.9	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Trichloroethene (TCE)	18.8	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
Trichlorofluoromethane	18.0	1.00	2.00	ug/L	1	20.0	---	90	80-120%	---	---	
1,2,3-Trichloropropane	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,4-Trimethylbenzene	19.7	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,3,5-Trimethylbenzene	19.5	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
LCS (22B0469-BS1)				Prepared: 02/12/22 09:00		Analyzed: 02/12/22 10:06						
Vinyl chloride	20.8	0.200	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
m,p-Xylene	37.3	0.500	1.00	ug/L	1	40.0	---	93	80-120%	---	---	
o-Xylene	18.9	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		104 %		80-120 %		"						
Duplicate (22B0469-DUP1)						Prepared: 02/12/22 09:59		Analyzed: 02/12/22 12:21				
QC Source Sample: PZ-01_0222 (A2B0202-35)												
EPA 8260D												
Acetone	ND	20.0	20.0	ug/L	1	---	ND	---	---	---	30%	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



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AMENDED REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Duplicate (22B0469-DUP1)			Prepared: 02/12/22 09:59		Analyzed: 02/12/22 12:21							
QC Source Sample: PZ-01 0222 (A2B0202-35)												
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Duplicate (22B0469-DUP1)			Prepared: 02/12/22 09:59 Analyzed: 02/12/22 12:21									
QC Source Sample: PZ-01 0222 (A2B0202-35)												
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		107 %		80-120 %		"						
Duplicate (22B0469-DUP2)			Prepared: 02/12/22 09:59 Analyzed: 02/12/22 17:38									
QC Source Sample: SW-11 0222 (A2B0202-46)												
EPA 8260D												
Acetone	ND	20.0	20.0	ug/L	1	---	ND	---	---	---	30%	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Duplicate (22B0469-DUP2)			Prepared: 02/12/22 09:59		Analyzed: 02/12/22 17:38							
QC Source Sample: SW-11 0222 (A2B0202-46)												
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Duplicate (22B0469-DUP2)			Prepared: 02/12/22 09:59		Analyzed: 02/12/22 17:38							
QC Source Sample: SW-11 0222 (A2B0202-46)												
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 106 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"						

Matrix Spike (22B0469-MS1)

Prepared: 02/12/22 09:59 Analyzed: 02/12/22 18:58

QC Source Sample: SW-13 0222 (A2B0202-48)

EPA 8260D

Acetone	31.1	20.0	20.0	ug/L	1	40.0	ND	78	39-160%	---	---	ICV-02
Acrylonitrile	20.9	1.00	2.00	ug/L	1	20.0	ND	104	63-135%	---	---	
Benzene	21.3	0.100	0.200	ug/L	1	20.0	ND	106	79-120%	---	---	
Bromobenzene	16.9	0.250	0.500	ug/L	1	20.0	ND	84	80-120%	---	---	
Bromochloromethane	22.9	0.500	1.00	ug/L	1	20.0	ND	114	78-123%	---	---	
Bromodichloromethane	22.2	0.500	1.00	ug/L	1	20.0	ND	111	79-125%	---	---	
Bromoform	20.4	0.500	1.00	ug/L	1	20.0	ND	102	66-130%	---	---	
Bromomethane	22.2	5.00	5.00	ug/L	1	20.0	ND	111	53-141%	---	---	
2-Butanone (MEK)	34.1	5.00	10.0	ug/L	1	40.0	ND	85	56-143%	---	---	
n-Butylbenzene	19.4	0.500	1.00	ug/L	1	20.0	ND	97	75-128%	---	---	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Matrix Spike (22B0469-MS1)			Prepared: 02/12/22 09:59		Analyzed: 02/12/22 18:58							
QC Source Sample: SW-13 0222 (A2B0202-48)												
sec-Butylbenzene	19.2	0.500	1.00	ug/L	1	20.0	ND	96	77-126%	---	---	
tert-Butylbenzene	19.0	0.500	1.00	ug/L	1	20.0	ND	95	78-124%	---	---	
Carbon disulfide	21.6	5.00	10.0	ug/L	1	20.0	ND	108	64-133%	---	---	
Carbon tetrachloride	22.6	0.500	1.00	ug/L	1	20.0	ND	113	72-136%	---	---	
Chlorobenzene	19.1	0.250	0.500	ug/L	1	20.0	ND	96	80-120%	---	---	
Chloroethane	22.6	5.00	5.00	ug/L	1	20.0	ND	113	60-138%	---	---	
Chloroform	22.2	0.500	1.00	ug/L	1	20.0	ND	111	79-124%	---	---	
Chloromethane	17.8	2.50	5.00	ug/L	1	20.0	ND	89	50-139%	---	---	
2-Chlorotoluene	19.6	0.500	1.00	ug/L	1	20.0	ND	98	79-122%	---	---	
4-Chlorotoluene	20.0	0.500	1.00	ug/L	1	20.0	ND	100	78-122%	---	---	
Dibromochloromethane	20.1	0.500	1.00	ug/L	1	20.0	ND	100	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.6	2.50	5.00	ug/L	1	20.0	ND	88	62-128%	---	---	
1,2-Dibromoethane (EDB)	19.5	0.250	0.500	ug/L	1	20.0	ND	97	77-121%	---	---	
Dibromomethane	21.8	0.500	1.00	ug/L	1	20.0	ND	109	79-123%	---	---	
1,2-Dichlorobenzene	18.3	0.250	0.500	ug/L	1	20.0	ND	91	80-120%	---	---	
1,3-Dichlorobenzene	18.6	0.250	0.500	ug/L	1	20.0	ND	93	80-120%	---	---	
1,4-Dichlorobenzene	17.5	0.250	0.500	ug/L	1	20.0	ND	88	79-120%	---	---	
Dichlorodifluoromethane	16.8	0.500	1.00	ug/L	1	20.0	ND	84	32-152%	---	---	
1,1-Dichloroethane	21.8	0.200	0.400	ug/L	1	20.0	ND	109	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.2	0.200	0.400	ug/L	1	20.0	ND	106	73-128%	---	---	
1,1-Dichloroethene	21.8	0.200	0.400	ug/L	1	20.0	ND	109	71-131%	---	---	
cis-1,2-Dichloroethene	21.5	0.200	0.400	ug/L	1	20.0	ND	107	78-123%	---	---	
trans-1,2-Dichloroethene	21.5	0.200	0.400	ug/L	1	20.0	ND	108	75-124%	---	---	
1,2-Dichloropropane	22.2	0.250	0.500	ug/L	1	20.0	ND	111	78-122%	---	---	
1,3-Dichloropropane	19.9	0.500	1.00	ug/L	1	20.0	ND	99	80-120%	---	---	
2,2-Dichloropropane	20.1	0.500	1.00	ug/L	1	20.0	ND	101	60-139%	---	---	
1,1-Dichloropropene	22.2	0.500	1.00	ug/L	1	20.0	ND	111	79-125%	---	---	
cis-1,3-Dichloropropene	18.2	0.500	1.00	ug/L	1	20.0	ND	91	75-124%	---	---	
trans-1,3-Dichloropropene	21.9	0.500	1.00	ug/L	1	20.0	ND	110	73-127%	---	---	
Ethylbenzene	21.1	0.250	0.500	ug/L	1	20.0	ND	106	79-121%	---	---	
Hexachlorobutadiene	18.0	2.50	5.00	ug/L	1	20.0	ND	90	66-134%	---	---	
2-Hexanone	32.4	5.00	10.0	ug/L	1	40.0	ND	81	57-139%	---	---	
Isopropylbenzene	19.6	0.500	1.00	ug/L	1	20.0	ND	98	72-131%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C						Water						
Matrix Spike (22B0469-MS1)			Prepared: 02/12/22 09:59		Analyzed: 02/12/22 18:58							
QC Source Sample: SW-13 0222 (A2B0202-48)												
4-Isopropyltoluene	18.9	0.500	1.00	ug/L	1	20.0	ND	95	77-127%	---	---	
Methylene chloride	20.7	5.00	10.0	ug/L	1	20.0	ND	104	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	41.6	5.00	10.0	ug/L	1	40.0	ND	104	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	21.8	0.500	1.00	ug/L	1	20.0	ND	109	71-124%	---	---	
Naphthalene	16.6	1.00	2.00	ug/L	1	20.0	ND	83	61-128%	---	---	
n-Propylbenzene	19.9	0.250	0.500	ug/L	1	20.0	ND	100	76-126%	---	---	
Styrene	19.4	0.500	1.00	ug/L	1	20.0	ND	97	78-123%	---	---	
1,1,1,2-Tetrachloroethane	20.2	0.200	0.400	ug/L	1	20.0	ND	101	78-124%	---	---	
1,1,2,2-Tetrachloroethane	19.8	0.250	0.500	ug/L	1	20.0	ND	99	71-121%	---	---	
Tetrachloroethene (PCE)	20.1	0.200	0.400	ug/L	1	20.0	ND	101	74-129%	---	---	
Toluene	19.1	0.500	1.00	ug/L	1	20.0	ND	95	80-121%	---	---	
1,2,3-Trichlorobenzene	18.1	1.00	2.00	ug/L	1	20.0	ND	90	69-129%	---	---	
1,2,4-Trichlorobenzene	18.4	1.00	2.00	ug/L	1	20.0	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	22.1	0.200	0.400	ug/L	1	20.0	ND	110	74-131%	---	---	
1,1,2-Trichloroethane	19.9	0.250	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
Trichloroethene (TCE)	19.2	0.200	0.400	ug/L	1	20.0	ND	96	79-123%	---	---	
Trichlorofluoromethane	23.5	1.00	2.00	ug/L	1	20.0	ND	117	65-141%	---	---	
1,2,3-Trichloropropane	18.4	0.500	1.00	ug/L	1	20.0	ND	92	73-122%	---	---	
1,2,4-Trimethylbenzene	18.9	0.500	1.00	ug/L	1	20.0	ND	95	76-124%	---	---	
1,3,5-Trimethylbenzene	19.1	0.500	1.00	ug/L	1	20.0	ND	96	75-124%	---	---	
Vinyl chloride	19.9	0.200	0.400	ug/L	1	20.0	ND	99	58-137%	---	---	
m,p-Xylene	41.1	0.500	1.00	ug/L	1	40.0	ND	103	80-121%	---	---	
o-Xylene	19.2	0.250	0.500	ug/L	1	20.0	ND	96	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		95 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		91 %		80-120 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0338 - EPA 3511 (Bottle Extraction)						Water						
Blank (22B0338-BLK1)			Prepared: 02/09/22 07:46 Analyzed: 02/09/22 11:20									
EPA 8270E LVI												
Acenaphthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 97 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		96 %		80-132 %		"						

LCS (22B0338-BS1)

Prepared: 02/09/22 07:46 Analyzed: 02/09/22 11:52

EPA 8270E LV1												
Acenaphthene	1.49	0.0160	0.0320	ug/L	1	1.60	---	93	80-120%	---	---	
Acenaphthylene	1.89	0.0160	0.0320	ug/L	1	1.60	---	118	80-124%	---	---	
Anthracene	1.47	0.0160	0.0320	ug/L	1	1.60	---	92	80-123%	---	---	
Benz(a)anthracene	1.51	0.00800	0.0160	ug/L	1	1.60	---	95	80-122%	---	---	
Benzo(a)pyrene	1.64	0.00800	0.0160	ug/L	1	1.60	---	102	80-129%	---	---	
Benzo(b)fluoranthene	1.54	0.00800	0.0160	ug/L	1	1.60	---	96	80-124%	---	---	
Benzo(k)fluoranthene	1.54	0.00800	0.0160	ug/L	1	1.60	---	96	80-125%	---	---	
Benzo(g,h,i)perylene	1.48	0.0160	0.0320	ug/L	1	1.60	---	93	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0338 - EPA 3511 (Bottle Extraction)						Water						
LCS (22B0338-BS1)						Prepared: 02/09/22 07:46 Analyzed: 02/09/22 11:52						
Chrysene	1.52	0.00800	0.0160	ug/L	1	1.60	---	95	80-120%	---	---	
Dibenz(a,h)anthracene	1.65	0.00800	0.0160	ug/L	1	1.60	---	103	80-120%	---	---	
Fluoranthene	1.66	0.0160	0.0320	ug/L	1	1.60	---	104	80-126%	---	---	
Fluorene	1.57	0.0160	0.0320	ug/L	1	1.60	---	98	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	1.52	0.00800	0.0160	ug/L	1	1.60	---	95	80-121%	---	---	
1-Methylnaphthalene	1.71	0.0320	0.0640	ug/L	1	1.60	---	107	53-148%	---	---	
2-Methylnaphthalene	1.61	0.0320	0.0640	ug/L	1	1.60	---	100	48-150%	---	---	
Naphthalene	1.64	0.0320	0.0640	ug/L	1	1.60	---	103	78-120%	---	---	
Phenanthrene	1.51	0.0320	0.0640	ug/L	1	1.60	---	94	80-120%	---	---	
Pyrene	1.65	0.0160	0.0320	ug/L	1	1.60	---	103	80-125%	---	---	
Carbazole	1.48	0.0160	0.0320	ug/L	1	1.60	---	93	65-141%	---	---	
Dibenzofuran	1.78	0.0160	0.0320	ug/L	1	1.60	---	112	76-121%	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 97 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		100 %		80-132 %		"						

LCS Dup (22B0338-BS1)				Prepared: 02/09/22 07:46 Analyzed: 02/09/22 12:25								Q-19
EPA 8270E LVI												
Acenaphthene	1.43	0.0160	0.0320	ug/L	1	1.60	---	90	80-120%	4	30%	
Acenaphthylene	1.85	0.0160	0.0320	ug/L	1	1.60	---	116	80-124%	2	30%	
Anthracene	1.51	0.0160	0.0320	ug/L	1	1.60	---	95	80-123%	3	30%	
Benz(a)anthracene	1.57	0.00800	0.0160	ug/L	1	1.60	---	98	80-122%	4	30%	
Benzo(a)pyrene	1.69	0.00800	0.0160	ug/L	1	1.60	---	105	80-129%	3	30%	
Benzo(b)fluoranthene	1.56	0.00800	0.0160	ug/L	1	1.60	---	98	80-124%	1	30%	
Benzo(k)fluoranthene	1.58	0.00800	0.0160	ug/L	1	1.60	---	99	80-125%	3	30%	
Benzo(g,h,i)perylene	1.48	0.0160	0.0320	ug/L	1	1.60	---	93	80-120%	0.05	30%	
Chrysene	1.51	0.00800	0.0160	ug/L	1	1.60	---	94	80-120%	1	30%	
Dibenz(a,h)anthracene	1.68	0.00800	0.0160	ug/L	1	1.60	---	105	80-120%	2	30%	
Fluoranthene	1.72	0.0160	0.0320	ug/L	1	1.60	---	108	80-126%	3	30%	
Fluorene	1.56	0.0160	0.0320	ug/L	1	1.60	---	97	77-127%	0.9	30%	
Indeno(1,2,3-cd)pyrene	1.50	0.00800	0.0160	ug/L	1	1.60	---	94	80-121%	1	30%	
1-Methylnaphthalene	1.65	0.0320	0.0640	ug/L	1	1.60	---	103	53-148%	4	30%	
2-Methylnaphthalene	1.53	0.0320	0.0640	ug/L	1	1.60	---	95	48-150%	5	30%	
Naphthalene	1.53	0.0320	0.0640	ug/L	1	1.60	---	96	78-120%	7	30%	
Phenanthrene	1.52	0.0320	0.0640	ug/L	1	1.60	---	95	80-120%	0.6	30%	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0338 - EPA 3511 (Bottle Extraction)						Water						
LCS Dup (22B0338-BSD1)			Prepared: 02/09/22 07:46 Analyzed: 02/09/22 12:25								Q-19	
Pyrene	1.70	0.0160	0.0320	ug/L	1	1.60	---	106	80-125%	3	30%	
Carbazole	1.56	0.0160	0.0320	ug/L	1	1.60	---	97	65-141%	5	30%	
Dibenzofuran	1.73	0.0160	0.0320	ug/L	1	1.60	---	108	76-121%	3	30%	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 96 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		100 %		80-132 %		"						

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Pentachlorophenol by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 22B0333 - EPA 3510C (Acid Extraction)						Water							
Blank (22B0333-BLK2)			Prepared: 02/09/22 07:07 Analyzed: 02/09/22 13:21										
EPA 8270E													
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---		
Surr: 2,4,6-Tribromophenol (Surr)		Recovery: 76 %		Limits: 43-140 %		Dilution: 1x							
LCS (22B0333-BS2)			Prepared: 02/09/22 07:07 Analyzed: 02/09/22 13:56										
EPA 8270E													
Pentachlorophenol (PCP)	3.45	0.100	0.200	ug/L	1	4.00	---	86	62-130%	---	---		
Surr: 2,4,6-Tribromophenol (Surr)		Recovery: 84 %		Limits: 43-140 %		Dilution: 1x							
LCS Dup (22B0333-BSD2)			Prepared: 02/09/22 07:07 Analyzed: 02/09/22 14:31										Q-19
EPA 8270E													
Pentachlorophenol (PCP)	2.90	0.100	0.200	ug/L	1	4.00	---	73	62-130%	17	30%		
Surr: 2,4,6-Tribromophenol (Surr)		Recovery: 83 %		Limits: 43-140 %		Dilution: 1x							

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0382 - EPA 3051A						Soil						
Blank (22B0382-BLK1)			Prepared: 02/10/22 09:03		Analyzed: 02/10/22 17:18							
EPA 6020B												
Arsenic	ND	0.484	0.967	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	0.484	0.967	mg/kg wet	10	---	---	---	---	---	---	
Beryllium	ND	0.0967	0.193	mg/kg wet	10	---	---	---	---	---	---	
Cadmium	ND	0.0967	0.193	mg/kg wet	10	---	---	---	---	---	---	
Chromium	ND	0.484	0.967	mg/kg wet	10	---	---	---	---	---	---	
Cobalt	ND	0.484	0.967	mg/kg wet	10	---	---	---	---	---	---	
Copper	ND	0.967	1.93	mg/kg wet	10	---	---	---	---	---	---	
Lead	ND	0.0967	0.193	mg/kg wet	10	---	---	---	---	---	---	
Nickel	ND	0.967	1.93	mg/kg wet	10	---	---	---	---	---	---	
Selenium	ND	0.484	0.967	mg/kg wet	10	---	---	---	---	---	---	
Thallium	ND	0.0967	0.193	mg/kg wet	10	---	---	---	---	---	---	
Vanadium	ND	0.967	1.93	mg/kg wet	10	---	---	---	---	---	---	
Zinc	ND	1.93	3.87	mg/kg wet	10	---	---	---	---	---	---	

LCS (22B0382-BS1)

Prepared: 02/10/22 09:03 Analyzed: 02/10/22 17:23

EPA 6020B												
Arsenic	48.1	0.500	1.00	mg/kg wet	10	50.0	---	96	80-120%	---	---	
Barium	50.8	0.500	1.00	mg/kg wet	10	50.0	---	102	80-120%	---	---	
Beryllium	24.5	0.100	0.200	mg/kg wet	10	25.0	---	98	80-120%	---	---	
Cadmium	48.9	0.100	0.200	mg/kg wet	10	50.0	---	98	80-120%	---	---	
Chromium	49.6	0.500	1.00	mg/kg wet	10	50.0	---	99	80-120%	---	---	
Cobalt	50.0	0.500	1.00	mg/kg wet	10	50.0	---	100	80-120%	---	---	
Copper	52.6	1.00	2.00	mg/kg wet	10	50.0	---	105	80-120%	---	---	
Lead	49.4	0.100	0.200	mg/kg wet	10	50.0	---	99	80-120%	---	---	
Nickel	51.4	1.00	2.00	mg/kg wet	10	50.0	---	103	80-120%	---	---	
Selenium	23.8	0.500	1.00	mg/kg wet	10	25.0	---	95	80-120%	---	---	
Thallium	23.2	0.100	0.200	mg/kg wet	10	25.0	---	93	80-120%	---	---	
Vanadium	49.4	1.00	2.00	mg/kg wet	10	50.0	---	99	80-120%	---	---	
Zinc	50.6	2.00	4.00	mg/kg wet	10	50.0	---	101	80-120%	---	---	

Duplicate (22B0382-DUP1)

Prepared: 02/10/22 09:03 Analyzed: 02/10/22 17:32

QC Source Sample: Non-SDG (A2B0162-09)

Arsenic	1.31	0.632	1.26	mg/kg dry	10	---	1.27	---	---	3	20%	
---------	------	-------	------	-----------	----	-----	------	-----	-----	---	-----	--

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0382 - EPA 3051A						Soil						
Duplicate (22B0382-DUP1)			Prepared: 02/10/22 09:03		Analyzed: 02/10/22 17:32							
QC Source Sample: Non-SDG (A2B0162-09)												
Barium	34.0	0.632	1.26	mg/kg dry	10	---	33.4	---	---	2	20%	
Beryllium	ND	0.126	0.253	mg/kg dry	10	---	ND	---	---	---	20%	
Cadmium	ND	0.126	0.253	mg/kg dry	10	---	ND	---	---	---	20%	
Chromium	4.85	0.632	1.26	mg/kg dry	10	---	5.54	---	---	13	20%	
Cobalt	3.59	0.632	1.26	mg/kg dry	10	---	3.45	---	---	4	20%	
Copper	5.64	1.26	2.53	mg/kg dry	10	---	4.94	---	---	13	20%	
Lead	1.91	0.126	0.253	mg/kg dry	10	---	1.87	---	---	2	20%	
Nickel	7.10	1.26	2.53	mg/kg dry	10	---	7.31	---	---	3	20%	
Selenium	ND	0.632	1.26	mg/kg dry	10	---	ND	---	---	---	20%	
Thallium	ND	0.126	0.253	mg/kg dry	10	---	ND	---	---	---	20%	
Vanadium	16.6	1.26	2.53	mg/kg dry	10	---	16.5	---	---	0.06	20%	
Zinc	24.3	2.53	5.06	mg/kg dry	10	---	21.7	---	---	11	20%	

Matrix Spike (22B0382-MS1)

Prepared: 02/10/22 09:03 Analyzed: 02/10/22 17:42

QC Source Sample: Non-SDG (A2B0162-10)

EPA 6020B

Arsenic	64.6	0.667	1.33	mg/kg dry	10	66.7	0.894	96	75-125%	---	---	
Barium	110	0.667	1.33	mg/kg dry	10	66.7	51.0	89	75-125%	---	---	
Beryllium	33.8	0.133	0.267	mg/kg dry	10	33.3	0.133	101	75-125%	---	---	
Cadmium	64.9	0.133	0.267	mg/kg dry	10	66.7	ND	97	75-125%	---	---	
Chromium	72.3	0.667	1.33	mg/kg dry	10	66.7	6.24	99	75-125%	---	---	
Cobalt	69.2	0.667	1.33	mg/kg dry	10	66.7	3.81	98	75-125%	---	---	
Copper	74.6	1.33	2.67	mg/kg dry	10	66.7	5.06	104	75-125%	---	---	
Lead	67.8	0.133	0.267	mg/kg dry	10	66.7	1.84	99	75-125%	---	---	
Nickel	76.7	1.33	2.67	mg/kg dry	10	66.7	7.55	104	75-125%	---	---	
Selenium	31.6	0.667	1.33	mg/kg dry	10	33.3	ND	95	75-125%	---	---	
Thallium	31.1	0.133	0.267	mg/kg dry	10	33.3	ND	93	75-125%	---	---	
Vanadium	85.4	1.33	2.67	mg/kg dry	10	66.7	20.6	97	75-125%	---	---	
Zinc	91.7	2.67	5.33	mg/kg dry	10	66.7	23.4	102	75-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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AMENDED REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0387 - EPA 3015A						Water						
Blank (22B0387-BLK1)			Prepared: 02/10/22 09:07 Analyzed: 02/14/22 16:11									
EPA 6020B												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Blank (22B0387-BLK2)			Prepared: 02/10/22 09:07 Analyzed: 02/16/22 15:25									
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
LCS (22B0387-BS1)			Prepared: 02/10/22 09:07 Analyzed: 02/14/22 16:25									
EPA 6020B												
Arsenic	51.7	0.500	1.00	ug/L	1	55.6	---	93	80-120%	---	---	
Beryllium	25.6	0.500	1.00	ug/L	1	27.8	---	92	80-120%	---	---	
Cadmium	52.5	0.500	1.00	ug/L	1	55.6	---	94	80-120%	---	---	
Iron	2760	25.0	50.0	ug/L	1	2780	---	99	80-120%	---	---	
Duplicate (22B0387-DUP1)			Prepared: 02/10/22 09:07 Analyzed: 02/14/22 16:36									
QC Source Sample: Non-SDG (A2B0158-07)												
Arsenic	1.42	0.500	1.00	ug/L	1	---	1.56	---	---	9	20%	
Beryllium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Cadmium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Iron	1360	25.0	50.0	ug/L	1	---	1550	---	---	13	20%	
Matrix Spike (22B0387-MS1)			Prepared: 02/10/22 09:07 Analyzed: 02/14/22 16:41									
QC Source Sample: Non-SDG (A2B0158-07)												
EPA 6020B												
Arsenic	52.4	0.500	1.00	ug/L	1	55.6	1.56	92	75-125%	---	---	
Beryllium	26.0	0.500	1.00	ug/L	1	27.8	ND	94	75-125%	---	---	
Cadmium	52.7	0.500	1.00	ug/L	1	55.6	ND	95	75-125%	---	---	
Iron	4360	25.0	50.0	ug/L	1	2780	1550	101	75-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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503-718-2323

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0432 - EPA 3051A						Soil						
Blank (22B0432-BLK1)			Prepared: 02/11/22 09:03		Analyzed: 02/14/22 14:28							
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Chromium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Cobalt	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Copper	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Nickel	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Selenium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Thallium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Vanadium	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	
Blank (22B0432-BLK2)			Prepared: 02/11/22 09:03		Analyzed: 02/16/22 15:21							
EPA 6020B												
Beryllium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	Q-16
Cadmium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	Q-16
LCS (22B0432-BS1)			Prepared: 02/11/22 09:03		Analyzed: 02/14/22 14:33							
EPA 6020B												
Arsenic	47.8	0.500	1.00	mg/kg wet	10	50.0	---	96	80-120%	---	---	
Barium	49.5	0.500	1.00	mg/kg wet	10	50.0	---	99	80-120%	---	---	
Beryllium	23.5	0.500	1.00	mg/kg wet	10	25.0	---	94	80-120%	---	---	
Cadmium	48.3	0.500	1.00	mg/kg wet	10	50.0	---	97	80-120%	---	---	
Chromium	48.6	0.500	1.00	mg/kg wet	10	50.0	---	97	80-120%	---	---	
Cobalt	48.4	0.500	1.00	mg/kg wet	10	50.0	---	97	80-120%	---	---	
Copper	51.1	1.00	2.00	mg/kg wet	10	50.0	---	102	80-120%	---	---	
Lead	48.9	0.100	0.200	mg/kg wet	10	50.0	---	98	80-120%	---	---	
Nickel	50.8	1.00	2.00	mg/kg wet	10	50.0	---	102	80-120%	---	---	
Selenium	24.2	0.500	1.00	mg/kg wet	10	25.0	---	97	80-120%	---	---	B-02
Thallium	23.3	0.100	0.200	mg/kg wet	10	25.0	---	93	80-120%	---	---	
Vanadium	47.7	1.00	2.00	mg/kg wet	10	50.0	---	95	80-120%	---	---	
Zinc	51.0	2.00	4.00	mg/kg wet	10	50.0	---	102	80-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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AMENDED REPORT

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0432 - EPA 3051A						Soil						
Duplicate (22B0432-DUP1)			Prepared: 02/11/22 09:03		Analyzed: 02/14/22 14:42							
QC Source Sample: HA-05-Comp-0.0-0.5 0222 (A2B0202-12)												
EPA 6020B												
Arsenic	2.43	1.99	3.99	mg/kg dry	10	---	2.82	---	---	15	20%	Ja
Barium	49.2	1.99	3.99	mg/kg dry	10	---	46.9	---	---	5	20%	
Chromium	12.9	1.99	3.99	mg/kg dry	10	---	11.6	---	---	11	20%	
Cobalt	2.39	1.99	3.99	mg/kg dry	10	---	2.11	---	---	12	20%	Ja
Copper	17.4	3.99	7.98	mg/kg dry	10	---	16.0	---	---	9	20%	
Lead	122	0.399	0.798	mg/kg dry	10	---	118	---	---	4	20%	
Nickel	9.11	3.99	7.98	mg/kg dry	10	---	7.38	---	---	21	20%	Q-05
Selenium	ND	1.99	3.99	mg/kg dry	10	---	ND	---	---	---	20%	
Thallium	ND	0.399	0.798	mg/kg dry	10	---	ND	---	---	---	20%	
Vanadium	28.4	3.99	7.98	mg/kg dry	10	---	25.4	---	---	11	20%	
Zinc	79.6	7.98	16.0	mg/kg dry	10	---	88.7	---	---	11	20%	

Duplicate (22B0432-DUP2)				Prepared: 02/11/22 09:03 Analyzed: 02/16/22 15:54								
QC Source Sample: HA-05-Comp-0.0-0.5 0222 (A2B0202-12RE1)												
EPA 6020B												
Beryllium	ND	0.399	0.798	mg/kg dry	10	---	ND	---	---	---	20%	Q-16
Cadmium	ND	0.399	0.798	mg/kg dry	10	---	ND	---	---	---	20%	Q-16

Matrix Spike (22B0432-MS1)					Prepared: 02/11/22 09:03 Analyzed: 02/14/22 14:47							
<u>QC Source Sample: HA-05-Comp-0.0-0.5 0222 (A2B0202-12)</u>												
<u>EPA 6020B</u>												
Arsenic	201	1.85	3.70	mg/kg dry	10	185	2.82	107	75-125%	---	---	B-02
Barium	262	1.85	3.70	mg/kg dry	10	185	46.9	116	75-125%	---	---	
Chromium	214	1.85	3.70	mg/kg dry	10	185	11.6	109	75-125%	---	---	
Cobalt	203	1.85	3.70	mg/kg dry	10	185	2.11	108	75-125%	---	---	
Copper	229	3.70	7.41	mg/kg dry	10	185	16.0	115	75-125%	---	---	
Lead	327	0.370	0.741	mg/kg dry	10	185	118	113	75-125%	---	---	
Nickel	216	3.70	7.41	mg/kg dry	10	185	7.38	112	75-125%	---	---	
Selenium	104	1.85	3.70	mg/kg dry	10	92.6	ND	113	75-125%	---	---	
Thallium	95.3	0.370	0.741	mg/kg dry	10	92.6	ND	103	75-125%	---	---	
Vanadium	228	3.70	7.41	mg/kg dry	10	185	25.4	109	75-125%	---	---	

Apex Laboratories

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Philip Nerenberg, Lab Director



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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067**Project Manager: **Josh Bale**Report ID:**A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0432 - EPA 3051A						Soil						
Matrix Spike (22B0432-MS1)			Prepared: 02/11/22 09:03 Analyzed: 02/14/22 14:47									
QC Source Sample: HA-05-Comp-0.0-0.5 0222 (A2B0202-12)												
Zinc	303	7.41	14.8	mg/kg dry	10	185	88.7	116	75-125%	---	---	
Matrix Spike (22B0432-MS2)			Prepared: 02/11/22 09:03 Analyzed: 02/16/22 15:59									
QC Source Sample: HA-05-Comp-0.0-0.5 0222 (A2B0202-12RE1)												
EPA 6020B												
Beryllium	89.1	0.370	0.741	mg/kg dry	10	92.6	ND	96	75-125%	---	---	Q-16
Cadmium	165	0.370	0.741	mg/kg dry	10	185	0.393	89	75-125%	---	---	Q-16

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Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0435 - EPA 3015A						Water						
Blank (22B0435-BLK1)			Prepared: 02/11/22 09:34 Analyzed: 02/14/22 21:37									
EPA 6020B												
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Blank (22B0435-BLK2)			Prepared: 02/11/22 09:34 Analyzed: 02/16/22 15:30									
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
LCS (22B0435-BS1)			Prepared: 02/11/22 09:34 Analyzed: 02/14/22 21:41									
EPA 6020B												
Beryllium	25.7	0.500	1.00	ug/L	1	27.8	---	92	80-120%	---	---	
Cadmium	52.2	0.500	1.00	ug/L	1	55.6	---	94	80-120%	---	---	
Iron	2690	25.0	50.0	ug/L	1	2780	---	97	80-120%	---	---	
Duplicate (22B0435-DUP1)			Prepared: 02/11/22 09:34 Analyzed: 02/14/22 22:58									
QC Source Sample: Non-SDG (A2B0224-02)												
Beryllium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Cadmium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Iron	5490	25.0	50.0	ug/L	1	---	5230	---	---	5	20%	
Matrix Spike (22B0435-MS1)			Prepared: 02/11/22 09:34 Analyzed: 02/14/22 23:02									
QC Source Sample: Non-SDG (A2B0224-02)												
EPA 6020B												
Beryllium	26.0	0.500	1.00	ug/L	1	27.8	ND	93	75-125%	---	---	
Cadmium	55.5	0.500	1.00	ug/L	1	55.6	ND	100	75-125%	---	---	
Iron	7970	25.0	50.0	ug/L	1	2780	5230	99	75-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0503 - EPA 3051A						Soil						
Blank (22B0503-BLK1)			Prepared: 02/14/22 11:14 Analyzed: 02/16/22 13:05									
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Beryllium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Cadmium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Chromium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Cobalt	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Copper	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Nickel	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Selenium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Thallium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Vanadium	ND	0.962	1.92	mg/kg wet	10	---	---	---	---	---	---	
Zinc	ND	1.92	3.85	mg/kg wet	10	---	---	---	---	---	---	

LCS (22B0503-BS1)

Prepared: 02/14/22 11:14 Analyzed: 02/16/22 13:10

EPA 6020B												
Arsenic	45.8	0.500	1.00	mg/kg wet	10	50.0	---	92	80-120%	---	---	
Barium	47.3	0.500	1.00	mg/kg wet	10	50.0	---	95	80-120%	---	---	
Beryllium	23.3	0.100	0.200	mg/kg wet	10	25.0	---	93	80-120%	---	---	
Cadmium	44.1	0.100	0.200	mg/kg wet	10	50.0	---	88	80-120%	---	---	
Chromium	44.6	0.500	1.00	mg/kg wet	10	50.0	---	89	80-120%	---	---	
Cobalt	45.2	0.500	1.00	mg/kg wet	10	50.0	---	90	80-120%	---	---	
Copper	47.9	1.00	2.00	mg/kg wet	10	50.0	---	96	80-120%	---	---	
Lead	47.2	0.100	0.200	mg/kg wet	10	50.0	---	94	80-120%	---	---	
Nickel	45.2	1.00	2.00	mg/kg wet	10	50.0	---	90	80-120%	---	---	B-02
Selenium	21.6	0.500	1.00	mg/kg wet	10	25.0	---	86	80-120%	---	---	
Thallium	22.3	0.100	0.200	mg/kg wet	10	25.0	---	89	80-120%	---	---	
Vanadium	45.3	1.00	2.00	mg/kg wet	10	50.0	---	91	80-120%	---	---	
Zinc	46.8	2.00	4.00	mg/kg wet	10	50.0	---	94	80-120%	---	---	

Duplicate (22B0503-DUP1)

Prepared: 02/14/22 11:14 Analyzed: 02/16/22 13:19

QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15)**EPA 6020B**

Apex Laboratories

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0503 - EPA 3051A						Soil						
Duplicate (22B0503-DUP1)				Prepared: 02/14/22 11:14 Analyzed: 02/16/22 13:19								
QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15)												
Arsenic	3.17	0.748	1.50	mg/kg dry	10	---	3.15	---	---	0.5	20%	Ja
Barium	49.8	0.748	1.50	mg/kg dry	10	---	41.8	---	---	17	20%	
Beryllium	0.224	0.150	0.299	mg/kg dry	10	---	0.228	---	---	2	20%	
Cadmium	0.725	0.150	0.299	mg/kg dry	10	---	0.847	---	---	15	20%	
Chromium	14.7	0.748	1.50	mg/kg dry	10	---	12.9	---	---	12	20%	
Cobalt	6.14	0.748	1.50	mg/kg dry	10	---	6.34	---	---	3	20%	
Copper	94.9	1.50	2.99	mg/kg dry	10	---	86.9	---	---	9	20%	
Lead	148	0.150	0.299	mg/kg dry	10	---	149	---	---	1	20%	
Selenium	ND	0.748	1.50	mg/kg dry	10	---	ND	---	---	---	20%	
Thallium	ND	0.150	0.299	mg/kg dry	10	---	ND	---	---	---	20%	
Vanadium	29.9	1.50	2.99	mg/kg dry	10	---	26.1	---	---	14	20%	
Zinc	321	2.99	5.98	mg/kg dry	10	---	389	---	---	19	20%	
Duplicate (22B0503-DUP2)				Prepared: 02/14/22 11:14 Analyzed: 02/17/22 22:35								
QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15RE1)												
EPA 6020B												
Nickel	17.9	1.50	2.99	mg/kg dry	10	---	16.2	---	---	10	20%	Q-16
Matrix Spike (22B0503-MS1)				Prepared: 02/14/22 11:14 Analyzed: 02/16/22 13:24								
QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15)												
EPA 6020B												
Arsenic	83.4	0.836	1.67	mg/kg dry	10	83.6	3.15	96	75-125%	---	---	Q-04
Barium	141	0.836	1.67	mg/kg dry	10	83.6	41.8	118	75-125%	---	---	
Beryllium	39.7	0.167	0.334	mg/kg dry	10	41.8	0.228	94	75-125%	---	---	
Cadmium	80.2	0.167	0.334	mg/kg dry	10	83.6	0.847	95	75-125%	---	---	
Chromium	95.0	0.836	1.67	mg/kg dry	10	83.6	12.9	98	75-125%	---	---	
Cobalt	89.8	0.836	1.67	mg/kg dry	10	83.6	6.34	100	75-125%	---	---	
Copper	203	1.67	3.34	mg/kg dry	10	83.6	86.9	138	75-125%	---	---	
Lead	245	0.167	0.334	mg/kg dry	10	83.6	149	115	75-125%	---	---	
Selenium	39.3	0.836	1.67	mg/kg dry	10	41.8	ND	94	75-125%	---	---	
Thallium	36.8	0.167	0.334	mg/kg dry	10	41.8	ND	88	75-125%	---	---	
Vanadium	113	1.67	3.34	mg/kg dry	10	83.6	26.1	103	75-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067**Project Manager: **Josh Bale**Report ID:**A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0503 - EPA 3051A							Soil					
Matrix Spike (22B0503-MS1)			Prepared: 02/14/22 11:14 Analyzed: 02/16/22 13:24									
QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15)												
Zinc	444	3.34	6.69	mg/kg dry	10	83.6	389	66	75-125%	---	---	Q-04
Matrix Spike (22B0503-MS2)			Prepared: 02/14/22 11:14 Analyzed: 02/17/22 22:39									
QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15RE1)												
EPA 6020B												
Nickel	97.8	1.67	3.34	mg/kg dry	10	83.6	16.2	98	75-125%	---	---	Q-16

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0436 - Matrix Matched Direct Inject							Water					
Blank (22B0436-BLK1)			Prepared: 02/11/22 09:49		Analyzed: 02/18/22 00:05							
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	

LCS (22B0436-BS1)

Prepared: 02/11/22 09:49 Analyzed: 02/18/22 00:19

EPA 6020B (Diss)												
Arsenic	51.0	0.500	1.00	ug/L	1	55.6	---	92	80-120%	---	---	
Barium	54.1	0.500	1.00	ug/L	1	55.6	---	97	80-120%	---	---	
Beryllium	24.6	0.100	0.200	ug/L	1	27.8	---	89	80-120%	---	---	
Cadmium	51.2	0.100	0.200	ug/L	1	55.6	---	92	80-120%	---	---	
Chromium	51.4	1.00	2.00	ug/L	1	55.6	---	93	80-120%	---	---	
Cobalt	52.8	0.500	1.00	ug/L	1	55.6	---	95	80-120%	---	---	
Copper	54.0	1.00	2.00	ug/L	1	55.6	---	97	80-120%	---	---	
Iron	2720	25.0	50.0	ug/L	1	2780	---	98	80-120%	---	---	
Lead	52.0	0.100	0.200	ug/L	1	55.6	---	94	80-120%	---	---	
Nickel	52.6	1.00	2.00	ug/L	1	55.6	---	95	80-120%	---	---	
Selenium	24.9	0.500	1.00	ug/L	1	27.8	---	90	80-120%	---	---	
Thallium	24.0	0.100	0.200	ug/L	1	27.8	---	86	80-120%	---	---	
Vanadium	52.4	1.00	2.00	ug/L	1	55.6	---	94	80-120%	---	---	
Zinc	52.8	2.00	4.00	ug/L	1	55.6	---	95	80-120%	---	---	

Duplicate (22B0436-DUP1)

Prepared: 02/11/22 09:49 Analyzed: 02/18/22 00:38

Apex Laboratories

Philip Nerenberg, Lab Director

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GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0436 - Matrix Matched Direct Inject							Water					
Duplicate (22B0436-DUP1)			Prepared: 02/11/22 09:49		Analyzed: 02/18/22 00:38							
QC Source Sample: EB-02 (A2B0202-34)												
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Barium	1.40	0.500	1.00	ug/L	1	---	1.40	---	---	0.7	20%	
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Cobalt	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Copper	1.44	1.00	2.00	ug/L	1	---	1.42	---	---	1	20%	Ja
Iron	37.6	25.0	50.0	ug/L	1	---	35.3	---	---	6	20%	Ja
Lead	0.103	0.100	0.200	ug/L	1	---	0.108	---	---	4	20%	Ja
Nickel	2.78	1.00	2.00	ug/L	1	---	2.82	---	---	2	20%	
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Zinc	3.23	2.00	4.00	ug/L	1	---	3.10	---	---	4	20%	Ja

Matrix Spike (22B0436-MS1)

Prepared: 02/11/22 09:49 Analyzed: 02/18/22 00:29

QC Source Sample: EB-01 (A2B0202-33)

EPA 6020B (Diss)

Arsenic	52.5	0.500	1.00	ug/L	1	55.6	ND	94	75-125%	---	---
Barium	56.3	0.500	1.00	ug/L	1	55.6	0.505	100	75-125%	---	---
Beryllium	25.6	0.100	0.200	ug/L	1	27.8	ND	92	75-125%	---	---
Cadmium	51.8	0.100	0.200	ug/L	1	55.6	ND	93	75-125%	---	---
Chromium	53.0	1.00	2.00	ug/L	1	55.6	ND	95	75-125%	---	---
Cobalt	54.2	0.500	1.00	ug/L	1	55.6	ND	97	75-125%	---	---
Copper	55.9	1.00	2.00	ug/L	1	55.6	ND	101	75-125%	---	---
Iron	2730	25.0	50.0	ug/L	1	2780	ND	98	75-125%	---	---
Lead	53.5	0.100	0.200	ug/L	1	55.6	ND	96	75-125%	---	---
Nickel	55.2	1.00	2.00	ug/L	1	55.6	ND	99	75-125%	---	---
Selenium	26.0	0.500	1.00	ug/L	1	27.8	ND	94	75-125%	---	---
Thallium	25.0	0.100	0.200	ug/L	1	27.8	ND	90	75-125%	---	---
Vanadium	53.6	1.00	2.00	ug/L	1	55.6	ND	96	75-125%	---	---
Zinc	55.0	2.00	4.00	ug/L	1	55.6	ND	99	75-125%	---	---

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Philip Nerenberg, Lab Director



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Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0436 - Matrix Matched Direct Inject							Water					

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0347 - EPA 3060A						Soil						
Blank (22B0347-BLK1)			Prepared: 02/09/22 09:40 Analyzed: 02/10/22 17:31									
EPA 7196A												
Chromium (VI)	ND	0.225	0.450	mg/kg wet	1	---	---	---	---	---	---	
LCS (22B0347-BS1)			Prepared: 02/09/22 09:40 Analyzed: 02/10/22 17:32									
EPA 7196A												
Chromium (VI)	18.9	0.225	0.450	mg/kg wet	1	20.0	---	94	80-120%	---	---	
Duplicate (22B0347-DUP1)			Prepared: 02/09/22 09:40 Analyzed: 02/10/22 17:35									
QC Source Sample: HA-102-Comp-1.0-2.0 0222 (A2B0202-06)												
EPA 7196A												
Chromium (VI)	ND	6.54	13.1	mg/kg dry	10	---	ND	---	---	---	20%	Q-57
Matrix Spike (22B0347-MS1)			Prepared: 02/09/22 09:40 Analyzed: 02/10/22 17:36									
QC Source Sample: HA-102-Comp-1.0-2.0 0222 (A2B0202-06)												
EPA 7196A												
Chromium (VI)	9.36	6.57	13.1	mg/kg dry	10	64.8	ND	14	75-125%	---	---	Cr6-01, Q-57, Ja
Matrix Spike (22B0347-MS2)			Prepared: 02/09/22 09:40 Analyzed: 02/10/22 17:37									
QC Source Sample: HA-102-Comp-1.0-2.0 0222 (A2B0202-06)												
EPA 7196A												
Chromium (VI)	2570	67.3	135	mg/kg dry	100	4150	ND	62	75-125%	---	---	Cr6-01, Q-57
Post Spike (22B0347-PS1)			Prepared: 02/09/22 09:40 Analyzed: 02/10/22 17:41									
QC Source Sample: HA-102-Comp-1.0-2.0 0222 (A2B0202-06)												
EPA 7196A												
Chromium (VI)	500	6.62	13.2	mg/kg dry	10	521	ND	96	85-115%		---	Q-57

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0439 - EPA 3060A						Soil						
Blank (22B0439-BLK1)			Prepared: 02/11/22 10:17 Analyzed: 02/14/22 12:24									
EPA 7196A												
Chromium (VI)	ND	0.225	0.450	mg/kg wet	1	---	---	---	---	---	---	
LCS (22B0439-BS1)			Prepared: 02/11/22 10:17 Analyzed: 02/14/22 12:25									
EPA 7196A												
Chromium (VI)	17.9	0.225	0.450	mg/kg wet	1	20.0	---	89	80-120%	---	---	
Duplicate (22B0439-DUP1)			Prepared: 02/11/22 10:17 Analyzed: 02/14/22 12:31									
QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15)												
EPA 7196A												
Chromium (VI)	ND	3.01	6.01	mg/kg dry	10	---	ND	---	---	---	20%	Q-57
Matrix Spike (22B0439-MS1)			Prepared: 02/11/22 10:17 Analyzed: 02/14/22 12:31									
QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15)												
EPA 7196A												
Chromium (VI)	7.51	3.01	6.02	mg/kg dry	10	29.7	ND	25	75-125%	---	---	Cr6-01, Q-57
Matrix Spike (22B0439-MS2)			Prepared: 02/11/22 10:17 Analyzed: 02/14/22 12:32									
QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15)												
EPA 7196A												
Chromium (VI)	1530	30.2	60.3	mg/kg dry	100	1810	ND	85	75-125%	---	---	
Post Spike (22B0439-PS1)			Prepared: 02/11/22 10:17 Analyzed: 02/14/22 12:35									
QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15)												
EPA 7196A												
Chromium (VI)	217	3.01	6.01	mg/kg dry	10	236	ND	92	85-115%		---	Q-57

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Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0565 - EPA 3060A							Soil					
Blank (22B0565-BLK1)			Prepared: 02/15/22 12:18 Analyzed: 02/17/22 15:13									
<u>EPA 7196A</u>												
Chromium (VI)	ND	0.225	0.450	mg/kg wet	1	---	---	---	---	---	---	
Blank (22B0565-BLK2)			Prepared: 02/15/22 12:18 Analyzed: 02/17/22 17:10									
<u>EPA 7196A</u>												
Chromium (VI)	ND	0.225	0.450	mg/kg wet	1	---	---	---	---	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0707 - EPA 3060A						Soil						
Blank (22B0707-BLK1)			Prepared: 02/18/22 08:31 Analyzed: 02/21/22 15:20									
EPA 7196A												
Chromium (VI)	ND	0.225	0.450	mg/kg wet	1	---	---	---	---	---	---	
LCS (22B0707-BS1)			Prepared: 02/18/22 08:31 Analyzed: 02/21/22 15:20									
EPA 7196A												
Chromium (VI)	18.4	0.225	0.450	mg/kg wet	1	20.0	---	92	80-120%	---	---	
Duplicate (22B0707-DUP1)			Prepared: 02/18/22 08:31 Analyzed: 02/21/22 15:23									
QC Source Sample: HA-02B-0.0-0.5 0222 (A2B0202-21RE1)												
EPA 7196A												
Chromium (VI)	ND	5.72	11.4	mg/kg dry	10	---	ND	---	---	---	20%	Q-57, R-04
Matrix Spike (22B0707-MS1)			Prepared: 02/18/22 08:31 Analyzed: 02/21/22 15:23									
QC Source Sample: HA-02B-0.0-0.5 0222 (A2B0202-21RE1)												
EPA 7196A												
Chromium (VI)	7.26	5.60	11.2	mg/kg dry	10	55.3	ND	13	75-125%	---	---	Cr6-01, Q-57, R-04, Ja
Matrix Spike (22B0707-MS2)			Prepared: 02/18/22 08:31 Analyzed: 02/21/22 15:24									
QC Source Sample: HA-02B-0.0-0.5 0222 (A2B0202-21RE1)												
EPA 7196A												
Chromium (VI)	2130	56.2	112	mg/kg dry	100	3290	ND	65	75-125%	---	---	Cr6-01, Q-57, R-04
Post Spike (22B0707-PS1)			Prepared: 02/18/22 08:31 Analyzed: 02/21/22 15:27									
QC Source Sample: HA-02B-0.0-0.5 0222 (A2B0202-21RE1)												
EPA 7196A												
Chromium (VI)	384	5.66	11.3	mg/kg dry	10	445	ND	86	85-115%		---	Q-57, R-04

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Portland, OR 97209

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Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Ammonia by Gas Diffusion and Colorimetric Detection

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0346 - Method Prep: Aq						Water						
Blank (22B0346-BLK1)			Prepared: 02/09/22 10:55		Analyzed: 02/09/22 15:16							
<u>SM 4500-NH3 G</u>												
Ammonia as N	ND	0.0100	0.0200	mg/L	1	---	---	---	---	---	---	
LCS (22B0346-BS1)			Prepared: 02/09/22 10:55		Analyzed: 02/09/22 15:17							
<u>SM 4500-NH3 G</u>												
Ammonia as N	2.03	0.0100	0.0200	mg/L	1	2.00	---	102	87-116%	---	---	
Matrix Spike (22B0346-MS1)			Prepared: 02/09/22 10:55		Analyzed: 02/09/22 15:22							
<u>QC Source Sample: PZ-01_0222 (A2B0202-35)</u>												
<u>SM 4500-NH3 G</u>												
Ammonia as N	2.58	0.0125	0.0250	mg/L	1	2.50	ND	103	87-116%	---	---	
Matrix Spike Dup (22B0346-MSD1)			Prepared: 02/09/22 10:55		Analyzed: 02/09/22 15:23							
<u>QC Source Sample: PZ-01_0222 (A2B0202-35)</u>												
<u>SM 4500-NH3 G</u>												
Ammonia as N	2.66	0.0125	0.0250	mg/L	1	2.50	ND	106	87-116%	3	13%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0241 - Method Prep: Aq						Water						
Blank (22B0241-BLK1)			Prepared: 02/05/22 12:00 Analyzed: 02/05/22 17:05									
EPA 300.0												
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	---	---	---	---	---	---	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	---	---	---	---	---	---	
Sulfate	ND	0.500	1.00	mg/L	1	---	---	---	---	---	---	
LCS (22B0241-BS1)			Prepared: 02/05/22 12:00 Analyzed: 02/05/22 17:27									
EPA 300.0												
Nitrate-Nitrogen	1.94	0.125	0.250	mg/L	1	2.00	---	97	90-110%	---	---	
Nitrite-Nitrogen	1.98	0.125	0.250	mg/L	1	2.00	---	99	90-110%	---	---	
Sulfate	8.01	0.500	1.00	mg/L	1	8.00	---	100	90-110%	---	---	
Duplicate (22B0241-DUP1)			Prepared: 02/05/22 12:00 Analyzed: 02/05/22 18:11									
QC Source Sample: PZ-01 0222 (A2B0202-35)												
EPA 300.0												
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	---	ND	---	---	---	5%	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	---	ND	---	---	---	10%	
Sulfate	6.92	0.500	1.00	mg/L	1	---	6.90	---	---	0.4	5%	
Duplicate (22B0241-DUP2)			Prepared: 02/05/22 12:00 Analyzed: 02/05/22 19:16									
QC Source Sample: PZ-05 0222 (A2B0202-40)												
EPA 300.0												
Nitrate-Nitrogen	0.329	0.125	0.250	mg/L	1	---	0.328	---	---	0.5	5%	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	---	ND	---	---	---	10%	
Sulfate	3.18	0.500	1.00	mg/L	1	---	3.24	---	---	2	5%	
Matrix Spike (22B0241-MS1)			Prepared: 02/05/22 12:00 Analyzed: 02/05/22 18:33									
QC Source Sample: PZ-01 0222 (A2B0202-35)												
EPA 300.0												
Nitrate-Nitrogen	2.45	0.156	0.312	mg/L	1	2.50	ND	98	86-118%	---	---	
Nitrite-Nitrogen	2.52	0.156	0.312	mg/L	1	2.50	ND	101	82-117%	---	---	
Sulfate	17.1	0.625	1.25	mg/L	1	10.0	6.90	102	84-119%	---	---	
Matrix Spike (22B0241-MS2)			Prepared: 02/05/22 12:00 Analyzed: 02/05/22 20:21									

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Project Number: 00171.067

Project Manager: Josh Bale

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A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0241 - Method Prep: Aq							Water					
Matrix Spike (22B0241-MS2)			Prepared: 02/05/22 12:00		Analyzed: 02/05/22 20:21							
QC Source Sample: PZ-05 0222 (A2B0202-40)												
EPA 300.0												
Nitrate-Nitrogen	2.77	0.156	0.312	mg/L	1	2.50	0.328	98	86-118%	---	---	
Nitrite-Nitrogen	2.50	0.156	0.312	mg/L	1	2.50	ND	100	82-117%	---	---	
Sulfate	13.4	0.625	1.25	mg/L	1	10.0	3.24	101	84-119%	---	---	

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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: **00171.067**Project Manager: **Josh Bale**Report ID:**A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0383 - Method Prep: Aq						Water						
Blank (22B0383-BLK1)			Prepared: 02/10/22 09:04 Analyzed: 02/10/22 13:39									
SM 5310 C												
Total Organic Carbon	ND	1.00	1.00	mg/L	1	---	---	---	---	---	---	
LCS (22B0383-BS1)			Prepared: 02/10/22 09:04 Analyzed: 02/10/22 15:07									
SM 5310 C												
Total Organic Carbon	10.3	1.00	1.00	mg/L	1	10.0	---	103	90-114%	---	---	
Duplicate (22B0383-DUP1)			Prepared: 02/10/22 09:04 Analyzed: 02/10/22 22:04									
QC Source Sample: SW-09 0222 (A2B0202-41)												
SM 5310 C												
Total Organic Carbon	1.96	1.00	1.00	mg/L	1	---	1.95	---	---	0.7	15%	
Duplicate (22B0383-DUP2)			Prepared: 02/10/22 09:04 Analyzed: 02/11/22 05:02									
QC Source Sample: Non-SDG (A2B0266-02)												
Total Organic Carbon	1.22	1.00	1.00	mg/L	1	---	1.15	---	---	6	15%	
Matrix Spike (22B0383-MS1)			Prepared: 02/10/22 09:04 Analyzed: 02/10/22 22:34									
QC Source Sample: SW-09 0222 (A2B0202-41)												
SM 5310 C												
Total Organic Carbon	12.1	1.01	1.01	mg/L	1	10.0	1.95	102	85-115%	---	---	
Matrix Spike (22B0383-MS2)			Prepared: 02/10/22 09:04 Analyzed: 02/11/22 05:32									
QC Source Sample: Non-SDG (A2B0266-02)												
SM 5310 C												
Total Organic Carbon	11.4	1.01	1.01	mg/L	1	10.0	1.15	103	85-115%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0402 - Method Prep: Aq						Water						
Blank (22B0402-BLK1)			Prepared: 02/10/22 12:10		Analyzed: 02/10/22 13:13							
SM 2320 B												
Total Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Bicarbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
LCS (22B0402-BS1)			Prepared: 02/10/22 12:10		Analyzed: 02/10/22 14:21							
SM 2320 B												
Total Alkalinity	104	20.0	20.0	mg CaCO3/L	1	100	---	104	90-110%	---	---	
Duplicate (22B0402-DUP1)			Prepared: 02/10/22 12:10		Analyzed: 02/10/22 18:00							
QC Source Sample: Non-SDG (A2B0258-02)												
Total Alkalinity	113	20.0	20.0	mg CaCO3/L	1	---	113	---	---	0	5%	
Bicarbonate Alkalinity	113	20.0	20.0	mg CaCO3/L	1	---	113	---	---	0	5%	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	ND	---	---	---	5%	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	ND	---	---	---	5%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0310 - Total Solids (Dry Weight)						Soil						
Duplicate (22B0310-DUP1)			Prepared: 02/08/22 13:54 Analyzed: 02/09/22 09:43						PRO			
<u>QC Source Sample: Non-SDG (A2B0131-02)</u>												
% Solids	98.5	1.00	1.00	%	1	---	98.5	---	---	0.01	10%	
Duplicate (22B0310-DUP2)			Prepared: 02/08/22 13:54 Analyzed: 02/09/22 09:43									
<u>QC Source Sample: Non-SDG (A2B0214-01)</u>												
% Solids	92.7	1.00	1.00	%	1	---	92.7	---	---	0.08	10%	
Duplicate (22B0310-DUP3)			Prepared: 02/08/22 13:54 Analyzed: 02/09/22 09:43									
<u>QC Source Sample: Non-SDG (A2B0224-01)</u>												
% Solids	81.0	1.00	1.00	%	1	---	79.9	---	---	1	10%	
Duplicate (22B0310-DUP4)			Prepared: 02/08/22 13:54 Analyzed: 02/09/22 09:43									
<u>QC Source Sample: Non-SDG (A2B0243-01)</u>												
% Solids	89.9	1.00	1.00	%	1	---	89.1	---	---	0.9	10%	
Duplicate (22B0310-DUP5)			Prepared: 02/08/22 15:21 Analyzed: 02/09/22 09:43									
<u>QC Source Sample: HA-01-Comp-0.5-1.0 0222 (A2B0202-01)</u>												
<u>EPA 8000D</u>												
% Solids	49.1	1.00	1.00	%	1	---	48.1	---	---	2	10%	
Duplicate (22B0310-DUP6)			Prepared: 02/08/22 15:21 Analyzed: 02/09/22 09:43									
<u>QC Source Sample: HA-04-Comp-0.5-1.0 0222 (A2B0202-10)</u>												
<u>EPA 8000D</u>												
% Solids	32.9	1.00	1.00	%	1	---	33.7	---	---	2	10%	
Duplicate (22B0310-DUP7)			Prepared: 02/08/22 15:21 Analyzed: 02/09/22 09:43									
<u>QC Source Sample: HA-02A-0.0-0.5 0222 (A2B0202-20)</u>												
<u>EPA 8000D</u>												
% Solids	35.2	1.00	1.00	%	1	---	27.4	---	---	25	10%	Q-04
Duplicate (22B0310-DUP8)			Prepared: 02/08/22 15:21 Analyzed: 02/09/22 09:43									

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Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0310 - Total Solids (Dry Weight)							Soil					
Duplicate (22B0310-DUP8)			Prepared: 02/08/22 15:21		Analyzed: 02/09/22 09:43							
QC Source Sample: HA-01-Comp-0.0-0.5 0222 (A2B0202-30)												
EPA 8000D												
% Solids	40.3	1.00	1.00	%	1	---	40.4	---	---	0.09	10%	
Duplicate (22B0310-DUP9)			Prepared: 02/08/22 15:21		Analyzed: 02/09/22 09:43							
QC Source Sample: Non-SDG (A2B0253-07)												
% Solids	90.7	1.00	1.00	%	1	---	87.7	---	---	3	10%	
Duplicate (22B0310-DUPA)			Prepared: 02/08/22 15:21		Analyzed: 02/09/22 09:43							
QC Source Sample: Non-SDG (A2B0257-01)												
% Solids	79.7	1.00	1.00	%	1	---	79.2	---	---	0.6	10%	
Duplicate (22B0310-DUPB)			Prepared: 02/08/22 18:10		Analyzed: 02/09/22 09:43							
QC Source Sample: Non-SDG (A2B0274-01)												
% Solids	81.0	1.00	1.00	%	1	---	80.7	---	---	0.4	10%	
Duplicate (22B0310-DUPC)			Prepared: 02/08/22 18:22		Analyzed: 02/09/22 09:43							
QC Source Sample: Non-SDG (A2B0280-02)												
% Solids	78.3	1.00	1.00	%	1	---	79.6	---	---	2	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

Hexavalent Chromium by IC

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W2B0946 - _NONE (LC)						Water						
Blank (W2B0946-BLK1)			Prepared: 02/14/22 09:30 Analyzed: 02/14/22 11:05									
EPA 218.6												
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	---	---	---	---	---	---	
LCS (W2B0946-BS1)			Prepared: 02/14/22 09:30 Analyzed: 02/14/22 11:17									
EPA 218.6												
Chromium 6+, Dissolved	5.11	0.0079	0.020	ug/l	1	5.00	---	102	90-110%	---	---	
Matrix Spike (W2B0946-MS1)			Prepared: 02/14/22 09:30 Analyzed: 02/14/22 11:29									
QC Source Sample: Non-SDG (1J15022-01)												
EPA 218.6												
Chromium 6+, Dissolved	4.94	0.0079	0.020	ug/l	1	5.00	ND	99	88-112%	---	---	
Matrix Spike (W2B0946-MS2)			Prepared: 02/14/22 09:30 Analyzed: 02/14/22 11:52									
QC Source Sample: A2B0202-23 (2B10031-01)												
EPA 218.6												
Chromium 6+, Dissolved	5.28	0.0079	0.020	ug/l	1	5.00	0.0138	105	88-112%	---	---	
Matrix Spike Dup (W2B0946-MSD1)			Prepared: 02/14/22 09:30 Analyzed: 02/14/22 11:40									
QC Source Sample: Non-SDG (1J15022-01)												
Chromium 6+, Dissolved	5.25	0.0079	0.020	ug/l	1	5.00	ND	105	88-112%	6	10%	
Matrix Spike Dup (W2B0946-MSD2)			Prepared: 02/14/22 09:30 Analyzed: 02/14/22 12:04									
QC Source Sample: A2B0202-23 (2B10031-01)												
EPA 218.6												
Chromium 6+, Dissolved	5.28	0.0079	0.020	ug/l	1	5.00	0.0138	105	88-112%	0.02	10%	

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Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0427							
A2B0202-33	Water	NWTPH-Dx	02/04/22 17:15	02/11/22 07:03	1030mL/5mL	1000mL/5mL	0.97
A2B0202-34	Water	NWTPH-Dx	02/04/22 17:30	02/11/22 07:03	800mL/5mL	1000mL/5mL	1.25
A2B0202-35	Water	NWTPH-Dx	02/04/22 12:35	02/11/22 07:03	1060mL/5mL	1000mL/5mL	0.94
A2B0202-36	Water	NWTPH-Dx	02/04/22 16:40	02/11/22 07:03	1050mL/5mL	1000mL/5mL	0.95
A2B0202-37	Water	NWTPH-Dx	02/03/22 16:50	02/11/22 07:03	1030mL/5mL	1000mL/5mL	0.97
A2B0202-38	Water	NWTPH-Dx	02/03/22 15:15	02/11/22 07:03	1040mL/5mL	1000mL/5mL	0.96
A2B0202-39	Water	NWTPH-Dx	02/03/22 12:05	02/11/22 07:03	1040mL/5mL	1000mL/5mL	0.96
A2B0202-40	Water	NWTPH-Dx	02/04/22 13:45	02/11/22 07:03	1050mL/5mL	1000mL/5mL	0.95
A2B0202-41	Water	NWTPH-Dx	02/02/22 13:25	02/11/22 07:03	1040mL/5mL	1000mL/5mL	0.96
A2B0202-42	Water	NWTPH-Dx	02/02/22 13:30	02/11/22 07:03	1050mL/5mL	1000mL/5mL	0.95
A2B0202-43	Water	NWTPH-Dx	02/02/22 11:00	02/11/22 07:03	1010mL/5mL	1000mL/5mL	0.99
A2B0202-44	Water	NWTPH-Dx	02/02/22 12:10	02/11/22 07:03	1020mL/5mL	1000mL/5mL	0.98
A2B0202-45	Water	NWTPH-Dx	02/02/22 14:22	02/11/22 07:03	1050mL/5mL	1000mL/5mL	0.95
A2B0202-46	Water	NWTPH-Dx	02/02/22 15:15	02/11/22 07:03	1040mL/5mL	1000mL/5mL	0.96
A2B0202-47	Water	NWTPH-Dx	02/02/22 16:00	02/11/22 07:03	1050mL/5mL	1000mL/5mL	0.95
A2B0202-48	Water	NWTPH-Dx	02/02/22 17:25	02/11/22 07:03	1010mL/5mL	1000mL/5mL	0.99
A2B0202-49	Water	NWTPH-Dx	02/04/22 14:55	02/11/22 07:03	1030mL/5mL	1000mL/5mL	0.97

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0380							
A2B0202-01	Soil	NWTPH-Dx	02/04/22 17:00	02/10/22 15:21	10.34g/5mL	10g/5mL	0.97
Batch: 22B0416							
A2B0202-02	Soil	NWTPH-Dx	02/04/22 17:05	02/10/22 15:22	10.8g/5mL	10g/5mL	0.93
A2B0202-03	Soil	NWTPH-Dx	02/03/22 16:06	02/10/22 15:22	10.32g/5mL	10g/5mL	0.97
A2B0202-04	Soil	NWTPH-Dx	02/03/22 16:04	02/10/22 15:22	10.28g/5mL	10g/5mL	0.97
A2B0202-05	Soil	NWTPH-Dx	02/03/22 16:10	02/10/22 15:22	10.09g/5mL	10g/5mL	0.99
A2B0202-06	Soil	NWTPH-Dx	02/03/22 16:11	02/10/22 15:22	10.72g/5mL	10g/5mL	0.93
A2B0202-07	Soil	NWTPH-Dx	02/03/22 13:16	02/10/22 15:22	10.11g/5mL	10g/5mL	0.99
A2B0202-08	Soil	NWTPH-Dx	02/03/22 13:33	02/10/22 15:22	10.8g/5mL	10g/5mL	0.93
A2B0202-09	Soil	NWTPH-Dx	02/01/22 16:30	02/10/22 15:22	10.06g/5mL	10g/5mL	0.99
A2B0202-10	Soil	NWTPH-Dx	02/01/22 16:40	02/10/22 15:22	10.22g/5mL	10g/5mL	0.98
A2B0202-11	Soil	NWTPH-Dx	02/01/22 16:50	02/10/22 15:22	10.9g/5mL	10g/5mL	0.92
A2B0202-12	Soil	NWTPH-Dx	02/01/22 12:20	02/10/22 15:22	10.1g/5mL	10g/5mL	0.99
A2B0202-13	Soil	NWTPH-Dx	02/01/22 12:35	02/10/22 15:22	10.23g/5mL	10g/5mL	0.98

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0202-14	Soil	NWTPH-Dx	02/01/22 12:45	02/10/22 15:22	10.1g/5mL	10g/5mL	0.99
A2B0202-30	Soil	NWTPH-Dx	02/04/22 16:55	02/10/22 15:22	10.09g/5mL	10g/5mL	0.99
A2B0202-31	Soil	NWTPH-Dx	02/04/22 18:30	02/10/22 15:22	10.01g/5mL	10g/5mL	1.00
A2B0202-32	Soil	NWTPH-Dx	02/04/22 18:35	02/10/22 15:22	10.05g/5mL	10g/5mL	1.00

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0469							
A2B0202-34	Water	NWTPH-Gx (MS)	02/04/22 17:30	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-35	Water	NWTPH-Gx (MS)	02/04/22 12:35	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-36	Water	NWTPH-Gx (MS)	02/04/22 16:40	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-37	Water	NWTPH-Gx (MS)	02/03/22 16:50	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-38	Water	NWTPH-Gx (MS)	02/03/22 15:15	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-39	Water	NWTPH-Gx (MS)	02/03/22 12:05	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-40	Water	NWTPH-Gx (MS)	02/04/22 13:45	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-41	Water	NWTPH-Gx (MS)	02/02/22 13:25	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-42	Water	NWTPH-Gx (MS)	02/02/22 13:30	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-43	Water	NWTPH-Gx (MS)	02/02/22 11:00	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-44	Water	NWTPH-Gx (MS)	02/02/22 12:10	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-45	Water	NWTPH-Gx (MS)	02/02/22 14:22	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-46	Water	NWTPH-Gx (MS)	02/02/22 15:15	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-47	Water	NWTPH-Gx (MS)	02/02/22 16:00	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-48	Water	NWTPH-Gx (MS)	02/02/22 17:25	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-49	Water	NWTPH-Gx (MS)	02/04/22 14:55	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0397							
A2B0202-01	Soil	NWTPH-Gx (MS)	02/04/22 17:00	02/04/22 17:00	4.49g/5mL	5g/5mL	1.11
A2B0202-02	Soil	NWTPH-Gx (MS)	02/04/22 17:05	02/04/22 17:05	6.17g/5mL	5g/5mL	0.81
A2B0202-03	Soil	NWTPH-Gx (MS)	02/03/22 16:06	02/03/22 16:06	2.74g/5mL	5g/5mL	1.82
A2B0202-04	Soil	NWTPH-Gx (MS)	02/03/22 16:04	02/09/22 15:15	5.33g/5mL	5g/5mL	0.94
A2B0202-05	Soil	NWTPH-Gx (MS)	02/03/22 16:10	02/03/22 16:10	3.77g/5mL	5g/5mL	1.33
A2B0202-06	Soil	NWTPH-Gx (MS)	02/03/22 16:11	02/09/22 15:15	6.17g/5mL	5g/5mL	0.81
A2B0202-07	Soil	NWTPH-Gx (MS)	02/03/22 13:16	02/03/22 13:16	3.97g/5mL	5g/5mL	1.26

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ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0202-08	Soil	NWTPH-Gx (MS)	02/03/22 13:33	02/09/22 15:15	5.29g/5mL	5g/5mL	0.95
A2B0202-11	Soil	NWTPH-Gx (MS)	02/01/22 16:50	02/09/22 15:15	6.03g/5mL	5g/5mL	0.83
A2B0202-14	Soil	NWTPH-Gx (MS)	02/01/22 12:45	02/09/22 15:15	6.04g/5mL	5g/5mL	0.83

Batch: 22B0420

A2B0202-09	Soil	NWTPH-Gx (MS)	02/01/22 16:30	02/01/22 16:30	2.69g/5mL	5g/5mL	1.86
A2B0202-10	Soil	NWTPH-Gx (MS)	02/01/22 16:40	02/01/22 16:40	2.23g/5mL	5g/5mL	2.24
A2B0202-12	Soil	NWTPH-Gx (MS)	02/01/22 12:20	02/01/22 12:20	3.37g/5mL	5g/5mL	1.48
A2B0202-13	Soil	NWTPH-Gx (MS)	02/01/22 12:35	02/01/22 12:35	3.37g/5mL	5g/5mL	1.48
A2B0202-30	Soil	NWTPH-Gx (MS)	02/04/22 16:55	02/04/22 16:55	5.37g/5mL	5g/5mL	0.93
A2B0202-31	Soil	NWTPH-Gx (MS)	02/04/22 18:30	02/04/22 18:30	3.82g/5mL	5g/5mL	1.31
A2B0202-32	Soil	NWTPH-Gx (MS)	02/04/22 18:35	02/04/22 18:35	3.31g/5mL	5g/5mL	1.51

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0469							
A2B0202-35	Water	EPA 8260D	02/04/22 12:35	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-36	Water	EPA 8260D	02/04/22 16:40	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-37	Water	EPA 8260D	02/03/22 16:50	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-38	Water	EPA 8260D	02/03/22 15:15	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-39	Water	EPA 8260D	02/03/22 12:05	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-40	Water	EPA 8260D	02/04/22 13:45	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-41	Water	EPA 8260D	02/02/22 13:25	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-42	Water	EPA 8260D	02/02/22 13:30	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-43	Water	EPA 8260D	02/02/22 11:00	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-44	Water	EPA 8260D	02/02/22 12:10	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-45	Water	EPA 8260D	02/02/22 14:22	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-46	Water	EPA 8260D	02/02/22 15:15	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-47	Water	EPA 8260D	02/02/22 16:00	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-48	Water	EPA 8260D	02/02/22 17:25	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-49	Water	EPA 8260D	02/04/22 14:55	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Prep: EPA 3511 (Bottle Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
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55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Prep: EPA 3511 (Bottle Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0338							
A2B0202-35	Water	EPA 8270E LVI	02/04/22 12:35	02/09/22 07:46	91.17mL/5mL	125mL/5mL	1.37
A2B0202-36	Water	EPA 8270E LVI	02/04/22 16:40	02/09/22 07:46	105.25mL/5mL	125mL/5mL	1.19
A2B0202-37	Water	EPA 8270E LVI	02/03/22 16:50	02/09/22 07:46	107.17mL/5mL	125mL/5mL	1.17
A2B0202-38	Water	EPA 8270E LVI	02/03/22 15:15	02/09/22 07:46	113.58mL/5mL	125mL/5mL	1.10
A2B0202-39	Water	EPA 8270E LVI	02/03/22 12:05	02/09/22 07:46	87.57mL/5mL	125mL/5mL	1.43
A2B0202-40	Water	EPA 8270E LVI	02/04/22 13:45	02/09/22 07:46	109.34mL/5mL	125mL/5mL	1.14
A2B0202-41	Water	EPA 8270E LVI	02/02/22 13:25	02/09/22 07:46	91.98mL/5mL	125mL/5mL	1.36
A2B0202-42	Water	EPA 8270E LVI	02/02/22 13:30	02/09/22 07:46	98.47mL/5mL	125mL/5mL	1.27
A2B0202-43	Water	EPA 8270E LVI	02/02/22 11:00	02/09/22 07:46	113.71mL/5mL	125mL/5mL	1.10
A2B0202-44	Water	EPA 8270E LVI	02/02/22 12:10	02/09/22 07:46	120.05mL/5mL	125mL/5mL	1.04
A2B0202-45	Water	EPA 8270E LVI	02/02/22 14:22	02/09/22 07:46	113.66mL/5mL	125mL/5mL	1.10
A2B0202-46	Water	EPA 8270E LVI	02/02/22 15:15	02/09/22 07:46	120.22mL/5mL	125mL/5mL	1.04
A2B0202-47	Water	EPA 8270E LVI	02/02/22 16:00	02/09/22 07:46	119.4mL/5mL	125mL/5mL	1.05
A2B0202-48	Water	EPA 8270E LVI	02/02/22 17:25	02/09/22 07:46	118.27mL/5mL	125mL/5mL	1.06
A2B0202-49	Water	EPA 8270E LVI	02/04/22 14:55	02/09/22 07:46	120.05mL/5mL	125mL/5mL	1.04

Pentachlorophenol by EPA 8270E

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0333							
A2B0202-35	Water	EPA 8270E	02/04/22 12:35	02/09/22 07:07	950mL/1mL	1000mL/1mL	1.05
A2B0202-36	Water	EPA 8270E	02/04/22 16:40	02/09/22 07:07	1020mL/1mL	1000mL/1mL	0.98
A2B0202-37	Water	EPA 8270E	02/03/22 16:50	02/09/22 07:07	1050mL/1mL	1000mL/1mL	0.95
A2B0202-38	Water	EPA 8270E	02/03/22 15:15	02/09/22 07:07	1010mL/1mL	1000mL/1mL	0.99
A2B0202-39	Water	EPA 8270E	02/03/22 12:05	02/09/22 07:07	1010mL/1mL	1000mL/1mL	0.99
A2B0202-40	Water	EPA 8270E	02/04/22 13:45	02/09/22 07:07	1040mL/1mL	1000mL/1mL	0.96
A2B0202-41	Water	EPA 8270E	02/02/22 13:25	02/09/22 07:07	1020mL/1mL	1000mL/1mL	0.98
A2B0202-42	Water	EPA 8270E	02/02/22 13:30	02/09/22 07:07	1020mL/1mL	1000mL/1mL	0.98
A2B0202-43	Water	EPA 8270E	02/02/22 11:00	02/09/22 07:07	960mL/1mL	1000mL/1mL	1.04
A2B0202-44	Water	EPA 8270E	02/02/22 12:10	02/09/22 07:07	1040mL/1mL	1000mL/1mL	0.96
A2B0202-45	Water	EPA 8270E	02/02/22 14:22	02/09/22 07:07	1030mL/1mL	1000mL/1mL	0.97
A2B0202-46	Water	EPA 8270E	02/02/22 15:15	02/09/22 07:07	1010mL/1mL	1000mL/1mL	0.99
A2B0202-47	Water	EPA 8270E	02/02/22 16:00	02/09/22 07:07	1040mL/1mL	1000mL/1mL	0.96
A2B0202-48	Water	EPA 8270E	02/02/22 17:25	02/09/22 07:07	1020mL/1mL	1000mL/1mL	0.98
A2B0202-49	Water	EPA 8270E	02/04/22 14:55	02/09/22 07:07	1050mL/1mL	1000mL/1mL	0.95

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Pentachlorophenol by EPA 8270E

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0387							
A2B0202-34RE1	Water	EPA 6020B	02/04/22 17:30	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-35	Water	EPA 6020B	02/04/22 12:35	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-35RE1	Water	EPA 6020B	02/04/22 12:35	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-36	Water	EPA 6020B	02/04/22 16:40	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-36RE1	Water	EPA 6020B	02/04/22 16:40	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-37	Water	EPA 6020B	02/03/22 16:50	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-37RE1	Water	EPA 6020B	02/03/22 16:50	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-38	Water	EPA 6020B	02/03/22 15:15	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-38RE1	Water	EPA 6020B	02/03/22 15:15	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-39	Water	EPA 6020B	02/03/22 12:05	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-39RE1	Water	EPA 6020B	02/03/22 12:05	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-40	Water	EPA 6020B	02/04/22 13:45	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-40RE1	Water	EPA 6020B	02/04/22 13:45	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-41	Water	EPA 6020B	02/02/22 13:25	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-41RE1	Water	EPA 6020B	02/02/22 13:25	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
Batch: 22B0435							
A2B0202-42	Water	EPA 6020B	02/02/22 13:30	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-42RE1	Water	EPA 6020B	02/02/22 13:30	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-43	Water	EPA 6020B	02/02/22 11:00	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-43RE1	Water	EPA 6020B	02/02/22 11:00	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-44	Water	EPA 6020B	02/02/22 12:10	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-44RE1	Water	EPA 6020B	02/02/22 12:10	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-45	Water	EPA 6020B	02/02/22 14:22	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-45RE1	Water	EPA 6020B	02/02/22 14:22	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-46	Water	EPA 6020B	02/02/22 15:15	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-46RE1	Water	EPA 6020B	02/02/22 15:15	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-47	Water	EPA 6020B	02/02/22 16:00	02/11/22 09:34	42mL/50mL	45mL/50mL	1.07
A2B0202-47RE1	Water	EPA 6020B	02/02/22 16:00	02/11/22 09:34	42mL/50mL	45mL/50mL	1.07
A2B0202-48	Water	EPA 6020B	02/02/22 17:25	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-48RE1	Water	EPA 6020B	02/02/22 17:25	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-49	Water	EPA 6020B	02/04/22 14:55	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-49RE1	Water	EPA 6020B	02/04/22 14:55	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22B0382</u>							
A2B0202-01	Soil	EPA 6020B	02/04/22 17:00	02/10/22 09:03	0.493g/50mL	0.5g/50mL	1.01
A2B0202-02	Soil	EPA 6020B	02/04/22 17:05	02/10/22 09:03	0.509g/50mL	0.5g/50mL	0.98
A2B0202-03	Soil	EPA 6020B	02/03/22 16:06	02/10/22 09:03	0.517g/50mL	0.5g/50mL	0.97
A2B0202-04	Soil	EPA 6020B	02/03/22 16:04	02/10/22 09:03	0.511g/50mL	0.5g/50mL	0.98
A2B0202-05	Soil	EPA 6020B	02/03/22 16:10	02/10/22 09:03	0.455g/50mL	0.5g/50mL	1.10
A2B0202-05RE2	Soil	EPA 6020B	02/03/22 16:10	02/10/22 09:03	0.455g/50mL	0.5g/50mL	1.10
A2B0202-06	Soil	EPA 6020B	02/03/22 16:11	02/10/22 09:03	0.513g/50mL	0.5g/50mL	0.98
A2B0202-07	Soil	EPA 6020B	02/03/22 13:16	02/10/22 09:03	0.472g/50mL	0.5g/50mL	1.06
A2B0202-08	Soil	EPA 6020B	02/03/22 13:33	02/10/22 09:03	0.473g/50mL	0.5g/50mL	1.06
A2B0202-09	Soil	EPA 6020B	02/01/22 16:30	02/10/22 09:03	0.452g/50mL	0.5g/50mL	1.11
A2B0202-10	Soil	EPA 6020B	02/01/22 16:40	02/10/22 09:03	0.513g/50mL	0.5g/50mL	0.98
A2B0202-11	Soil	EPA 6020B	02/01/22 16:50	02/10/22 09:03	0.512g/50mL	0.5g/50mL	0.98
<u>Batch: 22B0432</u>							
A2B0202-12	Soil	EPA 6020B	02/01/22 12:20	02/11/22 09:03	0.509g/50mL	0.5g/50mL	0.98
A2B0202-12RE1	Soil	EPA 6020B	02/01/22 12:20	02/11/22 09:03	0.509g/50mL	0.5g/50mL	0.98
A2B0202-13	Soil	EPA 6020B	02/01/22 12:35	02/11/22 09:03	0.496g/50mL	0.5g/50mL	1.01
A2B0202-13RE1	Soil	EPA 6020B	02/01/22 12:35	02/11/22 09:03	0.496g/50mL	0.5g/50mL	1.01
A2B0202-14	Soil	EPA 6020B	02/01/22 12:45	02/11/22 09:03	0.51g/50mL	0.5g/50mL	0.98
A2B0202-14RE1	Soil	EPA 6020B	02/01/22 12:45	02/11/22 09:03	0.51g/50mL	0.5g/50mL	0.98
<u>Batch: 22B0503</u>							
A2B0202-15	Soil	EPA 6020B	02/03/22 16:25	02/14/22 11:14	0.472g/50mL	0.5g/50mL	1.06
A2B0202-15RE1	Soil	EPA 6020B	02/03/22 16:25	02/14/22 11:14	0.472g/50mL	0.5g/50mL	1.06
A2B0202-16	Soil	EPA 6020B	02/03/22 16:45	02/14/22 11:14	0.494g/50mL	0.5g/50mL	1.01
A2B0202-16RE1	Soil	EPA 6020B	02/03/22 16:45	02/14/22 11:14	0.494g/50mL	0.5g/50mL	1.01
A2B0202-17	Soil	EPA 6020B	02/04/22 15:00	02/14/22 11:14	0.461g/50mL	0.5g/50mL	1.08
A2B0202-17RE1	Soil	EPA 6020B	02/04/22 15:00	02/14/22 11:14	0.461g/50mL	0.5g/50mL	1.08
A2B0202-18	Soil	EPA 6020B	02/04/22 15:15	02/14/22 11:14	0.488g/50mL	0.5g/50mL	1.02
A2B0202-18RE1	Soil	EPA 6020B	02/04/22 15:15	02/14/22 11:14	0.488g/50mL	0.5g/50mL	1.02
A2B0202-18RE2	Soil	EPA 6020B	02/04/22 15:15	02/14/22 11:14	0.488g/50mL	0.5g/50mL	1.02
A2B0202-19	Soil	EPA 6020B	02/04/22 15:35	02/14/22 11:14	0.501g/50mL	0.5g/50mL	1.00
A2B0202-20	Soil	EPA 6020B	02/03/22 16:00	02/14/22 11:14	0.482g/50mL	0.5g/50mL	1.04
A2B0202-21	Soil	EPA 6020B	02/03/22 15:45	02/14/22 11:14	0.469g/50mL	0.5g/50mL	1.07
A2B0202-21RE1	Soil	EPA 6020B	02/03/22 15:45	02/14/22 11:14	0.469g/50mL	0.5g/50mL	1.07
A2B0202-22	Soil	EPA 6020B	02/03/22 15:10	02/14/22 11:14	0.496g/50mL	0.5g/50mL	1.01
A2B0202-22RE1	Soil	EPA 6020B	02/03/22 15:10	02/14/22 11:14	0.496g/50mL	0.5g/50mL	1.01

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0202-23	Soil	EPA 6020B	02/03/22 14:40	02/14/22 11:14	0.494g/50mL	0.5g/50mL	1.01
A2B0202-23RE1	Soil	EPA 6020B	02/03/22 14:40	02/14/22 11:14	0.494g/50mL	0.5g/50mL	1.01
A2B0202-24	Soil	EPA 6020B	02/03/22 14:00	02/14/22 11:14	0.461g/50mL	0.5g/50mL	1.08
A2B0202-24RE1	Soil	EPA 6020B	02/03/22 14:00	02/14/22 11:14	0.461g/50mL	0.5g/50mL	1.08
A2B0202-25	Soil	EPA 6020B	02/03/22 13:05	02/14/22 11:14	0.496g/50mL	0.5g/50mL	1.01
A2B0202-25RE1	Soil	EPA 6020B	02/03/22 13:05	02/14/22 11:14	0.496g/50mL	0.5g/50mL	1.01
A2B0202-26	Soil	EPA 6020B	02/03/22 12:15	02/14/22 11:14	0.468g/50mL	0.5g/50mL	1.07
A2B0202-27	Soil	EPA 6020B	02/01/22 17:00	02/14/22 11:14	0.485g/50mL	0.5g/50mL	1.03
A2B0202-28	Soil	EPA 6020B	02/03/22 10:00	02/14/22 11:14	0.488g/50mL	0.5g/50mL	1.02
A2B0202-29	Soil	EPA 6020B	02/03/22 09:25	02/14/22 11:14	0.49g/50mL	0.5g/50mL	1.02

Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0436							
A2B0202-33	Water	EPA 6020B (Diss)	02/04/22 17:15	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-34	Water	EPA 6020B (Diss)	02/04/22 17:30	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-35	Water	EPA 6020B (Diss)	02/04/22 12:35	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-36	Water	EPA 6020B (Diss)	02/04/22 16:40	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-37	Water	EPA 6020B (Diss)	02/03/22 16:50	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-38	Water	EPA 6020B (Diss)	02/03/22 15:15	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-39	Water	EPA 6020B (Diss)	02/03/22 12:05	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-40	Water	EPA 6020B (Diss)	02/04/22 13:45	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-41	Water	EPA 6020B (Diss)	02/02/22 13:25	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-42	Water	EPA 6020B (Diss)	02/02/22 13:30	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-43	Water	EPA 6020B (Diss)	02/02/22 11:00	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-44	Water	EPA 6020B (Diss)	02/02/22 12:10	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-45	Water	EPA 6020B (Diss)	02/02/22 14:22	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-46	Water	EPA 6020B (Diss)	02/02/22 15:15	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-47	Water	EPA 6020B (Diss)	02/02/22 16:00	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-48	Water	EPA 6020B (Diss)	02/02/22 17:25	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-49	Water	EPA 6020B (Diss)	02/04/22 14:55	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Apex Laboratories

Philip Nerenberg, Lab Director

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AMENDED REPORT

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Total Hexavalent Chromium by Colorimetric Spectrophotometry

Prep: EPA 3060A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0347							
A2B0202-01	Soil	EPA 7196A	02/04/22 17:00	02/09/22 09:40	2.5578g/100mL	2.5g/111mL	0.88
A2B0202-02	Soil	EPA 7196A	02/04/22 17:05	02/09/22 09:40	2.5134g/100mL	2.5g/111mL	0.90
A2B0202-03	Soil	EPA 7196A	02/03/22 16:06	02/09/22 09:40	2.5137g/100mL	2.5g/111mL	0.90
A2B0202-04	Soil	EPA 7196A	02/03/22 16:04	02/09/22 09:40	2.5253g/100mL	2.5g/111mL	0.89
A2B0202-05	Soil	EPA 7196A	02/03/22 16:10	02/09/22 09:40	2.5084g/100mL	2.5g/111mL	0.90
A2B0202-06	Soil	EPA 7196A	02/03/22 16:11	02/09/22 09:40	2.5736g/100mL	2.5g/111mL	0.88
Batch: 22B0439							
A2B0202-07RE1	Soil	EPA 7196A	02/03/22 13:16	02/11/22 10:17	2.5155g/100mL	2.5g/111mL	0.90
A2B0202-08RE1	Soil	EPA 7196A	02/03/22 13:33	02/11/22 10:17	2.5591g/100mL	2.5g/111mL	0.88
A2B0202-09RE1	Soil	EPA 7196A	02/01/22 16:30	02/11/22 10:17	2.583g/100mL	2.5g/111mL	0.87
A2B0202-10RE1	Soil	EPA 7196A	02/01/22 16:40	02/11/22 10:17	2.5679g/100mL	2.5g/111mL	0.88
A2B0202-11RE1	Soil	EPA 7196A	02/01/22 16:50	02/11/22 10:17	2.5504g/100mL	2.5g/111mL	0.88
A2B0202-12RE1	Soil	EPA 7196A	02/01/22 12:20	02/11/22 10:17	2.5433g/100mL	2.5g/111mL	0.89
A2B0202-13RE1	Soil	EPA 7196A	02/01/22 12:35	02/11/22 10:17	2.5178g/100mL	2.5g/111mL	0.90
A2B0202-14RE1	Soil	EPA 7196A	02/01/22 12:45	02/11/22 10:17	2.5851g/100mL	2.5g/111mL	0.87
A2B0202-15	Soil	EPA 7196A	02/03/22 16:25	02/11/22 10:17	2.5821g/100mL	2.5g/111mL	0.87
A2B0202-16	Soil	EPA 7196A	02/03/22 16:45	02/11/22 10:17	2.5935g/100mL	2.5g/111mL	0.87
A2B0202-17	Soil	EPA 7196A	02/04/22 15:00	02/11/22 10:17	2.5277g/100mL	2.5g/111mL	0.89
A2B0202-18	Soil	EPA 7196A	02/04/22 15:15	02/11/22 10:17	2.5841g/100mL	2.5g/111mL	0.87
A2B0202-19	Soil	EPA 7196A	02/04/22 15:35	02/11/22 10:17	2.5207g/100mL	2.5g/111mL	0.89
A2B0202-20	Soil	EPA 7196A	02/03/22 16:00	02/11/22 10:17	2.5924g/100mL	2.5g/111mL	0.87
Batch: 22B0707							
A2B0202-21RE1	Soil	EPA 7196A	02/03/22 15:45	02/18/22 08:31	2.5552g/100mL	2.5g/111mL	0.88
A2B0202-22RE1	Soil	EPA 7196A	02/03/22 15:10	02/18/22 08:31	2.5567g/100mL	2.5g/111mL	0.88
A2B0202-23RE1	Soil	EPA 7196A	02/03/22 14:40	02/18/22 08:31	2.5491g/100mL	2.5g/111mL	0.88
A2B0202-24RE1	Soil	EPA 7196A	02/03/22 14:00	02/18/22 08:31	2.5617g/100mL	2.5g/111mL	0.88
A2B0202-25RE1	Soil	EPA 7196A	02/03/22 13:05	02/18/22 08:31	2.5807g/100mL	2.5g/111mL	0.87
A2B0202-26RE1	Soil	EPA 7196A	02/03/22 12:15	02/18/22 08:31	2.5033g/100mL	2.5g/111mL	0.90
A2B0202-27RE1	Soil	EPA 7196A	02/01/22 17:00	02/18/22 08:31	2.5627g/100mL	2.5g/111mL	0.88
A2B0202-28RE1	Soil	EPA 7196A	02/03/22 10:00	02/18/22 08:31	2.5732g/100mL	2.5g/111mL	0.88
A2B0202-29RE1	Soil	EPA 7196A	02/03/22 09:25	02/18/22 08:31	2.5144g/100mL	2.5g/111mL	0.90

Ammonia by Gas Diffusion and Colorimetric Detection

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Ammonia by Gas Diffusion and Colorimetric Detection

Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0346							
A2B0202-35	Water	SM 4500-NH3 G	02/04/22 12:35	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-36	Water	SM 4500-NH3 G	02/04/22 16:40	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-37	Water	SM 4500-NH3 G	02/03/22 16:50	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-38	Water	SM 4500-NH3 G	02/03/22 15:15	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-39	Water	SM 4500-NH3 G	02/03/22 12:05	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-40	Water	SM 4500-NH3 G	02/04/22 13:45	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-41	Water	SM 4500-NH3 G	02/02/22 13:25	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-42RE1	Water	SM 4500-NH3 G	02/02/22 13:30	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-43RE1	Water	SM 4500-NH3 G	02/02/22 11:00	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-44RE1	Water	SM 4500-NH3 G	02/02/22 12:10	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-45RE1	Water	SM 4500-NH3 G	02/02/22 14:22	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-46RE1	Water	SM 4500-NH3 G	02/02/22 15:15	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-47RE1	Water	SM 4500-NH3 G	02/02/22 16:00	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-48RE1	Water	SM 4500-NH3 G	02/02/22 17:25	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-49RE1	Water	SM 4500-NH3 G	02/04/22 14:55	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00

Anions by Ion Chromatography

Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0241							
A2B0202-34	Water	EPA 300.0	02/04/22 17:30	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-35	Water	EPA 300.0	02/04/22 12:35	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-36	Water	EPA 300.0	02/04/22 16:40	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-37	Water	EPA 300.0	02/03/22 16:50	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-38	Water	EPA 300.0	02/03/22 15:15	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-39	Water	EPA 300.0	02/03/22 12:05	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-40	Water	EPA 300.0	02/04/22 13:45	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-41	Water	EPA 300.0	02/02/22 13:25	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-42	Water	EPA 300.0	02/02/22 13:30	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-43	Water	EPA 300.0	02/02/22 11:00	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-44	Water	EPA 300.0	02/02/22 12:10	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-45	Water	EPA 300.0	02/02/22 14:22	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-45RE1	Water	EPA 300.0	02/02/22 14:22	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-46	Water	EPA 300.0	02/02/22 15:15	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-47	Water	EPA 300.0	02/02/22 16:00	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Eatonville

Project Number: 00171.067

Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Anions by Ion Chromatography

Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0202-47RE1	Water	EPA 300.0	02/02/22 16:00	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-48	Water	EPA 300.0	02/02/22 17:25	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-49	Water	EPA 300.0	02/04/22 14:55	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0383							
A2B0202-35RE1	Water	SM 5310 C	02/04/22 12:35	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-36	Water	SM 5310 C	02/04/22 16:40	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-37	Water	SM 5310 C	02/03/22 16:50	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-38	Water	SM 5310 C	02/03/22 15:15	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-39	Water	SM 5310 C	02/03/22 12:05	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-40	Water	SM 5310 C	02/04/22 13:45	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-41	Water	SM 5310 C	02/02/22 13:25	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-42	Water	SM 5310 C	02/02/22 13:30	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-43	Water	SM 5310 C	02/02/22 11:00	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-44	Water	SM 5310 C	02/02/22 12:10	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-45	Water	SM 5310 C	02/02/22 14:22	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-46	Water	SM 5310 C	02/02/22 15:15	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-47	Water	SM 5310 C	02/02/22 16:00	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-48	Water	SM 5310 C	02/02/22 17:25	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-49	Water	SM 5310 C	02/04/22 14:55	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00

Conventional Chemistry Parameters

Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22B0402							
A2B0202-35	Water	SM 2320 B	02/04/22 12:35	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-36	Water	SM 2320 B	02/04/22 16:40	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-37	Water	SM 2320 B	02/03/22 16:50	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-38	Water	SM 2320 B	02/03/22 15:15	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-39	Water	SM 2320 B	02/03/22 12:05	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-40	Water	SM 2320 B	02/04/22 13:45	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-41	Water	SM 2320 B	02/02/22 13:25	02/10/22 12:10	30mL/30mL	60mL/60mL	NA

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115**

SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0202-42	Water	SM 2320 B	02/02/22 13:30	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-43	Water	SM 2320 B	02/02/22 11:00	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-44	Water	SM 2320 B	02/02/22 12:10	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-45	Water	SM 2320 B	02/02/22 14:22	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-46	Water	SM 2320 B	02/02/22 15:15	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-47	Water	SM 2320 B	02/02/22 16:00	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-48	Water	SM 2320 B	02/02/22 17:25	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-49	Water	SM 2320 B	02/04/22 14:55	02/10/22 12:10	30mL/30mL	60mL/60mL	NA

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22B0310</u>							
A2B0202-01	Soil	EPA 8000D	02/04/22 17:00	02/08/22 15:21			NA
A2B0202-02	Soil	EPA 8000D	02/04/22 17:05	02/08/22 15:21			NA
A2B0202-03	Soil	EPA 8000D	02/03/22 16:06	02/08/22 15:21			NA
A2B0202-04	Soil	EPA 8000D	02/03/22 16:04	02/08/22 15:21			NA
A2B0202-05	Soil	EPA 8000D	02/03/22 16:10	02/08/22 15:21			NA
A2B0202-06	Soil	EPA 8000D	02/03/22 16:11	02/08/22 15:21			NA
A2B0202-07	Soil	EPA 8000D	02/03/22 13:16	02/08/22 15:21			NA
A2B0202-08	Soil	EPA 8000D	02/03/22 13:33	02/08/22 15:21			NA
A2B0202-09	Soil	EPA 8000D	02/01/22 16:30	02/08/22 15:21			NA
A2B0202-10	Soil	EPA 8000D	02/01/22 16:40	02/08/22 15:21			NA
A2B0202-11	Soil	EPA 8000D	02/01/22 16:50	02/08/22 15:21			NA
A2B0202-12	Soil	EPA 8000D	02/01/22 12:20	02/08/22 15:21			NA
A2B0202-13	Soil	EPA 8000D	02/01/22 12:35	02/08/22 15:21			NA
A2B0202-14	Soil	EPA 8000D	02/01/22 12:45	02/08/22 15:21			NA
A2B0202-15	Soil	EPA 8000D	02/03/22 16:25	02/08/22 15:21			NA
A2B0202-16	Soil	EPA 8000D	02/03/22 16:45	02/08/22 15:21			NA
A2B0202-17	Soil	EPA 8000D	02/04/22 15:00	02/08/22 15:21			NA
A2B0202-18	Soil	EPA 8000D	02/04/22 15:15	02/08/22 15:21			NA
A2B0202-19	Soil	EPA 8000D	02/04/22 15:35	02/08/22 15:21			NA
A2B0202-20	Soil	EPA 8000D	02/03/22 16:00	02/08/22 15:21			NA
A2B0202-21	Soil	EPA 8000D	02/03/22 15:45	02/08/22 15:21			NA
A2B0202-22	Soil	EPA 8000D	02/03/22 15:10	02/08/22 15:21			NA
A2B0202-23	Soil	EPA 8000D	02/03/22 14:40	02/08/22 15:21			NA

Apex Laboratories

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC****6700 S.W. Sandburg Street****Tigard, OR 97223****503-718-2323****ORELAP ID: OR100062****GSI Water Solutions****55 SW Yamhill St, Ste 300****Portland, OR 97209**Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115****SAMPLE PREPARATION INFORMATION****Percent Dry Weight****Prep: Total Solids (Dry Weight)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2B0202-24	Soil	EPA 8000D	02/03/22 14:00	02/08/22 15:21			NA
A2B0202-25	Soil	EPA 8000D	02/03/22 13:05	02/08/22 15:21			NA
A2B0202-26	Soil	EPA 8000D	02/03/22 12:15	02/08/22 15:21			NA
A2B0202-27	Soil	EPA 8000D	02/01/22 17:00	02/08/22 15:21			NA
A2B0202-28	Soil	EPA 8000D	02/03/22 10:00	02/08/22 15:21			NA
A2B0202-29	Soil	EPA 8000D	02/03/22 09:25	02/08/22 15:21			NA
A2B0202-30	Soil	EPA 8000D	02/04/22 16:55	02/08/22 15:21			NA
A2B0202-31	Soil	EPA 8000D	02/04/22 18:30	02/08/22 15:21			NA
A2B0202-32	Soil	EPA 8000D	02/04/22 18:35	02/08/22 15:21			NA

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115****Weck Laboratories, Inc.****SAMPLE PREPARATION INFORMATION****Hexavalent Chromium by IC**Prep: **NONE (LC)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: W2B0946							
A2B0202-34	Water	EPA 218.6	02/04/22 17:30	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-35	Water	EPA 218.6	02/04/22 12:35	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-36	Water	EPA 218.6	02/04/22 16:40	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-37	Water	EPA 218.6	02/03/22 16:50	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-38	Water	EPA 218.6	02/03/22 15:15	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-39	Water	EPA 218.6	02/03/22 12:05	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-40	Water	EPA 218.6	02/04/22 13:45	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-41	Water	EPA 218.6	02/02/22 13:25	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-42	Water	EPA 218.6	02/02/22 13:30	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-43	Water	EPA 218.6	02/02/22 11:00	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-44	Water	EPA 218.6	02/02/22 12:10	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-45	Water	EPA 218.6	02/02/22 14:22	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-46	Water	EPA 218.6	02/02/22 15:15	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-47	Water	EPA 218.6	02/02/22 16:00	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-48	Water	EPA 218.6	02/02/22 17:25	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-49	Water	EPA 218.6	02/04/22 14:55	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115****QUALIFIER DEFINITIONS****Client Sample and Quality Control (QC) Sample Qualifier Definitions:****Apex Laboratories**

- B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- Cr6-01** Matrix Spike fails due to probable reducing conditions present in the sample. Sample is ND. Data quality is not affected because any hexavalent chromium present in the sample is likely to have been reduced to chromium three.
- F-03** The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
- F-12** The result for this hydrocarbon range is primarily due to the presence of individual analyte peaks in the quantitation range. No fuel pattern detected.
- F-13** The chromatographic pattern does not resemble the fuel standard used for quantitation
- F-17** No fuel pattern detected. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
- H-06** This sample was received, or the analysis requested, outside the recommended holding time.
- ICV-02** Estimated Result. Initial Calibration Verification (ICV) failed low.
- Ja** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- PRES** Incomplete field preservation. Additional preservative was added to adjust the pH within the appropriate range for this analysis.
- PRO** Sample has undergone sample processing prior to extraction and analysis.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-17** RPD between original and duplicate sample is outside of established control limits.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-57** Compensation for background color and/or turbidity has been made by subtracting the absorbance of a second aliquot of sample to which all reagents except the color producing reagent have been added, in accordance with the method.
- R-03** Elevated Reporting Limits due to limited sample volume.
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- V-16** Sample aliquot was subsampled from the sample container in the laboratory. The subsampled aliquot was not preserved within 48 hours of sampling.
- V-21** Sample aliquot was subsampled from a sample container that had been previously opened and had sample removed for another analysis.

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

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503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115****REPORTING NOTES AND CONVENTIONS:****Abbreviations:**

DET	Analyte DETECTED at or above the detection or reporting limit.
ND	Analyte NOT DETECTED at or above the detection or reporting limit.
NR	Result Not Reported
RPD	Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.**" "** Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115****REPORTING NOTES AND CONVENTIONS (Cont.):****Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:**Mixed Matrix Samples:****Water Samples:**

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****AMENDED REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale****Report ID:****A2B0202 - 04 25 23 1115****LABORATORY ACCREDITATION INFORMATION****ORELAP Certification ID: OR100062 (Primary Accreditation)** -**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 00171.067Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

CHAIN OF CUSTODY

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Lab # A2B0202 coc 1 of 5

Company: <u>GSI</u>	Project Mgr: <u>JOSE SALE</u>	Project Name: <u>EATONVILLE</u>	Project #: <u>00171.067</u>
Address: <u>55 SW YAMHILL ST, PORTLAND</u>	Phone:	Email: <u>jale@gsi.com</u>	PO #
Sampled by: <u>BW & BS</u>			
Site Location: <u>OR WA CA</u>			
AK ID			
SAMPLE ID	DATE	TIME	MATRIX
HA-01-comp-0.5-1.0-0.222	2/1/22	1700	30
HA-01-comp-1.0-2.0-0.222	2/1/22	1705	
HA-02-comp-0.5-1.0-0.222	2/3/22	1600	
HA-03-comp-1.0-2.0-0.222	2/3/22	1604	
HA-102-comp-0.5-1.0-0.222	2/3/22	1610	
HA-103-comp-1.0-2.0-0.222	2/3/22	1611	
HA-03-comp-0.5-1.0-0.222	2/3/22	1616	
HA-03-comp-1.0-2.0-0.222	2/3/22	1633	
HA-04-comp-0.5-1.0-0.222	2/1/22	1630	
HA-04-comp-0.5-1.0-0.222	2/1/22	1640	
Standard Turn Around Time (TAT) = 10 Business Days			
TAT Requested (circle) 1 Day 2 Day 3 Day 5 Day Standard Other:			
SPECIAL INSTRUCTIONS: Please add "0.022" to Sample ID. (Not listed on pers.) Metals: As, Ba, Be, Cd, Cr (III and VI), Co, Cu, Pb, Ni, Se, Ti, V, Zn (Total for soils, Total + dissolved in water)			
RELINQUISHED BY: Signature: <u>[Signature]</u> Date: <u>2/1/22</u>		RECEIVED BY: Signature: <u>[Signature]</u> Date: <u>2/1/22</u>	
Printed Name: <u>BRANDON WATKINS</u> Time: <u>11:15</u>		Printed Name: <u>[Signature]</u> Time: <u>11:15</u>	
Company: <u>GSI WATER SOL.</u>		Company: <u>Apex Labs</u>	

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 00171.067Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

APEX LABS		CHAIN OF CUSTODY		Lab # <u>A2B0202</u> coc <u>2</u> of <u>5</u>	
Company: <u>GSI</u>	Project Mgr: <u>Josh Bale</u>	Project Name: <u>Eatonville</u>	Project #: <u>00171.067</u>		
Address: <u>55 SW Yamhill St, Portland</u>	Phone: _____	Email: <u>j.bale@gsiwater.com</u>	PO # _____		
Sampled by: <u>BW + GS</u>	ANALYSIS REQUEST				
Site Location: <u>OR</u> (WA) CA AK ID _____					
SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-CID
HA-01-comp-1.0-2.0-0222	2/1/22	1450	S6	3	✓
HA-05-comp-0.0-0.5-0222	2/1/22	1220	↓	↓	✓
HA-05-comp-0.5-1.0-0222	2/1/22	1235	↓	↓	✓
HA-05-comp-1.0-2.0-0222	2/1/22	1245	↓	↓	✓
HA-0A-0.0-0.5-0222	2/1/22	1225	↓	↓	✓
HA-0B-0.0-0.5-0222	2/1/22	1645	↓	↓	✓
HA-0C-0.0-0.5-0222	2/1/22	1500	↓	↓	✓
HA-0D-0.0-0.5-0222	2/1/22	1515	↓	↓	✓
HA-0E-0.0-0.5-0222	2/1/22	1535	↓	↓	✓
HA-02A-0.0-0.5-0222	2/1/22	1600	↓	↓	✓
SPECIAL INSTRUCTIONS: <u>(see page 1)</u>					
Standard Turn Around Time (TAT) = 10 Business Days					
TAT Requested (circle) <u>2 Day</u> 1 Day 3 Day 5 Day Standard Other: _____					
SAMPLES ARE HELD FOR 30 DAYS					
RELINQUISHED BY: <u>[Signature]</u>	Date: <u>2/1/22</u>	Signature: <u>[Signature]</u>	Date: <u>2/5/22</u>	Signature: _____	Date: _____
Printed Name: <u>PHILIP NERENBERG</u>	Time: <u>11:15</u>	Printed Name: <u>ANUSKUPA</u>	Time: <u>11:15</u>	Printed Name: _____	Time: _____
Company: <u>GSI WATER SOL.</u>		Company: <u>Apex Labs</u>		Company: _____	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 00171.067Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

APEX LABS		CHAIN OF CUSTODY		Lab # <u>A2B0202</u> coc <u>3</u> of <u>5</u>																	
Company: <u>GSI</u>		Project Mgr: <u>Josh Bale</u>		Project Name: <u>Eatonville</u>																	
Address: <u>55 SW YAMHILL ST. PORTLAND</u>		Phone: _____		Email: <u>jhbale@gsiws.com</u>																	
Sampled by: <u>6-18-10</u>		Project #: <u>0171.067</u>		PO # _____																	
Site Location: <u>OR WA CA</u>		ANALYSIS REQUEST		Frozen Archive																	
AK ID _____				Hold Sample																	
SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	AL, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, TL, V, Zn	(TOTAL) DISS. TCLP	TCLP Metals (8)	
HA-02B-00-0.5-0222	2/1/12	1515	SO	1																	
HA-03B-00-0.5-0222	2/1/12	1510																			
HA-03D-00-0.5-0222	2/1/12	1440																			
HA-03E-00-0.5-0222	2/1/12	1400																			
HA-03A-00-0.5-0222	2/1/12	1305																			
HA-03B-00-0.5-0222	2/1/12	1215																			
HA-03C-00-0.5-0222	2/1/12	1700																			
HA-03D-00-0.5-0222	2/1/12	1000																			
HA-03E-00-0.5-0222	2/1/12	925																			
HA-01-Comp-00-0.5-0222	2/1/12	1655		3																	
Standard Turn Around Time (TAT) = 10 Business Days		TAT Requested (circle)		1 Day	2 Day	3 Day	Standard	Other: _____	SPECIAL INSTRUCTIONS: <u>See page 1.</u>												
RELINQUISHED BY: <u>[Signature]</u>		RECEIVED BY: <u>[Signature]</u>		Date: <u>7/5/12</u>		Signature: _____		Date: _____		Signature: _____		Date: _____		Signature: _____		Date: _____		Signature: _____		Date: _____	
Printed Name: <u>Philip Nerenberg</u>		Printed Name: <u>Amber Kupa</u>		Time: <u>11:15</u>		Time: <u>11:15</u>		Time: _____		Time: _____		Time: _____		Time: _____		Time: _____		Time: _____		Time: _____	
Company: <u>GSI Water Sol.</u>		Company: <u>Apex Labs</u>		Company: _____		Company: _____		Company: _____		Company: _____		Company: _____		Company: _____		Company: _____		Company: _____		Company: _____	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: **OR100062**

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209Project: **Eatonville**

Project Number: 00171.067

Project Manager: **Josh Bale**

Report ID:

A2B0202 - 04 25 23 1115

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A280202 COC 4 of 5

Company: <u>GSE WATER SOL.</u>		Project Mgr: <u>Tosh Rule</u>		Project Name: <u>EATONVILLE</u>		Project #: <u>00171.067</u>																									
Address: <u>55 SW YAMHILL ST, PORTLAND</u>		Phone:		Email: <u>J566e@gsi-us.com</u>		PO #																									
Sampled by: <u>GSE JBR</u>																															
ANALYSIS REQUEST																															
Site Location: OR <input checked="" type="radio"/> WA <input type="radio"/> CA AK ID _____	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semt-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13) Al, Sb, As, Ba, Bi, Bz, Cd, Cr, Cu, Fe, Pb, Hg, Mn, Mo, Ni, K, Se, Ag, Na, Ti, V, Zn	TCLP Metals (8) TOTAL DISS. TCLP	Femic iron	Alkalinity	Sulfate	Nitrate	Nitrite	Methane	Ammonia	Cold Sample - TBC	Frozen Archive			
HA-02-comp-0.0-0.5-0222		2/14/22	1530	SO	3		<input checked="" type="checkbox"/>																								
HA-03-comp-0.0-0.5-0222		2/14/22	1535	SO	3		<input checked="" type="checkbox"/>																								
EB-01		2/14/22	1615	SW	4		<input checked="" type="checkbox"/>																								
EB-02		2/14/22	1730		14		<input checked="" type="checkbox"/>																								
PZ-01-0222		2/14/22	1735		14		<input checked="" type="checkbox"/>																								
PZ-02-0222		2/14/22	1640		14		<input checked="" type="checkbox"/>																								
PZ-102-0222		2/14/22	1650		14		<input checked="" type="checkbox"/>																								
PZ-03-0222		2/14/22	1515		14		<input checked="" type="checkbox"/>																								
PZ-04-0222		2/14/22	1205		14		<input checked="" type="checkbox"/>																								
PZ-05-0222		2/14/22	1345		14		<input checked="" type="checkbox"/>																								
Standard Turn Around Time (TAT) = 10 Business Days								SPECIAL INSTRUCTIONS: <u>reanalyze!</u>																							
TAT Requested (circle) 1 Day 2 Day 3 Day 5 Day Standard Other: _____																															
SAMPLES ARE HELD FOR 30 DAYS																															
RELINQUISHED BY: Signature: <u>[Signature]</u>		Date: <u>2/15/22</u>		RECEIVED BY: Signature: <u>[Signature]</u>		Date: <u>2/15/22</u>		RELINQUISHED BY: Signature: _____		Date: _____		RECEIVED BY: Signature: _____		Date: _____																	
Printed Name: <u>KRISTIAN WUNDERLICH</u>		Time: <u>11:15</u>		Printed Name: <u>APRIL GARDNER</u>		Time: <u>11:15</u>		Printed Name: _____		Time: _____		Printed Name: _____		Time: _____																	
Company: <u>GSE WATER SOL.</u>				Company: <u>Apex Labs</u>				Company: _____				Company: _____																			

Apex Laboratories

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Philip Neenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 00171.067Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

APEX LABS COOLER RECEIPT FORM

Client: GSIElement WO#: A2 B0202Project/Project #: Eatonville / #00171.067

Delivery Info:

Date/time received: 2/5/22 2/5/22 2/5/22 @ 1115 By: AKKDelivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 2/5/22 @ 1130 By: KAMChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>0.8</u>	<u>2.9</u>	<u>1.5</u>	<u>2.1</u>	<u>0.6</u>	<u>0.4</u>	<u>0.6</u>
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
Temp. blanks? (Y/N)	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
Ice type: (Gel/Real/Other)	<u>Real</u>	<u>Real</u>	<u>Real</u>	<u>Real</u>	<u>Real</u>	<u>Real</u>	<u>Real</u>
Condition:	<u>Good</u>	<u>Good</u>	<u>Good</u>	<u>Good</u>	<u>Good</u>	<u>Good</u>	<u>Good</u>

Cooler out of temp? (Y/N) Possible reason why: See form.Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 2/5/22 @ 1900 By: AKKAll samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☐ No ☒ Comments: All IDs missing - 0222 suffix.COC/container discrepancies form initiated? Yes ☒ No ☐Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: EB-01 60ml Cr6 Poly + HNO₃ Poly + 2 HCl Ambers provided.Do VOA vials have visible headspace? Yes ☐ No ☒ NA ☐

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments:

[Subsampled By: AKK
Witnessed By: EJ]Additional information: PZ-04 + SW-09 + SW-08 + SW-07 + SW-10 + SW-11 +SW-12 + SW-13 + SW-14 2/5/22 HNO₃ Poly marked as FF

Labeled by:

AKK

Witness:

EJ

Cooler Inspected by:

KAM

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

Page 176 of 177



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: EatonvilleProject Number: 00171.067Project Manager: Josh Bale

Report ID:

A2B0202 - 04 25 23 1115

APEX LABS COOLER RECEIPT FORM

Client: GSI Element WO#: A2 B0202Project/Project #: Eatonville / 00171.067

Delivery Info:

Date/time received: 2/5/22 @ 11:15 By: AKK AKKDelivered by: Apex Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 2/5/22 @ 11:30 By: KAMChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐ KAM 2/5/22

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>0.4</u>	<u>0.3</u>					
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>					
Temp. blanks? (Y/N)	<u>N</u>	<u>N</u>					
Ice type: (Gel/Real/Other)	<u>Real</u>	<u>Real</u>					
Condition:	<u>Good</u>	<u>Good</u>					

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes ☐ No ☒Out of temperature samples form initiated? Yes ☐ No ☒Sample Inspection: Date/time inspected: 2/5/22 @ 1900 By: AKKAll samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☐ No ☒ Comments: See page 1.COC/container discrepancies form initiated? Yes ☒ No ☐Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:Do VOA vials have visible headspace? Yes ☐ No ☒ NA ☐

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments:

Additional information:

Labeled by:

AKK

Witness:

EJ

Cooler Inspected by:

KAM

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



April 28, 2023

Apex Laboratories
ATTN: Philip Nerenberg
6700 S.W. Sandburg St.
Tigard, OR 97223



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
ASTM D1946, RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: A2B0202
Lab Number: N021001-01/15

Enclosed are REVISED results for sample(s) received 2/10/22 by Air Technology Laboratories and replaces in its entirety the report dated 2/24/2022. Sample was received intact and chilled to 3° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- The report has been revised to report to MDLs per client request.
- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson", followed by a small checkmark-like flourish.

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

SUBCONTRACT ORDER

Apex Laboratories

A2B0202

N021001a
Page 2 of 11

N021001-01/15

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Air Technology Laboratories, Inc
18501 E. Gale Ave Suite 130
City of Industry, CA 91748
Phone : (626) 964-4032
Fax: (626) 964-5832

Sample Name: PZ-01_0222 Water ID missing -0222 suffix.
Sampled: 02/04/22 12:35 (A2B0202-35)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/18/22 12:35	
Containers Supplied:			
(D)40 mL VOA - HCL			
(E)40 mL VOA - HCL			

Sample Name: PZ-02_0222 Water ID missing -0222 suffix.
Sampled: 02/04/22 16:40 (A2B0202-36)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/18/22 16:40	
Containers Supplied:			
(D)40 mL VOA - HCL			
(E)40 mL VOA - HCL			

Sample Name: PZ-102_0222 Water ID missing -0222 suffix.
Sampled: 02/03/22 16:50 (A2B0202-37)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/17/22 16:50	
Containers Supplied:			
(D)40 mL VOA - HCL			
(E)40 mL VOA - HCL			

Sample Name: PZ-03_0222 Water ID missing -0222 suffix.
Sampled: 02/03/22 15:15 (A2B0202-38)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/17/22 15:15	
Containers Supplied:			
(D)40 mL VOA - HCL			
(E)40 mL VOA - HCL			

Standard TAT

H. Scunggs / Apex

2/9/22

UPS (Shipper)

Released By	Date	Received By	Date
UPS (Shipper)	2/10/22	[Signature]	2/10/22
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Apex Laboratories

A2B0202

N021001a
Page 3 of 11

N021001-01/19

01/21/22

Sample Name: PZ-04_0222

Water

ID missing -0222 suffix. ID prefix on 2/2 125ml
Sampled: 02/03/22 12:05 (A2B0202-39)

Analysis

Due

Expires

Comments

RSK 175 Preserved (Meth, Eth, Eth) (Sub)

02/18/22 17:00

02/17/22 12:05

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Sample Name: PZ-05_0222

Water

ID missing -0222 suffix.
Sampled: 02/04/22 13:45 (A2B0202-40)

Analysis

Due

Expires

Comments

RSK 175 Preserved (Meth, Eth, Eth) (Sub)

02/18/22 17:00

02/18/22 13:45

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Sample Name: SW-09_0222

Water

ID missing -0222 suffix.
Sampled: 02/02/22 13:25 (A2B0202-41)

Analysis

Due

Expires

Comments

RSK 175 Preserved (Meth, Eth, Eth) (Sub)

02/18/22 17:00

02/16/22 13:25

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Sample Name: SW-109_0222

Water

ID missing -0222 suffix.
Sampled: 02/02/22 13:30 (A2B0202-42)

Analysis

Due

Expires

Comments

RSK 175 Preserved (Meth, Eth, Eth) (Sub)

02/18/22 17:00

02/16/22 13:30

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Sample Name: SW-07_0222

Water

ID missing -0222 suffix.
Sampled: 02/02/22 11:00 (A2B0202-43)

Analysis

Due

Expires

Comments

RSK 175 Preserved (Meth, Eth, Eth) (Sub)

02/18/22 17:00

02/16/22 11:00

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Standard TAT

H. Scroggs/Apex

Released By
UPS (Shipper)2/9/22
4/10/22

UPS (Shipper)

Received By
Date2/8/22
Date

30

1803

SUBCONTRACT ORDER

Apex Laboratories

A2B0202

N021001a
Page 4 of 11

N021001-01/15

AB 2/9/22

Sample Name: SW-08_0222

Water

ID missing -0222 suffix.
Sampled: 02/02/22 12:10

(A2B0202-44)

Analysis	Due	Expires	Comments
----------	-----	---------	----------

RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/16/22 12:10	
--	----------------	----------------	--

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Sample Name: SW-10_0222

Water

ID missing -0222 suffix.
Sampled: 02/02/22 14:22

(A2B0202-45)

Analysis	Due	Expires	Comments
----------	-----	---------	----------

RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/16/22 14:22	
--	----------------	----------------	--

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Sample Name: SW-11_0222

Water

ID missing -0222 suffix.
Sampled: 02/02/22 15:15

(A2B0202-46)

Analysis	Due	Expires	Comments
----------	-----	---------	----------

RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/16/22 15:15	
--	----------------	----------------	--

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Sample Name: SW-12_0222

Water

ID missing -0222 suffix.
Sampled: 02/02/22 16:00

(A2B0202-47)

Analysis	Due	Expires	Comments
----------	-----	---------	----------

RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/16/22 16:00	
--	----------------	----------------	--

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Sample Name: SW-13_0222

Water

ID missing -0222 suffix.
Sampled: 02/02/22 17:25

(A2B0202-48)

Analysis	Due	Expires	Comments
----------	-----	---------	----------

RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/16/22 17:25	
--	----------------	----------------	--

Containers Supplied:

(D)40 mL VOA - HCL

(E)40 mL VOA - HCL

Standard TAT

H. Smuggs / Apex

3°C

UPS (Shipper)

Released By

Date

Received By

Date

UPS (Shipper)

Released By

Date

Received By

Date

SUBCONTRACT ORDER

Apex Laboratories

A2B0202

N021001a
Page 5 of 11

AB 2/19/22

ID missing -0222 suffix.

Sample Name: SW-14_0222

Water

Sampled: 02/04/22 14:55

(A2B0202-49)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/18/22 14:55	
15 Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL			

Standard T4T

30

H. Scroggs / Apex

Hammale Scroggs 2/9/22

UPS (Shipper)

Released By	Date	Received By	Date
UPS (Shipper)	2/10/22	[Signature]	2/10/22
Released By	Date	Received By	Date
			1883

Client: Apex Laboratories
Attn: Philip Nerenberg
Project Name: NA
Project No.: A2B0202
Date Received: 02/10/22
Matrix: Water
Reporting Units: ug/L

RSK175												
Lab No.:	N021001-01			N021001-02			N021001-03			N021001-04		
Client Sample I.D.:	PZ-01_0222 (A2B0202-35)			PZ-02_0222 (A2B0202-36)			PZ-102_0222 (A2B0202-37)			PZ-03_0222 (A2B0202-38)		
Date/Time Sampled:	2/4/22 12:35			2/4/22 16:40			2/3/22 16:50			2/3/22 15:15		
Date/Time Analyzed:	2/17/22 10:56			2/17/22 11:07			2/16/22 15:25			2/16/22 15:37		
QC Batch No.:	220217GC8A2			220217GC8A2			220216GC8A1			220216GC8A1		
Analyst Initials:	CM			CM			CM			CM		
Dilution Factor:	1.0			1.0			1.0			1.0		
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L
Ethene	0.80 J	1.0	0.050	0.061 J	1.0	0.050	ND	1.0	0.050	ND	1.0	0.050
Ethane	1.5	1.0	0.057	0.069 J	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057
Methane	3.1	1.0	0.41	ND	1.0	0.41	ND	1.0	0.41	300	1.0	0.41

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
Operations Manager

Date 2/28/22


The cover letter is an integral part of this analytical report




Client: Apex Laboratories
Attn: Philip Nerenberg
Project Name: NA
Project No.: A2B0202
Date Received: 02/10/22
Matrix: Water
Reporting Units: ug/L

RSK175												
Lab No.:	N021001-05			N021001-06			N021001-07			N021001-08		
Client Sample I.D.:	PZ-04_0222 (A2B0202-39)			PZ-05_0222 (A2B0202-40)			SW-09_0222 (A2B0202-41)			SW-109_0222 (A2B0202-42)		
Date/Time Sampled:	2/3/22 12:05			2/4/22 13:45			2/2/22 13:25			2/2/22 13:30		
Date/Time Analyzed:	2/16/22 15:49			2/17/22 11:20			2/16/22 13:22			2/16/22 13:34		
QC Batch No.:	220216GC8A1			220217GC8A2			220216GC8A1			220216GC8A1		
Analyst Initials:	CM			CM			CM			CM		
Dilution Factor:	1.0			1.0			1.0			1.0		
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L
Ethene	ND	1.0	0.050	0.37 J	1.0	0.050	ND	1.0	0.050	ND	1.0	0.050
Ethane	ND	1.0	0.057	0.58 J	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057
Methane	24	1.0	0.41	0.97 J	1.0	0.41	ND	1.0	0.41	ND	1.0	0.41

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: 
Mark Johnson
Operations Manager

Date: 

The cover letter is an integral part of this analytical report.



Client: Apex Laboratories
Attn: Philip Nerenberg
Project Name: NA
Project No.: A2B0202
Date Received: 02/10/22
Matrix: Water
Reporting Units: ug/L

RSK175												
Lab No.:	N021001-09			N021001-10			N021001-11			N021001-12		
Client Sample I.D.:	SW-07_0222 (A2B0202-43)			SW-08_0222 (A2B0202-44)			SW-10_0222 (A2B0202-45)			SW-11_0222 (A2B0202-46)		
Date/Time Sampled:	2/2/22 11:00			2/2/22 12:10			2/2/22 14:22			2/2/22 15:15		
Date/Time Analyzed:	2/16/22 13:50			2/16/22 14:01			2/16/22 14:23			2/16/22 14:47		
QC Batch No.:	220216GC8A1			220216GC8A1			220216GC8A1			220216GC8A1		
Analyst Initials:	CM			CM			CM			CM		
Dilution Factor:	1.0			1.0			1.0			1.0		
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L
Ethene	ND	1.0	0.050	ND	1.0	0.050	ND	1.0	0.050	ND	1.0	0.050
Ethane	ND	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057
Methane	0.99 J	1.0	0.41	ND	1.0	0.41	0.71 J	1.0	0.41	0.51 J	1.0	0.41

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: _____

Mark Johnson
Operations Manager

Date: 4/28/23

The cover letter is an integral part of this analytical report

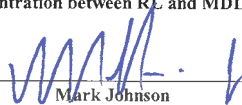


Client: Apex Laboratories
Attn: Philip Nerenberg
Project Name: NA
Project No.: A2B0202
Date Received: 02/10/22
Matrix: Water
Reporting Units: ug/L

RSK175											
Lab No.:	N021001-13			N021001-14			N021001-15				
Client Sample I.D.:	SW-12_0222 (A2B0202-47)			SW-13_0222 (A2B0202-48)			SW-14_0222 (A2B0202-49)				
Date/Time Sampled:	2/2/22 16:00			2/2/22 17:25			2/4/22 14:55				
Date/Time Analyzed:	2/16/22 15:02			2/16/22 15:14			2/17/22 11:32				
QC Batch No.:	220216GC8A1			220216GC8A1			220217GC8A2				
Analyst Initials:	CM			CM			CM				
Dilution Factor:	1.0			1.0			1.0				
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L		
Ethene	ND	1.0	0.050	ND	1.0	0.050	ND	1.0	0.050		
Ethane	ND	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057		
Methane	ND	1.0	0.41	ND	1.0	0.41	1.3	1.0	0.41		

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: _____


Mark Johnson
Operations Manager

Date _____



The cover letter is an integral part of this analytical report



QC Batch No: 220216GC8A1
Matrix: Water
Reporting Units: ug/L

RSK 175
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK				LCS		LCSD					
Date/Time Analyzed:	2/16/22 10:10				2/16/22 16:43		2/16/22 16:56					
Analyst Initials:	CM				CM		CM					
Dilution Factor:	1.0				1.0		1.0					
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	SPIKE AMT. ug/L	Result ug/L	% Rec.	Result ug/L	% Rec.	RPD %	Limits		
										Low %Rec	High %Rec	Max. RPD
Ethene	ND	1.0	0.050	1,150	1,100	96	1,080	94	1.5	70	130	30
Ethane	ND	1.0	0.057	1,200	1,190	97	1,160	95	2.8	70	130	30
Methane	ND	1.0	0.41	650	641	98	624	95	2.7	70	130	30

MDL = Method Detection Limit

ND= Not Detected (below MDL)

RL = Reporting Limit

J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
Operations Manager

Date 4/28/23

The cover letter is an integral part of this analytical report



QC Batch No: 220217GC8A2
Matrix: Water
Reporting Units: ug/L

RSK 175
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK				LCS		LCSD					
Date/Time Analyzed:	2/17/22 10:13				2/17/22 10:25		2/17/22 10:42					
Analyst Initials:	CM				CM		CM					
Dilution Factor:	1.0				1.0		1.0					
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	SPIKE AMT. ug/L	Result ug/L	% Rec.	Result ug/L	% Rec.	RPD %	Limits		
										Low %Rec	High %Rec	Max. RPD
Ethene	ND	1.0	0.050	1,150	1,360	119	1,160	101	16.1	70	130	30
Ethane	ND	1.0	0.057	1,200	1,340	109	1,260	102	6.0	70	130	30
Methane	ND	1.0	0.41	650	704	108	676	103	4.0	70	130	30

MDL = Method Detection Limit

ND= Not Detected (below MDL)

RL = Reporting Limit

J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
Operations Manager

Date: 4/28/23

The cover letter is an integral part of this analytical report



Data Validation Reports

Level 2 Data Validation Checks
Eatonville
Report 2109161

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	The laboratory case narrative noted the ICV and CCV met the method acceptance criteria.
Method blanks, trip blank, and field blanks	MBF	No trip blank or field blanks were collected or analyzed. The method blank had no detections except for: <ul style="list-style-type: none"> • BDE-47 • BDE-99 All detected results associated with the MBK were < RL and were qualified U due to being < 2X the MBK.
Surrogate/labeled compounds	MBF	Labeled standards were analyzed and within control limits.
LCS/LCSD	MBF	An LCS was analyzed, and results were within control limits.
MS/MSD	MBF	Matrix spikes were not performed.
Field duplicates	MBF	Primary Sample: SW06-0921 Duplicate Sample: SW1006-092 One field duplicate was collected. RPDs were within control limits.
Lab duplicates	MBF	Lab duplicates were not analyzed.
Dilution	MBF	No samples were diluted.
HRGC/HRMS		The lab reported EMPC results as non-detect. EMPC results were updated as detected and qualified as J+.

Overall Assessment

Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result (pg/L)	Qualifier Assigned	Reason for Qualification
-----------	---------	---------------	--------------------	--------------------------

SW04-0921	PBDE-100, PBDE-17, PBDE-183/176, PBDE-204, PBDE-207, PBDE-208	1.4, 0.511, 2.57, 2.82, 8 8.39	J	Below reporting limit
SW04-0921	PBDE-119/120, PBDE-139, PBDE-15, PBDE-153, PBDE-28/33	0.984, 0.864, 0.252, 1.26, 1.39	J+	EMPC
SW04-0921	PBDE-47	15.3	U	Below reporting limit, Method blank contamination – Result < 2X MB
SW04-0921	PBDE-99	4.18	U	EMPC, Method blank contamination – Result < MB
SW05-0921	PBDE-100, PBDE-128/154, PBDE-15, PBDE-17, PBDE-197, PBDE-28/33	1.13, 0.32, 0.714, 0.222, 2.21, 1.54	J+	EMPC
SW05-0921	PBDE-47	16.4	U	Below reporting limit, Method blank contamination – Results < 2X MB
SW05-0921	PBDE-99	4.93	U	EMPC, Method blank contamination – Result < MB
SW06-0921	PBDE-100, PBDE-128/154, PBDE-153, PBDE-17	1.31, 2.47, 5.93, 0.337	J	Below reporting limit
SW06-0921	PBDE-119/120, PBDE-138, PBDE-139, PBDE-183/176, PBDE-28/33	0.649, 0.38, 1.65, 2.67, 0.813	J+	EMPC
SW06-0921	PBDE-47, PBDE-99	15.1, 7.23	U	Below reporting limit, Method blank contamination - PBDE-47 > MB, PBDE-99 < MB
SW1006-0921	PBDE-100	0.978	J	Below reporting limit

SW1006-0921	PBDE-153, PBDE-17, PBDE-183/176, PBDE-28/33	1.13, 0.439, 2.17, 1.07	J+	EMPC
SW1006-0921	PBDE-47	15.8	J+	Below reporting limit, Method blank contamination – Result > MB
SW1006-0921	PBDE-99	3.1	U	EMPC, Method blank contamination – Result < MB

Level 2 Data Validation Checks
Eatonville
Report 2109344

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was not included in subcontract lab report, but case narrative stated the samples were received acceptable.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	<p>The lab didn't report ICV/CCV results outside the control limits except for:</p> <ul style="list-style-type: none"> • HA-1003-0921 < LCL. Results non-detect (UJ-) <ul style="list-style-type: none"> ○ Benzene ○ Ethylbenzene ○ M,p-Xylene ○ O-Xylene ○ Toluene
Method blanks, trip blank, and field blanks	MBF	<p>Method blanks were run per batch. There were no detections. Two equipment blanks were collected. There were no detections except for:</p> <ul style="list-style-type: none"> • EB01-0921 <ul style="list-style-type: none"> ○ Volatile Petroleum Hydrocarbons, >C10-C12 Aliphatics ○ Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics • EB02-0921 <ul style="list-style-type: none"> ○ Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics <p>Results that were detected and less than the EB result were qualified non-detect. Results that were > EB result, but less than 5x EB result were qualified J+</p> <p>Detected results qualified non-detect:</p> <ul style="list-style-type: none"> • Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics <ul style="list-style-type: none"> ○ SW06-0921 ○ SW1006-0921
Surrogate/labeled compounds	MBF	Surrogates were analyzed and results were within control limits.
LCS/LCSD	MBF	LCS/LCSD were analyzed, and results were within

Quality Control Check	Checked By	Comment
		<p>control limits except for:</p> <ul style="list-style-type: none"> Batch 33794 <ul style="list-style-type: none"> Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics Batch 33813 <ul style="list-style-type: none"> Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics <p>Non-detect results were qualified UJ- where the LCS < LCL. When one of the LCS/LCSD was within control limits and the other was not, results were qualified without direction bias (J/UJ).</p>
MS/MSD	MBF	<p>Matrix spikes were performed, and results were within control limits except for:</p> <ul style="list-style-type: none"> DU-01-0921-After Processing <ul style="list-style-type: none"> Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics DU-01-0921-As Received <ul style="list-style-type: none"> Volatile Petroleum Hydrocarbons, >C6-C8 Aliphatics <p>Non-detect results were qualified UJ- where the MS/MSD < LCL. When one of the MS/MSD was within control limits and the other was not, results were qualified without direction bias (J/UJ).</p>
Field duplicates	MBF	<p>Primary Sample: HA-03-0921 Duplicate Sample: HA-1003-0921</p> <p>Primary Sample: SW06-0921 Duplicate Sample: SW1006-0921</p> <p>Two field duplicate samples were collected. RPDs were within control limits except:</p> <ul style="list-style-type: none"> HA-03-0921/ HA-1003-0921 <ul style="list-style-type: none"> Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics Extractable Petroleum Hydrocarbons, >C21-C34 Aromatics Volatile Petroleum Hydrocarbons, >C10-C12 Aliphatics Volatile Petroleum Hydrocarbons, >C12-C13 Aromatics

Quality Control Check	Checked By	Comment
		○ Volatile Petroleum Hydrocarbons, >C6-C8 Aliphatics
Lab duplicates	MBF	Lab duplicates were not analyzed.
Dilution	MBF	No samples were diluted.
Overall Assessment		Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
DU-01-0921-After Processing	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	9.04 mg/kg, 9.04 mg/kg	UJ-	LCS < LCL, MS < LCL
DU-01-0921-After Processing	Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	17 mg/kg	J	MSD < LCL, MS in Control Limits
DU-01-0921-As Received	Volatile Petroleum Hydrocarbons, >C6-C8 Aliphatics	3.34 mg/kg	J-	MS < LCL
DU-02-0921-After Processing	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	9.99 mg/kg, 9.99 mg/kg	UJ-	LCS < LCL
EB01-0921, EB02-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics,	39.4 ug/L	UJ	LCS < LCL, LCS/LCSD RPD > RPD Limit
EB01-0921, EB02-0921	Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics	39.4 ug/L	UJ	LCSD < LCL, LCS in control limits
EB01-0921, EB02-0921	Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	78.7 ug/L	UJ	LCS/LCSD RPD > RPD Limit

HA-01-0921, HA-02-0921, HA-03-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	21.3 mg/kg, 21.3 mg/kg	UJ-	LCS < LCL
HA-03-0921	Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aromatics, Volatile Petroleum Hydrocarbons, >C10-C12 Aliphatics, Volatile Petroleum Hydrocarbons, >C12-C13 Aromatics, Volatile Petroleum Hydrocarbons, >C6-C8 Aliphatics	23.2 mg/kg, 107 mg/kg, 2.16 mg/kg, 2.16 mg/kg, 7.97 mg/kg	UJ, J, UJ, UJ, J	FD RPD > RPD Limit
HA-1003-0921	Benzene, Ethylbenzene, m,p-Xylene, o-Xylene, Toluene	4.3 mg/kg, 12.2 mg/kg, 7.17 mg/kg, 3.58 mg/kg, 3.58 mg/kg	UJ-	CCV < LCL
HA-1003-0921	Volatile Petroleum Hydrocarbons, >C10-C12 Aliphatics	16.5 mg/kg	J	FD RPD > RPD Limit
HA-1003-0921	Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aromatics, Volatile Petroleum Hydrocarbons, >C12-C13 Aromatics, Volatile Petroleum Hydrocarbons, >C6-C8 Aliphatics	291 mg/kg, 263 mg/kg, 13.3 mg/kg, 72.9 mg/kg	J	FD RPD > RPD Limit
HA-1003-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	29.6 mg/kg, 29.6 mg/kg	UJ-	LCS < LCL

SB18-9-10-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	10.8 mg/kg, 10.8 mg/kg	UJ-	LCS < LCL
SW04-0921	Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	62.4 ug/L	J+	EB contamination, EB < Sample Result
SW04-0921, SW05-0921, SW06-0921, SW1006-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics	39.7 ug/L 39.6 ug/L, 39.8 ug/L	UJ	LCS < LCL, LCS/LCSD RPD > RPD Limit
SW04-0921, SW05-0921, SW06-0921, SW1006-0921	Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics	39.7 ug/L 39.6 ug/L, 39.8 ug/L	UJ	LCSD < LCL, LCS in control limits
SW04-0921, SW05-0921, SW06-0921	Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	79.4 ug/L, 79.3 ug/L, 79.6 ug/L	UJ	LCS/LCSD RPD > RPD Limit
SW05-0921	Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	60.5 ug/L	J+	EB contamination, EB < Sample Result
SW06-0921	Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	49.5 ug/L	U	EB > Sample Result
SW1006-0921	Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	41.9 ug/L	U	EB > Sample Result
SW1006-0921	Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	116	J	LCS/LCSD RPD > RPD Limit

Level 2 Data Validation Checks
Eatonville
Report 2111482

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	All holding times were within the allowable time period.
Preservation	MBF	Preservation is acceptable.
COC Documentation	MBF	COC was not included with sub-contract work order, but the sample log-in check list was complete.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	The calibration verification associated with GW-Trip-Blank-1121 for Naphthalene was recovered low.
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch for metals. There were no detections. An equipment blank and trip blank were analyzed and both were detected for Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics. All sample results were qualified U as the trip blank result was > all other results.
Surrogate compounds	MBF	1-Chlorooctadecane was recovered low. Associated Aliphatic analytes qualified J-/UJ-.
LCS/LCSD	MBF	Aliphatic Hydrocarbon (C10-C12) & (C21-C34) LCS recovered low results qualified J-/UJ-. Aliphatic Hydrocarbon (C12-C16) was recovered low, but a duplicate analysis was performed and recovered within range, samples not qualified.
MS/MSD	MBF	The MS (GW-PZ-03-1121) was below the acceptable limits for EPH C10-C12, C12-C16, C16-C21 for Aromatics and C10-C12, C12-C16, and C21-C34 for Aliphatic. Results qualified J-/UJ-.
Field duplicates	MBF	FD (GW-Dup-1-1121) and the primary sample (GW-PZ-02-1121) both had all ND results or results qualified non-detect due to trip blank contamination.
Lab duplicates	MBF	Lab duplicates were not run. LCS/LCSD was run instead.
Dilution	MBF	No samples were diluted.
Overall Assessment		Qualifier codes added to results; table and notes below.

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
GW-Dup-1-1121	Extractable Petroleum Hydrocarbons, >C12-C16 Aliphatics, Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics, Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	9.81, 14.2, 39.5	UJ-	SUR < LCL
GW-Dup-1-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.6, 22.5	UJ-	SUR < LCL, LCL < LCL
GW-Dup-1-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	12.7	U	Trip blank contamination, Result < TB
GW-Equipment-Blank-1121	Extractable Petroleum Hydrocarbons, >C21-C34 Aromatics, Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	27.9, 24.4	J	Below reporting limit
GW-Equipment-Blank-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.6, 22.6	UJ-	LCS < LCL
GW-Equipment-Blank-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	12.9	U	Trip blank contamination, Result < TB
GW-PZ-01-1121	Extractable Petroleum Hydrocarbons, >C16-C21 Aromatics	17	J	Below reporting limit
GW-PZ-01-1121	Extractable Petroleum Hydrocarbons, >C12-C16 Aliphatics, Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics, Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	9.84, 14.3, 39.6	UJ-	SUR < LCL

GW-PZ-01-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.6, 22.6	UJ-	SUR < LCL, LCL < LCL
GW-PZ-01-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	14	U	Trip blank contamination, Result > TB < 2X TB
GW-PZ-02-1121	Extractable Petroleum Hydrocarbons, >C12-C16 Aliphatics, Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics, Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	9.78, 14.2, 39.3	UJ-	SUR < LCL
GW-PZ-02-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.5, 22.4	UJ-	SUR < LCL, LCL < LCL
GW-PZ-02-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	13.5	U	Trip blank contamination, Result < TB
GW-PZ-03-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics, Extractable Petroleum Hydrocarbons, >C12-C16 Aromatics, Extractable Petroleum Hydrocarbons, >C16-C21 Aromatics	8.9, 6.98, 168	UJ-, UJ-, J-	MS < LCL
GW-PZ-03-1121	Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics, Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	14.3, 39.6	UJ-	SUR < LCL
GW-PZ-03-1121	Extractable Petroleum Hydrocarbons, >C12-C16 Aliphatics	9.85	UJ-	SUR < LCL, MS < LCL
GW-PZ-03-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.7, 22.6	UJ-	SUR < LCL, MS < LCL, LCS < LCL

GW-PZ-03-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	12.7	U	Trip blank contamination, Result < TB
GW-PZ-04-1121	Extractable Petroleum Hydrocarbons, >C8-C10 Aromatics	27.4	J	Below reporting limit
GW-PZ-04-1121	Extractable Petroleum Hydrocarbons, >C12-C16 Aliphatics, Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics, Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	9.82, 14.2, 39.5	UJ-	SUR < LCL
GW-PZ-04-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.6, 22.5	UJ-	SUR < LCL, LCL < LCL
GW-PZ-04-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	12.4	U	Trip blank contamination, Result < TB
GW-Trip-Blank-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	13.9	J	Below reporting limit
GW-Trip-Blank-1121	Naphthalene	19.6	UJ-	ICV < LCL

Level 2 Data Validation Checks
Eatonville
Report 2202107

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report. PZ-04-0222 sample date was 2/3/22 on the COC and 2/4/22 on the sample bottle. Lab used the 2/3 sample date. It was also noted the bottles do not have the _0222 suffix and the lab added to the edd/report.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	The laboratory case narrative noted the ICV and CCV met the method acceptance criteria.
Method blanks, trip blank, and field blanks	MBF	An equipment blank was not collected. The method blank had no detections except for: <ul style="list-style-type: none"> • PBDE-47 • PBDE-100 • PBDE-183/176 PZ-01_0222, SW07_0222, SW12_0222, SW13_0222, and SW14_0222 had EMPC or below detection limit results that were qualified U due to method blank contamination.
Surrogate/labeled compounds	MBF	Labeled standards were analyzed and within control limits except for sample SW14_0222: <ul style="list-style-type: none"> • 13C-BDE-183 PBDE-183/176 EMPC qualified for labeled standard > UCL
LCS/LCSD	MBF	LCS/LCSD were analyzed, and results were within control limits.
MS/MSD	MBF	Matrix spikes were not performed.
Field duplicates	MBF	Primary Sample: PZ-02_0222 Duplicate Sample: PZ-102_0222 Primary Sample: SW09_0222 Duplicate Sample: SW109_0222 Two field duplicates were collected. RPDs were within control limits except for samples PZ-02_0222 and PZ-102_0222: <ul style="list-style-type: none"> • PBDE-99

Quality Control Check	Checked By	Comment
		<ul style="list-style-type: none"> • PBDE-100
Lab duplicates	MBF	Lab duplicates were not analyzed.
Dilution	MBF	No samples were diluted.
HRGC/HRMS		The lab reported EMPC results as non-detect. EMPC results were updated as detected and qualified as J+.
Overall Assessment		Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result (pg/L)	Qualifier Assigned	Reason for Qualification
PZ-01_0222	PBDE-128/154, PBDE-139, PBDE-153, PBDE-197, PBDE-204, PBDE-206, PBDE-28/33, PBDE-99	2.73, 1.6, 4.35, 5.89, 16.7, 44, 1.29, 17.2	J	Below reporting limit
PZ-01_0222	PBDE-207, PBDE-208	33.4, 24.2	J+	EMPC
PZ-01_0222	PBDE-100, PBDE-47	3.9, 22.1	J	Below reporting limit, Method blank contamination – Result > 2x MB
PZ-01_0222	PBDE-183/176	2.1	U	EMPC, Method blank contamination – Result < MB
PZ-02_0222	PBDE-128/154, PBDE-140, PBDE-153, PBDE-17, PBDE-184, PBDE-49, PBDE-66, PBDE-75/51	103, 4.66, 95.1, 1.8, 1.15, 12.7, 11, 4.33	J	Below reporting limit

PZ-02_0222	PBDE-138, PBDE-139, PBDE-155, PBDE-204, PBDE-28/33	11.5, 13.9, 4.64, 41.6, 6.23	J+	EMPC
PZ-02_0222	PBDE-99	1080	J	Field duplicate RPD > RPD Limit
PZ-02_0222	PBDE-85	55.5	J	Below reporting limit
PZ-02_0222	PBDE-183/176	4.34	J+	EMPC, Method blank contamination – Result > MB
PZ-02_0222	PBDE-100	233	J	Field Duplicate RPD > RPD Limit
PZ-03_0222	PBDE-99	10.4	J	Below reporting limit
PZ-03_0222	PBDE-128/154, PBDE-17, PBDE-197, PBDE-204, PBDE-207, PBDE-28/33	1.34, 0.225, 3.52, 10.2, 7.19, 0.696	J+	EMPC
PZ-03_0222	PBDE-100, PBDE-47	2.27, 13.3	J+	Below reporting limit, Method blank contamination – Result < 3x MB
PZ-03_0222	PBDE-183/176	2.49	J+	EMPC, Method blank contamination – Result < 3x MB
PZ-04_0222	PBDE-99	11.9	J	Below reporting limit
PZ-04_0222	PBDE-128/154, PBDE-139, PBDE-153, PBDE-197, PBDE-204, PBDE-207, PBDE-208, PBDE-28/33	1.67, 1.19, 1.69, 5.59, 22.8, 19, 10.4, 1.24	J+	EMPC

PZ-04_0222	PBDE-47	18.5	J	Below reporting limit
PZ-04_0222	PBDE-100, PBDE-183/176	2.3, 2.52	J+	EMPC, Method blank contamination – Result > MB
PZ-05_0222	PBDE-153, PBDE-28/33, PBDE-99	2.83, 0.729, 10.6	J	Below reporting limit
PZ-05_0222	PBDE-139, PBDE-197, PBDE-204	1.27, 4.59, 17	J+	EMPC
PZ-05_0222	PBDE-100, PBDE-183/176	2.62, 2.99	J, J+	Below reporting limit, Method blank contamination – PBDE-100 < 3x MB, PBDE-183/176 < 3X MB
PZ-05_0222	PBDE-47	14.7	J	Below reporting limit
PZ-102_0222	PBDE-153, PBDE-204, PBDE-28/33	2.82, 20.8, 1.3	J	Below reporting limit
PZ-102_0222	PBDE-99	14.7	J	Below reporting limit, Field duplicate RPD > RPD Limit
PZ-102_0222	PBDE-197, PBDE-49	8.91, 0.693	J+	EMPC
PZ-102_0222	PBDE-47	25.3	J	Below reporting limit
PZ-102_0222	PBDE-183/176	3.81	J+	EMPC, Method blank contamination – Result < 3X MB
PZ-102_0222	PBDE-100	2.83	J+	EMPC, Field duplicate RPD > RPD Limit
SW07_0222	PBDE-155, PBDE-17, PBDE-207	0.384, 0.319, 8.14	J	Below reporting limit

SW07_0222	PBDE-128/154, PBDE-139, PBDE-153, PBDE-28/33, PBDE-99	0.632, 0.98, 1.09, 0.531, 4.46	J+	EMPC
SW07_0222	PBDE-47	7.28	J+	Below reporting limit, Method blank contamination – Result > MB
SW07_0222	PBDE-100, PBDE-183/176	0.974, 2.2	J+, U	EMPC, Method blank contamination – PBDE-100 > MB, PBDE-183/176 < MB
SW08_0222	PBDE-99	2.03	J	Below reporting limit
SW08_0222	PBDE-139, PBDE-207, PBDE-28/33, PBDE-77	0.984, 6.25, 0.567, 0.149	J+	EMPC
SW08_0222	PBDE-47	7.36	J+	Below reporting limit, Method blank contamination – Result > MB
SW08_0222	PBDE-100	1.18	J+	EMPC, Method blank contamination – Result > MB
SW09_0222	PBDE-139, PBDE-153, PBDE-207, PBDE-28/33, PBDE-99	1.36, 1.92, 6.52, 0.62, 5.52	J+	EMPC
SW09_0222	PBDE-100, PBDE-183/176, PBDE-47	1.41, 2.35, 7.54	J+	Below reporting limit, Method blank contamination – Result > MB
SW10_0222	PBDE-28/33	0.673	J	Below reporting limit
SW10_0222	PBDE-128/154, PBDE-153, PBDE-197, PBDE-204, PBDE-207, PBDE-208, PBDE-99	0.813, 2.07, 1.21, 2.21, 4.36, 3.33, 6.65	J+	EMPC
SW10_0222	PBDE-100, PBDE-47	1.5, 9.3	J+	Below reporting limit, Method blank contamination – Result > MB

SW10_0222	PBDE-183/176	2.72	J+	EMPC, Method blank contamination – Result > MB
SW109_0222	PBDE-153, PBDE-208	1.42, 5.35	J	Below reporting limit
SW109_0222	PBDE-119/120, PBDE-139, PBDE-17, PBDE-197, PBDE-204, PBDE-28/33, PBDE-99	0.796, 1.26, 0.333, 1.13, 1.48, 1.1, 4.69	J+	EMPC
SW109_0222	PBDE-183/176, PBDE-47	2.47, 11.8	J+, J+	Below reporting limit, Method blank contamination – PBDE-183/176 Result > MB, PBDE-47 Result < 3x MB
SW109_0222	PBDE-100	1.27	J+	EMPC, Method blank contamination – Result > MB
SW11_0222	PBDE-207, PBDE-99	8, 7.99	J	Below reporting limit
SW11_0222	PBDE-128/154, PBDE-139, PBDE-153, PBDE-28/33, PBDE-77	1.09, 0.731, 1.27, 0.41, 0.211	J+	EMPC
SW11_0222	PBDE-100, PBDE-47	1.86, 11.9	J+	Below reporting limit, Method blank contamination – Result > MB
SW11_0222	PBDE-183/176	2.81	J+	EMPC, Method blank contamination – Result > MB
SW12_0222	PBDE-99	3.94	J	Below reporting limit
SW12_0222	PBDE-139, PBDE-153, PBDE-190/171, PBDE-28/33	1.07, 1.13, 0.878, 0.455	J+	EMPC
SW12_0222	PBDE-47	6.17	J+	Below reporting limit, Method blank contamination – Result > MB

SW12_0222	PBDE-100, PBDE-183/176	0.985, 1.83	J+, U	EMPC, Method blank contamination – PBDE-100 Result > MB, PBDE-183/176 < MB
SW13_0222	PBDE-139, PBDE-99	0.837, 2.84	J	Below reporting limit
SW13_0222	PBDE-119/120, PBDE-153, PBDE-204, PBDE-28/33, PBDE-49, PBDE-77	0.726, 0.776, 2.53, 0.342, 0.251, 0.158	J+	EMPC
SW13_0222	PBDE-183/176, PBDE-47	2.08, 7.53	U, J+	Below reporting limit, Method blank contamination – PBDE-183/176 Result < MB, PBDE-47 Result > MB
SW13_0222	PBDE-100	0.543	U	EMPC, Method blank contamination – Result < MB
SW14_0222	PBDE-139, PBDE-28/33, PBDE-99	1.89, 0.984, 3.45	J	Below reporting limit
SW14_0222	PBDE-119/120, PBDE-153, PBDE-17, PBDE-207	1.13, 1.17, 0.304, 4.31	J+	EMPC
SW14_0222	PBDE-47	8.13	J+	Below reporting limit, Method blank contamination – Result > MB
SW14_0222	PBDE-100	1	J+	EMPC, Method blank contamination – Result > MB
SW14_0222	PBDE-183/176	1.52	U	EMPC, Method blank contamination – result < MB, Labeled standard > UCL

Level 2 Data Validation Checks
Eatonville
Report A1A0458

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report. SE01-0121 all containers except 1L ambers read time of 1300, SE02-0121 no date or time on HNO3 ploy bottle. Four trip blanks were received but not listed on the COC.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	The lab noted multiple Daily CCV/LCS and CCV values did not meet control limits for QC samples, but since this data is not reviewed during level 2 validation, results were not qualified based on this.
Method blanks, trip blank, and field blanks	MBF	Method blanks were run per batch. There were no detections.
Surrogate/labeled compounds	MBF	<p>Surrogates were analyzed and results were within control limits except for GW01-0121 8270E:</p> <ul style="list-style-type: none"> • Nitrobenzene-d5 • 2-Fluorobiphenyl <p>Both surrogates were in the neutral/base fraction. No sample results were detected, so neutral/base fraction results were qualified UJ-.</p>
LCS/LCSD	MBF	<p>LCS/LCSD were analyzed, and results were within control limits except for batch 1012821 by 8260D:</p> <ul style="list-style-type: none"> • Chloromethane < LCL <p>Results were ND and qualified UJ-.</p> <p>Where LCS/LCSD were analyzed and the RPD > RPD limit. Non-detected results were not qualified since both LCS and LCSD were within their respective control limits.</p>
MS/MSD	MBF	Matrix spikes were performed, and results were within control limits.
Field duplicates	MBF	<p>Primary Sample: SE01-0121 Duplicate Sample: SE101-0121</p> <p>One field duplicate sample was collected. RPDs were within control limits except:</p> <ul style="list-style-type: none"> • Lead (total)
Lab duplicates	MBF	Lab duplicates were analyzed, and results were within control limits.

Quality Control Check	Checked By	Comment
Dilution	MBF	The following samples were diluted: <ul style="list-style-type: none"> Method 353.2 <ul style="list-style-type: none"> GW01-0121 SE02-0121 SW01-0121
Overall Assessment		Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
GW01-0121	3,3'-Dichlorobenzidine	0.971 ug/L	UJ-	2 Fraction Surrogates < LCL, Reporting limit raised due to known erratic recoveries
GW01-0121	8270E Neutral/Base Fraction	ND	UJ-	2 Fraction Surrogates < LCL
GW01-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
GW01-0121	Copper (D), Nickel (D), Vanadium (D)	1.58 ug/l, 1.81 ug/l, 1.51 ug/l	J	Below reporting limit
SE01-0121	3,3'-Dichlorobenzidine	0.971 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SE01-0121	Lead (T)	1.55 ug/L	J	Field duplicate RPD > RPD Limit
SE01-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SE01-0121	Benzyl alcohol, Cadmium (T), Copper (D)	0.106 ug/l, 0.128 ug/l, 1.65 ug/lg	J	Below reporting limit
SE02-0121	3,3'-Dichlorobenzidine	0.962 ug/L	UJ	Reporting limit raised due to known erratic recoveries

SE02-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SE02-0121	Antimony (T), Cadmium (T), Cadmium (D), Cobalt (T), Copper (D), Lead (D), Nickel (T)	0.575, 0.159, 0.103, 0.624, 1.94, 0.182, 1.61 ug/l	J	Below reporting limit
SE101-0121	3,3'-Dichlorobenzidine	0.99 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SE101-0121	Lead (T)	3.27 ug/L	J	Field duplicate RPD > RPD Limit
SE101-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SE101-0121	Cadmium (T), Copper (D)	0.128 ug/l, 1.66 ug/l	J	Below reporting limit
SW01-0121	3,3'-Dichlorobenzidine	1.04 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SW01-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SW01-0121	Copper (D), Vanadium (D)	1.7 ug/l, 1.91 ug/l	J	Below reporting limit
SW02-0121	3,3'-Dichlorobenzidine	1 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SW02-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SW02-0121	Lead (D), Vanadium (T)	0.103 ug/l, 1.03 ug/l	J	Below reporting limit

SW03-0121	3,3'-Dichlorobenzidine	0.962 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SW03-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SW03-0121	Vanadium (T), Vanadium (D)	1.02 ug/l, 1.14 ug/l	J	Below reporting limit

Level 2 Data Validation Checks
Eatonville
Report A1K0754

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	Not independently verified during stage 2/a validation.
Method blanks, trip blank, and field blanks	MBF	Method blanks were run per batch. There were no detections.
Surrogate/labeled compounds	MBF	Surrogates were not analyzed or required per the method.
LCS/LCSD	MBF	An LCS analyzed, and results were within control limits.
MS/MSD	MBF	Matrix spikes were not performed on SDG samples and were not used for qualification.
Field duplicates	MBF	Field duplicates were not collected or analyzed.
Lab duplicates	MBF	Lab duplicates were analyzed, and results were within control limits.
Dilution	MBF	The sample was diluted for E6020B analysis.
Overall Assessment		No data was qualified.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
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Level 2 Data Validation Checks
Eatonville
Report A1K0892

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	All holding times were within the allowable time period.
Preservation	MBF	Preservation is acceptable.
COC Documentation	MBF	COC was included and complete.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	See "Surrogate compounds"
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch with no anomalies.
Surrogate compounds	MBF	2,4,6-Tribromophenol surrogate was recovered within range, but the lab noted the CCV was above the upper control limit and the results are likely biased high. No results were qualified.
LCS/LCSD	MBF	All LCS and LCSD samples were recovered within range and with RPD.
MS/MSD	MBF	All MS were recovered within acceptable range.
Field duplicates	MBF	FD samples had an acceptable RPD.
Lab duplicates	MBF	Lab duplicates were within the acceptable RPD.
Dilution	MBF	No samples were diluted.
Overall Assessment		Qualifier codes added to results; table and notes below.

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result (ug/l)	Qualifier Assigned	Reason for Qualification
GW-Dup-1-1121	Copper (D), Lead (D), Vanadium (D)	1.06, 0.135, 1.42	J	Below reporting limit
GW-PZ-01-1121	Beryllium (D), Chromium (D), Nickel (D), Zinc (D)	0.113, 1.25, 1.9, 3.92	J	Below reporting limit

GW-PZ-02-1121	Beryllium (T), Vanadium (D)	0.102, 1.34	J	Below reporting limit
GW-PZ-03-1121	Arsenic (D), Arsenic (T), Cobalt (T), Lead (D) Vanadium (D), Vanadium (T)	0.591, 0.602, 0.541, 0.166, 1.18, 1.12	J	Below reporting limit
GW-PZ-04-1121	Chromium (T), Cobalt (D), Nickel (T)	1.4, 0.81, 1.42	J	Below reporting limit
GW-PZ-05-1121	Arsenic (T), Chromium (T), Cobalt (D), Nickel (D), Vanadium (T)	0.609, 1.07, 0.862, 1.95, 1.98	J	Below reporting limit

Level 2 Data Validation Checks
Eatonville
Report A110619

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Package is complete and no data was rejected.
Holding times	MBF	HA-01-0921, HA-02-0921, HA-03-0921, HA-1003-0921, DU-01-0921---As Received, DU-02-0921---As Received were all exceeded holding times for VOC analysis and were given a J qualifier. DU-01-0921---After Processing and DU-02-0921---After Processing both exceeded holding times for Chromium, Hexavalent and Total Organic Carbon and were qualified as estimated. DU-01-0921---After Processing and DU-02-0921---After Processing were extracted for SVOC analysis after the recommended holding time requirements (greater than 2x the limit). Due to this, the non-detect results were qualified UJ and detected results were given a J qualifier.
Preservation	MBF	Preservation is acceptable. See “blanks” section for trip blank violation.
COC Documentation	MBF	Receipt form noted the bottles received didn’t match the listed number of bottles on the COC.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	Some QC samples noted issues with ICV/CCVs, but sample results were unaffected by this.
Method blanks, trip blank, and field blanks	MBF	Trip Blank VOA vials had visible headspace. All trip blank results qualified as estimated.
Surrogate compounds	MBF	All surrogates were within acceptable range. Due to dilution, lab noted surrogate recoveries for DU-01-0921---After Processing, DU-02-0921---After Processing, and SB18-9-10-0921 were reported as estimated. No qualification since results were within limits.
LCS/LCSD	MBF	Batch 1090906 4-nitroaniline LCS was below the lower limit, but the LCSD was above the limit. The LCS/LCSD RPD was within limits, so associated data not qualified. Batch 1091097 Dichlorodifluoromethane LCS was below the LCL. Associated data was qualified as estimated. Non-detect results were not qualified when LCS was greater than the UCL.
MS/MSD	MBF	Batch 1090991 Hexavalent Chromium MS1 and MS2 (Sample HA-01-0921) had % recoveries of 0% and 2%. Significantly below the 75% lower limit. The Post Spike had a recovery of 99%.

Quality Control Check	Checked By	Comment
		indication there was a matrix interference and not an instrumentation capabilities issue. Batch 21K0136 MS1 (DU-01-0921---After Processing) was low at 60%, but MS2 was 99%. Only the samples the matrix spike was performed on were qualified.
Field duplicates	MBF	HA-03-0921 and HA-1003-0921 duplicate had an RPD of 54.7% for Zinc which is greater than the 50% limit set in the QAPP. Zinc results for these two samples were qualified due to precision error.
Lab duplicates	MBF	HA-01-0921 Lab duplicate for PCBs (Aroclor 1254) was outside the 30% RPD limit (36%). Results not qualified because results were within 5x the RL. Phenanthrene results for HA-01-0921 had duplicate results which were > ABS(original – duplicate), results given J qualifier. HA-01-0921 results for TOC had a dup RPD > RPD limit. Qualified J.
Dilution	MBF	HA-01-0921, HA-02-0921, HA-03-0921, HA-1003-0921, and SB18-9-10-0921, DU-01/DU-02 Before/After Processing had dilutions.

Overall Assessment

Qualifier codes added to results; table and notes below.

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
SB18-9-10-0921	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1254, Aroclor-1260	ND	UJ	Interference from coeluting organic compounds
HA-03-0921, HA-1003-0921	bis(2-Chloroethyl)ether	ND	J	Interference from coeluting organic compounds
HA-03-0921, HA-1003-0921	Zinc	400 mg/kg, 701 mg/kg	J	Field duplicate RPD was greater than 50%
DU-02-0921---As Received, SB18-9-10-0921	Dichlorodifluoromethane	ND	UJ-	LCS < LCL
EB01-0921, EB02-0921, SW04-0921, SW05-0921, SW06-0921, SW1006-0921	4-Chloroaniline, 3-Nitroaniline	ND	UJ	LCS/LCSD RPD > RPD Limit

EB01-0921, EB02-0921, SW04-0921, SW05-0921, SW06-0921, SW1006-0921	3,3'-Dichlorobenzidine	ND	UJ	LCS/LCSD RPD > RPD Limit, Erratic QC Recoveries as stated by the lab
HA-01-0921	Phenanthrene	0.397 mg/kg	J	Result was ND in original sample. In the duplicate, the result was greater than the RL, but less than 5x the RL. The duplicate result was > ABS(Original – Duplicate)
HA-01-0921	Total Organic Carbon	150,000 mg/kg	J	Lab Duplicate RPD > RPD Limit
HA-01-0921	Chromium, Hexavalent	ND	UJ	Matrix Spike < Rejection Limit. The post digestion spike was within limits.
HA-01-0921, HA-02-0921, HA-03-0921, HA-1003-0921, SB18-9-10-0921	3,3'-Dichlorobenzidine	ND	UJ	Erratic QC Recoveries as stated by the lab
TB01-0921	All Analytes Method SW8260D	ND	UJ	Trip blank had visible headspace upon arrival to the lab
HA-01-0921	Aroclor-1254	0.0704 mg/kg	NJ	Pattern does not match standard, estimated based on closest matching Aroclor
HA-03-0921, HA-1003-0921	All Results	All Results	J, UJ	Total Solids < 30%. Results qualified as estimated or estimated non-detect.
HA-01-0921, HA-02-0921	All Analytes Method SW8260D	ND	UJ	Holding time exceeded by 1 day
DU-01-0921---As Received	All Analytes Method SW8260D	ND	UJ	Holding time exceeded by 2 days
DU-02-0921---After Processing	Chromium, Hexavalent	ND	UJ	Holding time exceeded

DU-01-0921---After Processing, DU-02-0921---After Processing	Total Organic Carbon	11000 mg/kg, 41000 mg/kg	J	Holding time exceeded 2 weeks, but less than 2x holding time limit
DU-01-0921---After Processing, DU-02-0921---After Processing	All ND Analytes Method SW8270E	ND	UJ	Extracted > 2x holding time limit. Non-detected results qualified estimated due to holding time exceedance
DU-01-0921---After Processing,	Benz(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Dibenz(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, Pyrene	0.738 mg/kg, 1.05 mg/kg, 1.13 mg/kg, 0.844 mg/kg, 0.944 mg/kg, 0.186 mg/kg, 0.695 mg/kg, 0.693 mg/kg, 0.245 mg/kg, 1.01 mg/kg	J	Extracted > 2x holding time limit. Detected results qualified estimated due to holding time exceedance
DU-02-0921---After Processing	Benz(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, Pyrene	0.166 mg/kg, 0.238 mg/kg, 0.238 mg/kg, 0.166 mg/kg, 0.182 mg/kg, 0.215 mg/kg, 0.133 mg/kg, 0.173 mg/kg, 0.321 mg/kg	J	Extracted > 2x holding time limit. Detected results qualified estimated due to holding time exceedance
DU-02-0921---After Processing	Percent Solids	97.2	J	Holding time exceeded
HA-01-0921, HA-02-0921, DU-01-0921---As Received	Dichlorodifluoromethane	ND	UJ-	Holding time exceeded, LCS < LCL
HA-03-0921, HA-1003-0921	Dichlorodifluoromethane	ND	UJ-	Holding time exceeded, LCS < LCL, Total Solids < 30%

DU-01-0921---After Processing	Benzo(k)fluoranthene	0.367	J	Holding time exceeded, peak separation for isomers insufficient
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HA-03-0921, HA-1003-0921	All Analytes Method SW8260D	ND	UJ	Holding time exceeded, Total Solids < 30%
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DU-01-0921---After Processing	Chromium, Hexavalent	ND	UJ	MS < LCL, post digestion spike within limits, holding time exceeded
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Level 2 Data Validation Checks
Eatonville
Report A2B0202

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Package is complete and no data was rejected.
Holding times	MBF	PZ-102_0222, PZ-03_0222, PZ-04_0222, SW-09_0222, SW-109_0222, SW-07_0222, SW-08_0222, SW-10_0222, SW-11_0222, SW-11_0222, SW-12_0222, SW-13_0222 were all analyzed past holding times for Nitrate, Nitrite (as N), and Nitrate/Nitrite.
Preservation	MBF	HA-02-Comp-1.0-2.0_0222, HA-102-Comp-1.0-2.0_0222, HA-03-Comp-1.0-2.0_0222, HA-04-Comp-1.0-2.0_0222, HA-05-Comp-1.0-2.0_0222 were subsampled by the lab and the aliquot was not preserved within 48 hours of original sampling. EB-02 incomplete field preservation, additional preservative was added to adjust pH within range. This was done within the unpreserved holding time, so not qualifier.
COC Documentation	MBF	All IDs were missing the _0222 that was present on COC. COC stated HA-02-Comp-1.0-2.0_0222 @ 1604 and 3 containers, time reads 1610 and 1 container provided. HA-102-Comp-0.5-1.0_0222@ 1610, time reads 1604. HA-102, HA-03, HA-04, HA-05-Comp-1.0-2.0_0222 3 containers on COC, but 1 provided. PZ-04_0222 ID on bottle reads SW-04 & ID on lid reads PZ-04. EB-02 14 containers on COC, but 12 provided.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	PZ-01_0222, PZ-02_0222, PZ-102_0222, PZ-03_0222, PZ-04_0222, PZ-05_0222, SW-09_0222, SW-109_0222, SW-07_0222, SW-08_0222, SW-10_0222, SW-11_0222, SW-12_0222, SW-13_0222, SW-14_0222 Acetone ICV was below the lower control limit. Estimated biased low.
Method blanks, trip blank, and field blanks	MBF	Equipment blank EB-02 had results for Nickel, Barium and Chromium, Hexavalent above the RL. No associated sample result detections for Nickel caused qualification. Associated Barium and Chromium, Hexavalent samples detected greater than equipment blank, but less than 3x the contamination were qualified J+. Associated samples detected less than the equipment blank qualified U, but still reported at sample result concentration.
Surrogate compounds	MBF	All surrogates were within acceptable range.
LCS/LCSD	MBF	All LCS were within acceptable range.
MS/MSD	MBF	Chromium, Hexavalent for HA-102-Comp-1.0-2.0_0222, HA-01A-0.0-0.5_0222, HA-02B-0.0-0.5_0222 MS were below the rejection limit, but MS2 were above the

Quality Control Check	Checked By	Comment
		rejection limit and the post spikes were within range, so results not rejected and qualified UJ. HA-01A-0.0-0.5_0222 Copper MS was greater than the UCL and qualified J+. HA-01A-0.0-0.5_0222 Zinc MS was less than the LCL and qualified J-.
Field duplicates	MBF	SW-09_0222 and SW-109_0222 Iron results had an RPD of 86%. The QAPP limits for RPD is set at 50%. These two results were qualified as estimated, J.
Lab duplicates	MBF	HA-05-Comp-0.0-0.5_0222 Lab Duplicate for Nickel had RPD of 21% while the limit was set at 20%, qualified J. HA-02A-0.0-0.5_0222 Percent Solids had an RPD of 25% while the limit is 10%. Qualified J.
Dilution	MBF	HA samples were diluted for method SW7196A, SW6020B, and NWTPH-Gx (MS). SW-10_0222 and W-12_0222 were diluted for E300.0 Sulfate analysis.
Overall Assessment		Qualifier codes added to results; table and notes below.

Notes

Due to volume of results that were qualified for being below the reporting limit (90), results solely qualified for this reason or BRL + TSP (total solids) were not included in Table 1.

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
SW-08_0222, SW-13_0222	Barium	2.73 ug/L, 2.39 ug/L	J+	Detected in Equipment Blank. Sample results was greater than the EB result, but was less than 3x the EB result
PZ-05_0222, SW-09_0222, SW-109_0222, SW-07_0222, SW-08_0222, SW-11_0222, SW-13_0222, SW-14_0222	Chromium, Hexavalent	0.12 ug/L, 0.1 ug/L, 0.089 ug/L, 0.1 ug/L, 0.13 ug/L, 0.09 ug/L, 0.12 ug/L, 0.11 ug/L	J+	Detected in Equipment Blank. Sample results was greater than the EB result, but was less than 3x the EB result
SW-10_0222, SW-12_0222	Chromium, Hexavalent	0.027 ug/L, 0.029 ug/L	U	Detected in Equipment Blank. Sample results was less than EB result. Reported to the sample concentration, but qualified U
SW-12_0222	Iron, Beryllium, Cadmium	53.6 ug/L, 0.214 ug/L, 0.349 ug/L	UJ, UJ, J	Reporting limit raised due to limited sample volume
SW-09_0222, SW-109_0222	Iron	301 ug/L, 120 ug/L	J	Field Duplicate RPD of 86% > 50% RPD limit
PZ-102_0222, PZ-03_0222, PZ-04_0222, SW-07_0222, SW-08_0222, SW-09_0222, SW-109_0222, SW-10_0222, SW-11_0222, SW-12_0222, SW-13_0222	Method EPA 300.0, Nitrate, Nitrite, Nitrate/Nitrite	Varying	UJ, J	Holding time exceeded on short hold time requirement. Non-detects qualified UJ. Detects qualified J
PZ-01_0222, PZ-02_0222, PZ-102_0222, PZ-03_0222, PZ-04_0222, PZ-05_0222, SW-07_0222, SW-08_0222, SW-09_0222, SW-10_0222, SW-11_0222,	Acetone	ND	UJ	ICV < LCL

SW-12_0222,
SW-13_0222,
SW-14_0222

HA-05-Comp-0.0-0.5_0222	Nickel	7.38 mg/kg	J	Lab Duplicate RPD (21%) > RPD Limit (20%), Below reporting limit
HA-02A-0.0-0.5_0222	Percent Solids	27.4%	J	Lab Duplicate RPD (25%) > RPD Limit (10%)
HA-102-Comp-1.0-2.0_0222, HA-01A-0.0-0.5_0222, HA-02B-0.0-0.5_0222	Chromium, Hexavalent	ND	UJ	MS1 < MS Rejection Limit, Post spike within limits
HA-01A-0.0-0.5_0222	Copper, Zinc	86.9 mg/kg, 389 mg/kg	J+, J-	Copper MS > UCL, Zinc MS < LCL
HA-01-Comp-0.5-1.0_0222, HA-03-Comp-0.5-1.0_0222,	Heavy Oil Range Hydrocarbons	269 mg/kg, 324 mg/kg	J+	Individual analyte peaks in the quant range present, results elevated
HA-04-Comp-0.0-0.5_0222	Heavy Oil Range Hydrocarbons	434 mg/kg	J	No Fuel pattern present, results from diesel C12-C24 & Oil C24-C40
HA-04-Comp-0.0-0.5_0222	TPH-Gasoline Range Organics	95 mg/kg	J	No fuel pattern present, presence of individual analyte peaks
EB-01	TPH-Diesel Range Organics	0.499 mg/L	J	Chromatogram does not resemble standard
HA-02-Comp-1.0-2.0_0222, HA-102-Comp-1.0-2.0_0222, HA-03-Comp-1.0-2.0_0222, HA-04-Comp-1.0-2.0_0222, HA-05-Comp-1.0-2.0_0222	TPH-Gasoline Range Organics	ND	UJ	Aliquot taken for analysis was previously sampled and the subsampled aliquot was not preserved within 48 hours.

HA-02-Comp-0.5-1.0_0222, HA-102-Comp-0.5-1.0_0222, HA-102-Comp-1.0-2.0_0222, HA-03-Comp-0.5-1.0_0222, HA-04-Comp-0.0-0.5_0222, HA-05-Comp-0.0-0.5_0222, HA-01B-0.0-0.5_0222, HA-01C-0.0-0.5_0222, HA-01D-0.0-0.5_0222, HA-02A-0.0-0.5_0222, HA-02C-0.0-0.5_0222, HA-02D-0.0-0.5_0222, HA-02E-0.0-0.5_0222, HA-03A-0.0-0.5_0222, HA-03B-0.0-0.5_0222, HA-03C-0.0-0.5_0222, HA-03D-0.0-0.5_0222, HA-03E-0.0-0.5_0222, HA-02-Comp-0.0-0.5_0222, HA-03-Comp-0.0-0.5_0222	All Analytes	< 30 %	J, UJ	Results associated with these samples where the total solids < 30% were qualified J if detected and UJ if non-detect
SW-12_0222	Arsenic, Copper, Nickel	0.864 ug/l, 1.55 ug/l, 1.27 ug/l	J	Reporting limit raised due to limited sample volume, Below reporting limit

Level 2 Data Validation Checks
Eatonville
Report A2B0895

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times for all Solids analysis was exceeded and data qualified.
Preservation	MBF	Preservation is acceptable.
COC Documentation	MBF	COC was included in lab report. It was noted there were jars that broke during transit to lab.
Analytical methods	MBF	Requested analytical methods were used. There were also additional TCLP analysis performed on HA-01D-0.0-0.5_0222, HA-03C-0.0-0.5_0222, and HA-02D-0.0-0.5_0222 that was not on the COC.
Initial and continuing calibrations	MBF	No issues were noted.
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch. There were no detections.
Surrogate compounds	MBF	No surrogates were analyzed.
LCS/LCSD	MBF	LCS was run per batch. There were no issues.
MS/MSD	MBF	MS was run on per batch. Batch 22C0247 the MS (HA-01A-0.5-1.0_0222) was below the LCL for zinc and lead. Batch 22C0260 the MS (HA-03A-0.5-1.0_0222) was below the LCL for lead.
Field duplicates	MBF	Two field duplicates were run (PZ-102_0222 & SW-109_0222) and results of the duplicates as well as the parent samples were ND.
Lab duplicates	MBF	Batch 22C0247 lab duplicate (HA-01A-0.5-1.0_0222) RPD was greater than the RPD limit for zinc. Batch 22C0260 lab duplicate (HA-03A-0.5-1.0_0222) RPD was greater than the RPD limit for lead.
Dilution	MBF	All samples analyzed for zinc and lead were diluted 10x. LabSampleID A2B0895-41RE1 (HA-01D-0.0-0.5_0222) was diluted 100x for zinc analysis.

Overall Assessment

Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
All Samples	Total Solids		J	Holding Time Exceeded
HA-01A-0.5-1.0_0222	Lead	338 mg/kg	J	MS < LCL
HA-01A-0.5-1.0_0222	Zinc	663 mg/kg	J	Lab Duplicate > RPD Limit, MS < LCL
HA-03A-0.5-1.0_0222	Lead	273 mg/kg	J	Lab Duplicate > RPD Limit, MS < LCL
All Samples	Method SW8000D, Percent Solids	All Results	J	Holding time exceeded
HA-01B-0.5-1.0_0222, HA-02A-0.5-1.0_0222, HA-02B-0.5-1.0_0222, HA-02C-0.5-1.0_0222, HA-02D-0.5-1.0_0222, HA-02E-0.5-1.0_0222, HA-02D-1.0-2.0_0222, HA-03D-0.5-1.0_0222, HA-03E-0.5-1.0_0222, HA-03E-1.0-2.0_0222, HA-04A-0.0-0.5_0222, HA-04B-0.0-0.5_0222, HA-04C-0.0-0.5_0222, HA-04D-0.0-0.5_0222, HA-04E-0.0-0.5_0222, HA-05C-0.0-0.5_0222, HA-05D-0.0-0.5_0222, HA-03C-0.0-0.5_0222, HA-02E-0.0-0.5_0222	Lead, Zinc	ND, Detect	UJ, J	Total Solids < 30%
HA-01D-0.0-0.5_0222	Lead	0.0333 mg/l	J	Below reporting limit, Total Solids < 30%

Level 2 Data Validation Checks
Eatonville
Report A2H0521

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	No issues were noted.
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch. There were no detections. Prep Batch 22H0772 was flagged for Zinc blank detection. Associated method blank was ND, detection likely in calibration. All QC passed and results were greater than 10x RL. No results qualified. Equipment blank zinc detection not used for qualification due to matrix difference ug/l to mg/kg for soil vs water.
Surrogate compounds	MBF	No surrogates were analyzed.
LCS/LCSD	MBF	LCS was run per batch. There were no issues.
MS/MSD	MBF	MS was run per batch. No issues.
Field duplicates	MBF	Primary Sample: HA-05Ab-0.0-0.5 Duplicate Sample: HA-105Ab-0.0-0.5 Primary Sample: HA-02F-0.0-0.5 Duplicate Sample: HA-102F-0.0-0.5 Field Duplicates were collected and RPDs were within control limits.
Lab duplicates	MBF	Batch 22H0772 lab duplicate > 20% RPD (35%). Duplicate was non-SDG. No results qualified.
Dilution	MBF	All solid samples analyzed for zinc and lead were diluted 10x. Aqueous Equipment Blank (EB-01_0822) was not diluted.

Overall Assessment

Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
HA-05G-0.0-0.5, HA-05F-0.0-0.5, HA-04Ab-0.0-0.5, HA-07B-0.0-0.5, HA-07C-0.0-0.5, HA-06C-0.0-0.5, HA-06D-0.0-0.5, HA-06I-0.0-0.5, HA-07I-0.0-0.5, HA-07D-0.0-0.5, HA-06E-0.0-0.5, HA-07E-0.0-0.5	Lead, Zinc	15.8 mg/kg, 65.8 mg/kg 31.7 mg/kg, 733 mg/kg 31.0 mg/kg, 30.0 mg/kg 143 mg/kg, 45.5 mg/kg 112 mg/kg, 32.5 mg/kg 214 mg/kg, 60.8 mg/kg 501 mg/kg, 410 mg/kg 47.6 mg/kg, 1990 mg/kg 40.1 mg/kg, 1910 mg/kg 223 mg/kg, 192 mg/kg 38.5 mg/kg, 291 mg/kg 197 mg/kg, 548 mg/kg	J	Percent Solids < 30%
EB-01_0822	Zinc	2.38 ug/l	J	Below reporting limit

Level 2 Data Validation Checks
Eatonville
Report A2I0312

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	No issues were noted.
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch. There were no detections.
Surrogate compounds	MBF	No surrogates were analyzed or required per the method.
LCS/LCSD	MBF	LCS was run per batch. There were no issues.
MS/MSD	MBF	MS was run per batch and result were within control limits except for: Total Metals <ul style="list-style-type: none"> • Barium 71% < 75% LCL • Chromium 67% < 75% LCL • Vanadium 74% < 75% LCL • Zinc 144% > 125% UCL Results qualified J/J- depending on other qualifications (See Table 1).
Field duplicates	MBF	Field Duplicates were not collected or analyzed.
Lab duplicates	MBF	Lab duplicates were within control limits except for: Total Metals <ul style="list-style-type: none"> • Chromium 27% > 20% RPD Limit • Zinc 26% > 20% RPD Limit
Dilution	MBF	All samples were diluted for each method except for Percent Solids.

Overall Assessment

Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
IDW-20220907	Cadmium (T), Mercury (T), Zinc (TCLP)	0.12 mg/kg, 0.0393 mg/kg, 0.437 mg/l	J	Below reporting limit
IDW-20220907	Chromium (T), Zinc (T)	47.3 mg/kg	J	LD RPD 27% > 20% Limit, MS 67% < 75% LCL
IDW-20220907	Zinc (T)	70.2 mg/kg	J	LD RPD 26% > 20% Limit, MS 144% > 125% LCL
IDW-20220907	Barium, Vanadium	91.5 mg/kg, 59 mg/kg	J-	MS 71% < 75% LCL, MS 74% < 75% LCL

Level 2 Data Validation Checks
Eatonville
Report N021001

Comments:

- U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	The holding times for SW-109_1555 (4 min), SW-07-_0222 (170 min), SW-08_0222 (111 min), and SW-10_0222 (1 min) were exceeded. Results were not qualified due to exceedances lasting minutes and less than one day.
Preservation	MBF	Preservation is acceptable.
COC Documentation	MBF	COC was present with parent lab report, but not included with subcontract lab report. It was specified in the subcontract case narrative that samples were received intact and appropriate temperature. All sample IDs were missing the -0222 suffix written on the COC.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	No issues were noted.
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch. There were no detections.
Surrogate compounds	MBF	No surrogates were analyzed.
LCS/LCSD	MBF	An LCS and LCSD were run per batch. No issues noted.
MS/MSD	MBF	MS/MSD samples were not requested or run.
Field duplicates	MBF	Two field duplicates were run (PZ-102_0222 & SW-109_0222) and results of the duplicates as well as the parent samples were ND.
Lab duplicates	MBF	Lab duplicates were not run. LCS/LCSD was run instead.
Dilution	MBF	No samples were diluted.
Overall Assessment		Qualifier codes added to results; table and notes below.

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result (ug/l)	Qualifier Assigned	Reason for Qualification
PZ-01_0222	Ethene	0.80	J	Below reporting limit
PZ-02_0222	Ethene, Ethane	0.061, 0.069	J	Below reporting limit

PZ-05_0222	Ethene, Ethane, Methane	0.37, 0.58, 0.97	J	Below reporting limit
SW-07_0222	Methane	0.99	J	Below reporting limit
SW-10_0222	Methane	0.71	J	Below reporting limit
SW-11_0222	Methane	0.51	J	Below reporting limit

Supplemental Data

	A	B	C	D	E	F	G	H	I	J	K	L
1	Normal Background Statistics for Uncensored Full Data Sets											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.2 5/1/2023 2:38:27 PM								
5	From File			USGS_Top5_MF.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			90%								
8	Coverage			90%								
9	New or Future K Observations			1								
10												
11	Top5_Ba											
12												
13	General Statistics											
14	Total Number of Observations				25		Number of Distinct Observations				25	
15	Minimum				247		First Quartile				335	
16	Second Largest				651		Median				499	
17	Maximum				1080		Third Quartile				563	
18	Mean				470		SD				182.4	
19	Coefficient of Variation				0.388		Skewness				1.466	
20	Mean of logged Data				6.088		SD of logged Data				0.362	
21												
22	Critical Values for Background Threshold Values (BTVs)											
23	Tolerance Factor K (For UTL)				1.702		d2max (for USL)				2.486	
24												
25	Normal GOF Test											
26	Shapiro Wilk Test Statistic				0.869		Shapiro Wilk GOF Test					
27	1% Shapiro Wilk Critical Value				0.886		Data Not Normal at 1% Significance Level					
28	Lilliefors Test Statistic				0.12		Lilliefors GOF Test					
29	1% Lilliefors Critical Value				0.201		Data appear Normal at 1% Significance Level					
30	Data appear Approximate Normal at 1% Significance Level											
31												
32	Background Statistics Assuming Normal Distribution											
33	90% UTL with		90% Coverage		780.4		90% Percentile (z)				703.7	
34			90% UPL (t)		715.1		95% Percentile (z)				769.9	
35			90% USL		923.4		99% Percentile (z)				894.2	
36												
37	Note: The use of USL tends to yield a conservative estimate of BTV, especially when the sample size starts exceeding 20.											
38	Therefore, one may use USL to estimate a BTV only when the data set represents a background data set free of outliers											
39	and consists of observations collected from clean unimpacted locations.											
40	The use of USL tends to provide a balance between false positives and false negatives provided the data											
41	represents a background data set and when many onsite observations need to be compared with the BTV.											
42												
43	Top5_Co											
44												
45	General Statistics											
46	Total Number of Observations				25		Number of Distinct Observations				25	
47	Minimum				4.8		First Quartile				12	
48	Second Largest				28.6		Median				16.3	
49	Maximum				33.1		Third Quartile				20.8	
50	Mean				17.26		SD				7.01	
51	Coefficient of Variation				0.406		Skewness				0.58	
52	Mean of logged Data				2.764		SD of logged Data				0.435	
53												

54	Critical Values for Background Threshold Values (BTVs)									
55	Tolerance Factor K (For UTL)			1.702	d2max (for USL)				2.486	
56										
57	Normal GOF Test									
58	Shapiro Wilk Test Statistic			0.95	Shapiro Wilk GOF Test					
59	1% Shapiro Wilk Critical Value			0.886	Data appear Normal at 1% Significance Level					
60	Lilliefors Test Statistic			0.161	Lilliefors GOF Test					
61	1% Lilliefors Critical Value			0.201	Data appear Normal at 1% Significance Level					
62	Data appear Normal at 1% Significance Level									
63										
64	Background Statistics Assuming Normal Distribution									
65	90% UTL with	90% Coverage	29.19	90% Percentile (z)				26.24		
66		90% UPL (t)	26.68	95% Percentile (z)				28.79		
67		90% USL	34.68	99% Percentile (z)				33.56		
68										
69	Note: The use of USL tends to yield a conservative estimate of BTV, especially when the sample size starts exceeding 20.									
70	Therefore, one may use USL to estimate a BTV only when the data set represents a background data set free of outliers									
71	and consists of observations collected from clean unimpacted locations.									
72	The use of USL tends to provide a balance between false positives and false negatives provided the data									
73	represents a background data set and when many onsite observations need to be compared with the BTV.									
74										
75	Top5_V									
76										
77	General Statistics									
78	Total Number of Observations			25	Number of Distinct Observations				24	
79	Minimum			70	First Quartile				91	
80	Second Largest			265	Median				113	
81	Maximum			372	Third Quartile				147	
82	Mean			133.8	SD				70.58	
83	Coefficient of Variation			0.528	Skewness				2.015	
84	Mean of logged Data			4.797	SD of logged Data				0.429	
85										
86	Critical Values for Background Threshold Values (BTVs)									
87	Tolerance Factor K (For UTL)			1.702	d2max (for USL)				2.486	
88										
89	Normal GOF Test									
90	Shapiro Wilk Test Statistic			0.784	Shapiro Wilk GOF Test					
91	1% Shapiro Wilk Critical Value			0.886	Data Not Normal at 1% Significance Level					
92	Lilliefors Test Statistic			0.201	Lilliefors GOF Test					
93	1% Lilliefors Critical Value			0.201	Data appear Normal at 1% Significance Level					
94	Data appear Approximate Normal at 1% Significance Level									
95										
96	Background Statistics Assuming Normal Distribution									
97	90% UTL with	90% Coverage	253.9	90% Percentile (z)				224.3		
98		90% UPL (t)	228.7	95% Percentile (z)				249.9		
99		90% USL	309.3	99% Percentile (z)				298		
100										
101	Note: The use of USL tends to yield a conservative estimate of BTV, especially when the sample size starts exceeding 20.									
102	Therefore, one may use USL to estimate a BTV only when the data set represents a background data set free of outliers									
103	and consists of observations collected from clean unimpacted locations.									
104	The use of USL tends to provide a balance between false positives and false negatives provided the data									
105	represents a background data set and when many onsite observations need to be compared with the BTV.									
106										

	A	B	C	D	E	F	G	H	I	J	K	L
1				Background Statistics for Data Sets with Non-Detects								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.2 5/1/2023 3:04:45 PM								
4	From File			USGS_Top5_MF.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			90%								
7	Coverage			90%								
8	Different or Future K Observations			1								
9	Number of Bootstrap Operations			2000								
10												
11	Top5_Se											
12												
13	General Statistics											
14	Total Number of Observations				25		Number of Missing Observations				0	
15	Number of Distinct Observations				5							
16	Number of Detects				10		Number of Non-Detects				15	
17	Number of Distinct Detects				5		Number of Distinct Non-Detects				1	
18	Minimum Detect				0.2		Minimum Non-Detect				0.2	
19	Maximum Detect				0.9		Maximum Non-Detect				0.2	
20	Variance Detected				0.0623		Percent Non-Detects				60%	
21	Mean Detected				0.43		SD Detected				0.25	
22	Mean of Detected Logged Data				-0.989		SD of Detected Logged Data				0.562	
23												
24	Critical Values for Background Threshold Values (BTVs)											
25	Tolerance Factor K (For UTL)				1.702		d2max (for USL)				2.486	
26												
27	Normal GOF Test on Detects Only											
28	Shapiro Wilk Test Statistic				0.848		Shapiro Wilk GOF Test					
29	1% Shapiro Wilk Critical Value				0.781		Detected Data appear Normal at 1% Significance Level					
30	Lilliefors Test Statistic				0.248		Lilliefors GOF Test					
31	1% Lilliefors Critical Value				0.304		Detected Data appear Normal at 1% Significance Level					
32	Detected Data appear Normal at 1% Significance Level											
33												
34	Kaplan Meier (KM) Background Statistics Assuming Normal Distribution											
35	KM Mean				0.292		KM SD				0.187	
36	90% UTL90% Coverage				0.611		90% KM UPL (t)				0.544	
37	90% KM Percentile (z)				0.532		95% KM Percentile (z)				0.6	
38	99% KM Percentile (z)				0.728		90% KM USL				0.758	
39												
40	DL/2 Substitution Background Statistics Assuming Normal Distribution											
41	Mean				0.232		SD				0.225	
42	90% UTL90% Coverage				0.615		90% UPL (t)				0.534	
43	90% Percentile (z)				0.52		95% Percentile (z)				0.602	
44	99% Percentile (z)				0.755		90% USL				0.791	
45	DL/2 is not a recommended method. DL/2 provided for comparisons and historical reasons											
46												
47	Gamma GOF Tests on Detected Observations Only											
48	A-D Test Statistic				0.544		Anderson-Darling GOF Test					
49	5% A-D Critical Value				0.73		Detected data appear Gamma Distributed at 5% Significance Level					
50	K-S Test Statistic				0.183		Kolmogorov-Smirnov GOF					
51	5% K-S Critical Value				0.268		Detected data appear Gamma Distributed at 5% Significance Level					
52	Detected data appear Gamma Distributed at 5% Significance Level											
53												

	A	B	C	D	E	F	G	H	I	J	K	L
54	Gamma Statistics on Detected Data Only											
55	k hat (MLE)				3.612	k star (bias corrected MLE)						2.595
56	Theta hat (MLE)				0.119	Theta star (bias corrected MLE)						0.166
57	nu hat (MLE)				72.23	nu star (bias corrected)						51.9
58	MLE Mean (bias corrected)				0.43							
59	MLE Sd (bias corrected)				0.267	90% Percentile of Chisquare (2kstar)						9.507
60												
61	Gamma ROS Statistics using Imputed Non-Detects											
62	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
63	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
64	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
65	This is especially true when the sample size is small.											
66	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
67	Minimum				0.01	Mean						0.182
68	Maximum				0.9	Median						0.01
69	SD				0.258	CV						1.419
70	k hat (MLE)				0.483	k star (bias corrected MLE)						0.452
71	Theta hat (MLE)				0.376	Theta star (bias corrected MLE)						0.402
72	nu hat (MLE)				24.17	nu star (bias corrected)						22.6
73	MLE Mean (bias corrected)				0.182	MLE Sd (bias corrected)						0.27
74	90% Percentile of Chisquare (2kstar)				2.496	90% Percentile						0.501
75	95% Percentile				0.723	99% Percentile						1.273
76	The following statistics are computed using Gamma ROS Statistics on Imputed Data											
77	Upper Limits using Wilson Hilferty (WH) and Hawkins Wixley (HW) Methods											
78			WH	HW							WH	HW
79	90% Approx. Gamma UTL with 90% Coverage		0.695	0.735	90% Approx. Gamma UPL						0.495	0.498
80	90% Gamma USL		1.309	1.539								
81												
82	Estimates of Gamma Parameters using KM Estimates											
83	Mean (KM)				0.292	SD (KM)						0.187
84	Variance (KM)				0.0351	SE of Mean (KM)						0.0395
85	k hat (KM)				2.427	k star (KM)						2.162
86	nu hat (KM)				121.3	nu star (KM)						108.1
87	theta hat (KM)				0.12	theta star (KM)						0.135
88	80% gamma percentile (KM)				0.433	90% gamma percentile (KM)						0.558
89	95% gamma percentile (KM)				0.676	99% gamma percentile (KM)						0.937
90												
91	The following statistics are computed using gamma distribution and KM estimates											
92	Upper Limits using Wilson Hilferty (WH) and Hawkins Wixley (HW) Methods											
93			WH	HW							WH	HW
94	90% Approx. Gamma UTL with 90% Coverage		0.574	0.569	90% Approx. Gamma UPL						0.496	0.49
95	90% KM Gamma Percentile		0.483	0.477	90% Gamma USL						0.772	0.776
96												
97	Lognormal GOF Test on Detected Observations Only											
98	Shapiro Wilk Test Statistic				0.891	Shapiro Wilk GOF Test						
99	10% Shapiro Wilk Critical Value				0.869	Detected Data appear Lognormal at 10% Significance Level						
100	Lilliefors Test Statistic				0.17	Lilliefors GOF Test						
101	10% Lilliefors Critical Value				0.241	Detected Data appear Lognormal at 10% Significance Level						
102	Detected Data appear Lognormal at 10% Significance Level											
103												

	A	B	C	D	E	F	G	H	I	J	K	L
104	Background Lognormal ROS Statistics Assuming Lognormal Distribution Using Imputed Non-Detects											
105	Mean in Original Scale				0.216	Mean in Log Scale				-2.07		
106	SD in Original Scale				0.237	SD in Log Scale				1.093		
107	90% UTL90% Coverage				0.811	90% BCA UTL90% Coverage				0.7		
108	90% Bootstrap (%) UTL90% Coverage				0.7	90% UPL (t)				0.548		
109	90% Percentile (z)				0.512	95% Percentile (z)				0.762		
110	99% Percentile (z)				1.604	90% USL				1.91		
111												
112	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
113	KM Mean of Logged Data				-1.361	90% KM UTL (Lognormal)90% Coverage				0.555		
114	KM SD of Logged Data				0.454	90% KM UPL (Lognormal)				0.472		
115	90% KM Percentile Lognormal (z)				0.459	90% KM USL (Lognormal)				0.792		
116												
117	Background DL/2 Statistics Assuming Lognormal Distribution											
118	Mean in Original Scale				0.232	Mean in Log Scale				-1.777		
119	SD in Original Scale				0.225	SD in Log Scale				0.741		
120	90% UTL90% Coverage				0.597	90% UPL (t)				0.458		
121	90% Percentile (z)				0.437	95% Percentile (z)				0.573		
122	99% Percentile (z)				0.949	90% USL				1.069		
123	DL/2 is not a Recommended Method. DL/2 provided for comparisons and historical reasons.											
124												
125	Nonparametric Distribution Free Background Statistics											
126	Data appear to follow a Discernible Distribution											
127												
128	Nonparametric Upper Limits for BTVs(no distinction made between detects and nondetects)											
129	Order of Statistic, r				24	90% UTL with90% Coverage				0.9		
130	Approx, f used to compute achieved CC				1.333	Approximate Actual Confidence Coefficient achieved by UTL				0.729		
131	Approximate Sample Size needed to achieve specified CC				22	90% UPL				0.7		
132	90% USL				0.9	90% KM Chebyshev UPL				0.865		
133												
134	Note: The use of USL tends to yield a conservative estimate of BTV, especially when the sample size starts exceeding 20.											
135	Therefore, one may use USL to estimate a BTV only when the data set represents a background data set free of outliers											
136	and consists of observations collected from clean unimpacted locations.											
137	The use of USL tends to provide a balance between false positives and false negatives provided the data											
138	represents a background data set and when many onsite observations need to be compared with the BTV.											
139												

	A	B	C	D	E	F	G	H	I	J	K	L
1				Background Statistics for Uncensored Full Data Sets								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.2 5/1/2023 3:21:03 PM								
4	From File			C:\Users\bjohnson\Desktop\Eatonville ProUCL\USGS_Top5_MF.xlsx								
5	Full Precision			OFF								
6	Confidence Coefficient			90%								
7	Coverage			90%								
8	New or Future K Observations			1								
9	Number of Bootstrap Operations			2000								
10												
11	Top5_TI											
12												
13	General Statistics											
14	Total Number of Observations			25	Number of Distinct Observations			4				
15	Minimum			0.1	First Quartile			0.2				
16	Second Largest			0.4	Median			0.2				
17	Maximum			0.4	Third Quartile			0.3				
18	Mean			0.236	SD			0.081				
19	Coefficient of Variation			0.343	Skewness			0.239				
20	Mean of logged Data			-1.507	SD of logged Data			0.38				
21												
22	Critical Values for Background Threshold Values (BTVs)											
23	Tolerance Factor K (For UTL)			1.702	d2max (for USL)			2.486				
24												
25	Normal GOF Test											
26	Shapiro Wilk Test Statistic			0.865	Shapiro Wilk GOF Test							
27	1% Shapiro Wilk Critical Value			0.886	Data Not Normal at 1% Significance Level							
28	Lilliefors Test Statistic			0.272	Lilliefors GOF Test							
29	1% Lilliefors Critical Value			0.201	Data Not Normal at 1% Significance Level							
30	Data Not Normal at 1% Significance Level											
31												
32	Background Statistics Assuming Normal Distribution											
33	90% UTL with 90% Coverage			0.374	90% Percentile (z)			0.34				
34	90% UPL (t)			0.345	95% Percentile (z)			0.369				
35	90% USL			0.437	99% Percentile (z)			0.425				
36												
37	Gamma GOF Test											
38	A-D Test Statistic			1.727	Anderson-Darling Gamma GOF Test							
39	5% A-D Critical Value			0.746	Data Not Gamma Distributed at 5% Significance Level							
40	K-S Test Statistic			0.248	Kolmogorov-Smirnov Gamma GOF Test							
41	5% K-S Critical Value			0.175	Data Not Gamma Distributed at 5% Significance Level							
42	Data Not Gamma Distributed at 5% Significance Level											
43												
44	Gamma Statistics											
45	k hat (MLE)			8.038	k star (bias corrected MLE)			7.1				
46	Theta hat (MLE)			0.0294	Theta star (bias corrected MLE)			0.0332				
47	nu hat (MLE)			401.9	nu star (bias corrected)			355				
48	MLE Mean (bias corrected)			0.236	MLE Sd (bias corrected)			0.0886				
49												

	A	B	C	D	E	F	G	H	I	J	K	L
50	Background Statistics Assuming Gamma Distribution											
51	90% Wilson Hilferty (WH) Approx. Gamma UPL					0.357	90% Percentile					0.354
52	90% Hawkins Wixley (HW) Approx. Gamma UPL					0.359	95% Percentile					0.398
53	90% WH Approx. Gamma UTL with 90% Coverage					0.398	99% Percentile					0.489
54	90% HW Approx. Gamma UTL with 90% Coverage					0.403						
55	90% WH USL					0.5	90% HW USL					0.514
56												
57	Lognormal GOF Test											
58	Shapiro Wilk Test Statistic					0.834	Shapiro Wilk Lognormal GOF Test					
59	10% Shapiro Wilk Critical Value					0.931	Data Not Lognormal at 10% Significance Level					
60	Lilliefors Test Statistic					0.274	Lilliefors Lognormal GOF Test					
61	10% Lilliefors Critical Value					0.159	Data Not Lognormal at 10% Significance Level					
62	Data Not Lognormal at 10% Significance Level											
63												
64	Background Statistics assuming Lognormal Distribution											
65	90% UTL with 90% Coverage					0.423	90% Percentile (z)					0.36
66	90% UPL (t)					0.369	95% Percentile (z)					0.413
67	90% USL					0.569	99% Percentile (z)					0.536
68												
69	Nonparametric Distribution Free Background Statistics											
70	Data do not follow a Discernible Distribution											
71												
72	Nonparametric Upper Limits for Background Threshold Values											
73	Order of Statistic, order					25	90% UTL with 90% Coverage					0.4
74	Approx, f used to compute achieved CC					1.333	Approximate Actual Confidence Coefficient achieved by UTL					0.729
75							Approximate Sample Size needed to achieve specified CC					22
76	90% Percentile Bootstrap UTL with 90% Coverage					0.4	90% BCA Bootstrap UTL with 90% Coverage					0.2
77	90% UPL					0.34	90% Percentile					0.3
78	90% Chebyshev UPL					0.484	95% Percentile					0.38
79	95% Chebyshev UPL					0.596	99% Percentile					0.4
80	90% USL					0.4						
81												
82	Note: The use of USL tends to yield a conservative estimate of BTV, especially when the sample size starts exceeding 20.											
83	Therefore, one may use USL to estimate a BTV only when the data set represents a background data set free of outliers											
84	and consists of observations collected from clean unimpacted locations.											
85	The use of USL tends to provide a balance between false positives and false negatives provided the data											
86	represents a background data set and when many onsite observations need to be compared with the BTV.											
87												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Uncensored Full Data Sets											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.2 5/9/2023 10:00:35 AM								
5	From File			WetlandCompleteProUCL.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10												
11	Barium											
12												
13	General Statistics											
14	Total Number of Observations				25		Number of Distinct Observations				25	
15							Number of Missing Observations				65	
16	Minimum				40		Mean				71.78	
17	Maximum				116		Median				65.3	
18	SD				23.22		Std. Error of Mean				4.643	
19	Coefficient of Variation				0.323		Skewness				0.546	
20												
21	Normal GOF Test											
22	Shapiro Wilk Test Statistic				0.907		Shapiro Wilk GOF Test					
23	1% Shapiro Wilk Critical Value				0.886		Data appear Normal at 1% Significance Level					
24	Lilliefors Test Statistic				0.205		Lilliefors GOF Test					
25	1% Lilliefors Critical Value				0.201		Data Not Normal at 1% Significance Level					
26	Data appear Approximate Normal at 1% Significance Level											
27												
28	Assuming Normal Distribution											
29	95% Normal UCL				95% UCLs (Adjusted for Skewness)							
30	95% Student's-t UCL				79.72		95% Adjusted-CLT UCL (Chen-1995)				79.96	
31							95% Modified-t UCL (Johnson-1978)				79.81	
32												
33	Gamma GOF Test											
34	A-D Test Statistic				0.678		Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value				0.745		Detected data appear Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic				0.167		Kolmogorov-Smirnov Gamma GOF Test					
37	5% K-S Critical Value				0.174		Detected data appear Gamma Distributed at 5% Significance Level					
38	Detected data appear Gamma Distributed at 5% Significance Level											
39												
40	Gamma Statistics											
41	k hat (MLE)				10.35		k star (bias corrected MLE)				9.137	
42	Theta hat (MLE)				6.933		Theta star (bias corrected MLE)				7.856	
43	nu hat (MLE)				517.6		nu star (bias corrected)				456.9	
44	MLE Mean (bias corrected)				71.78		MLE Sd (bias corrected)				23.75	
45							Approximate Chi Square Value (0.05)				408.3	
46	Adjusted Level of Significance				0.0395		Adjusted Chi Square Value				405.2	
47												
48	Assuming Gamma Distribution											
49	95% Approximate Gamma UCL				80.32		95% Adjusted Gamma UCL				80.94	
50												
51	Lognormal GOF Test											
52	Shapiro Wilk Test Statistic				0.941		Shapiro Wilk Lognormal GOF Test					
53	10% Shapiro Wilk Critical Value				0.931		Data appear Lognormal at 10% Significance Level					
54	Lilliefors Test Statistic				0.148		Lilliefors Lognormal GOF Test					
55	10% Lilliefors Critical Value				0.159		Data appear Lognormal at 10% Significance Level					
56	Data appear Lognormal at 10% Significance Level											
57												
58	Lognormal Statistics											
59	Minimum of Logged Data				3.689		Mean of logged Data				4.225	
60	Maximum of Logged Data				4.754		SD of logged Data				0.319	
61												
62	Assuming Lognormal Distribution											
63	95% H-UCL				80.96		90% Chebyshev (MVUE) UCL				85.7	
64	95% Chebyshev (MVUE) UCL				92.02		97.5% Chebyshev (MVUE) UCL				100.8	
65	99% Chebyshev (MVUE) UCL				118							
66												

	A	B	C	D	E	F	G	H	I	J	K	L
67	Nonparametric Distribution Free UCL Statistics											
68	Data appear to follow a Discernible Distribution											
69												
70	Nonparametric Distribution Free UCLs											
71	95% CLT UCL				79.42	95% BCA Bootstrap UCL				80.49		
72	95% Standard Bootstrap UCL				79.49	95% Bootstrap-t UCL				80.79		
73	95% Hall's Bootstrap UCL				79.81	95% Percentile Bootstrap UCL				79.68		
74	90% Chebyshev(Mean, Sd) UCL				85.71	95% Chebyshev(Mean, Sd) UCL				92.02		
75	97.5% Chebyshev(Mean, Sd) UCL				100.8	99% Chebyshev(Mean, Sd) UCL				118		
76												
77	Suggested UCL to Use											
78	95% Student's-t UCL				79.72							
79												
80	When a data set follows an approximate distribution passing only one of the GOF tests,											
81	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
82												
83	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
84	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
85	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
86												
87												
88	Chromium											
89												
90	General Statistics											
91	Total Number of Observations				25	Number of Distinct Observations				24		
92						Number of Missing Observations				65		
93	Minimum				4.41	Mean				12.97		
94	Maximum				26.1	Median				12.7		
95	SD				4.622	Std. Error of Mean				0.924		
96	Coefficient of Variation				0.356	Skewness				0.732		
97												
98	Normal GOF Test											
99	Shapiro Wilk Test Statistic				0.961	Shapiro Wilk GOF Test						
100	1% Shapiro Wilk Critical Value				0.886	Data appear Normal at 1% Significance Level						
101	Lilliefors Test Statistic				0.103	Lilliefors GOF Test						
102	1% Lilliefors Critical Value				0.201	Data appear Normal at 1% Significance Level						
103	Data appear Normal at 1% Significance Level											
104												
105	Assuming Normal Distribution											
106	95% Normal UCL					95% UCLs (Adjusted for Skewness)						
107	95% Student's-t UCL				14.55	95% Adjusted-CLT UCL (Chen-1995)				14.63		
108						95% Modified-t UCL (Johnson-1978)				14.57		
109												
110	Gamma GOF Test											
111	A-D Test Statistic				0.214	Anderson-Darling Gamma GOF Test						
112	5% A-D Critical Value				0.746	Detected data appear Gamma Distributed at 5% Significance Level						
113	K-S Test Statistic				0.0847	Kolmogorov-Smirnov Gamma GOF Test						
114	5% K-S Critical Value				0.175	Detected data appear Gamma Distributed at 5% Significance Level						
115	Detected data appear Gamma Distributed at 5% Significance Level											
116												
117	Gamma Statistics											
118	k hat (MLE)				7.974	k star (bias corrected MLE)				7.044		
119	Theta hat (MLE)				1.626	Theta star (bias corrected MLE)				1.841		
120	nu hat (MLE)				398.7	nu star (bias corrected)				352.2		
121	MLE Mean (bias corrected)				12.97	MLE Sd (bias corrected)				4.886		
122						Approximate Chi Square Value (0.05)				309.7		
123	Adjusted Level of Significance				0.0395	Adjusted Chi Square Value				307		
124												
125	Assuming Gamma Distribution											
126	95% Approximate Gamma UCL				14.75	95% Adjusted Gamma UCL				14.88		
127												
128	Lognormal GOF Test											
129	Shapiro Wilk Test Statistic				0.967	Shapiro Wilk Lognormal GOF Test						
130	10% Shapiro Wilk Critical Value				0.931	Data appear Lognormal at 10% Significance Level						
131	Lilliefors Test Statistic				0.0884	Lilliefors Lognormal GOF Test						
132	10% Lilliefors Critical Value				0.159	Data appear Lognormal at 10% Significance Level						

	A	B	C	D	E	F	G	H	I	J	K	L
133	Data appear Lognormal at 10% Significance Level											
134												
135	Lognormal Statistics											
136	Minimum of Logged Data				1.484	Mean of logged Data				2.498		
137	Maximum of Logged Data				3.262	SD of logged Data				0.377		
138												
139	Assuming Lognormal Distribution											
140	95% H-UCL				15.08	90% Chebyshev (MVUE) UCL				16.04		
141	95% Chebyshev (MVUE) UCL				17.41	97.5% Chebyshev (MVUE) UCL				19.31		
142	99% Chebyshev (MVUE) UCL				23.04							
143												
144	Nonparametric Distribution Free UCL Statistics											
145	Data appear to follow a Discernible Distribution											
146												
147	Nonparametric Distribution Free UCLs											
148	95% CLT UCL				14.49	95% BCA Bootstrap UCL				14.61		
149	95% Standard Bootstrap UCL				14.45	95% Bootstrap-t UCL				14.67		
150	95% Hall's Bootstrap UCL				14.84	95% Percentile Bootstrap UCL				14.47		
151	90% Chebyshev(Mean, Sd) UCL				15.74	95% Chebyshev(Mean, Sd) UCL				17		
152	97.5% Chebyshev(Mean, Sd) UCL				18.74	99% Chebyshev(Mean, Sd) UCL				22.17		
153												
154	Suggested UCL to Use											
155	95% Student's-t UCL				14.55							
156												
157	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
158	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
159	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
160												
161												
162	Copper											
163												
164	General Statistics											
165	Total Number of Observations				25	Number of Distinct Observations				24		
166						Number of Missing Observations				65		
167	Minimum				10.6	Mean				50.25		
168	Maximum				208	Median				29.9		
169	SD				50.02	Std. Error of Mean				10		
170	Coefficient of Variation				0.996	Skewness				2.258		
171												
172	Normal GOF Test											
173	Shapiro Wilk Test Statistic				0.694	Shapiro Wilk GOF Test						
174	1% Shapiro Wilk Critical Value				0.886	Data Not Normal at 1% Significance Level						
175	Lilliefors Test Statistic				0.246	Lilliefors GOF Test						
176	1% Lilliefors Critical Value				0.201	Data Not Normal at 1% Significance Level						
177	Data Not Normal at 1% Significance Level											
178												
179	Assuming Normal Distribution											
180	95% Normal UCL					95% UCLs (Adjusted for Skewness)						
181	95% Student's-t UCL				67.36	95% Adjusted-CLT UCL (Chen-1995)				71.53		
182						95% Modified-t UCL (Johnson-1978)				68.12		
183												
184	Gamma GOF Test											
185	A-D Test Statistic				0.941	Anderson-Darling Gamma GOF Test						
186	5% A-D Critical Value				0.76	Data Not Gamma Distributed at 5% Significance Level						
187	K-S Test Statistic				0.157	Kolmogorov-Smirnov Gamma GOF Test						
188	5% K-S Critical Value				0.177	Detected data appear Gamma Distributed at 5% Significance Level						
189	Detected data follow Appr. Gamma Distribution at 5% Significance Level											
190												
191	Gamma Statistics											
192	k hat (MLE)				1.679	k star (bias corrected MLE)				1.504		
193	Theta hat (MLE)				29.93	Theta star (bias corrected MLE)				33.4		
194	nu hat (MLE)				83.96	nu star (bias corrected)				75.21		
195	MLE Mean (bias corrected)				50.25	MLE Sd (bias corrected)				40.97		
196						Approximate Chi Square Value (0.05)				56.24		
197	Adjusted Level of Significance				0.0395	Adjusted Chi Square Value				55.12		
198												

199	Assuming Gamma Distribution										
200	95% Approximate Gamma UCL				67.2	95% Adjusted Gamma UCL				68.57	
201											
202	Lognormal GOF Test										
203	Shapiro Wilk Test Statistic				0.952	Shapiro Wilk Lognormal GOF Test					
204	10% Shapiro Wilk Critical Value				0.931	Data appear Lognormal at 10% Significance Level					
205	Lilliefors Test Statistic				0.118	Lilliefors Lognormal GOF Test					
206	10% Lilliefors Critical Value				0.159	Data appear Lognormal at 10% Significance Level					
207	Data appear Lognormal at 10% Significance Level										
208											
209	Lognormal Statistics										
210	Minimum of Logged Data				2.361	Mean of logged Data				3.591	
211	Maximum of Logged Data				5.338	SD of logged Data				0.776	
212											
213	Assuming Lognormal Distribution										
214	95% H-UCL				69.71	90% Chebyshev (MVUE) UCL				72.74	
215	95% Chebyshev (MVUE) UCL				83.84	97.5% Chebyshev (MVUE) UCL				99.23	
216	99% Chebyshev (MVUE) UCL				129.5						
217											
218	Nonparametric Distribution Free UCL Statistics										
219	Data appear to follow a Discernible Distribution										
220											
221	Nonparametric Distribution Free UCLs										
222	95% CLT UCL				66.7	95% BCA Bootstrap UCL				72.82	
223	95% Standard Bootstrap UCL				66.15	95% Bootstrap-t UCL				78.99	
224	95% Hall's Bootstrap UCL				81.68	95% Percentile Bootstrap UCL				67.48	
225	90% Chebyshev(Mean, Sd) UCL				80.26	95% Chebyshev(Mean, Sd) UCL				93.86	
226	97.5% Chebyshev(Mean, Sd) UCL				112.7	99% Chebyshev(Mean, Sd) UCL				149.8	
227											
228	Suggested UCL to Use										
229	95% Adjusted Gamma UCL				68.57						
230											
231	When a data set follows an approximate distribution passing only one of the GOF tests,										
232	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL										
233											
234	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
235	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
236	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
237											
238											
239	Lead										
240											
241	General Statistics										
242	Total Number of Observations				80	Number of Distinct Observations				76	
243						Number of Missing Observations				10	
244	Minimum				3.29	Mean				91.86	
245	Maximum				501	Median				57.8	
246	SD				90.35	Std. Error of Mean				10.1	
247	Coefficient of Variation				0.984	Skewness				1.872	
248											
249	Normal GOF Test										
250	Shapiro Wilk Test Statistic				0.826	Shapiro Wilk GOF Test					
251	1% Shapiro Wilk P Value				3.277E-13	Data Not Normal at 1% Significance Level					
252	Lilliefors Test Statistic				0.173	Lilliefors GOF Test					
253	1% Lilliefors Critical Value				0.115	Data Not Normal at 1% Significance Level					
254	Data Not Normal at 1% Significance Level										
255											
256	Assuming Normal Distribution										
257	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
258	95% Student's-t UCL				108.7	95% Adjusted-CLT UCL (Chen-1995)				110.7	
259						95% Modified-t UCL (Johnson-1978)				109	
260											
261	Gamma GOF Test										
262	A-D Test Statistic				0.328	Anderson-Darling Gamma GOF Test					
263	5% A-D Critical Value				0.78	Detected data appear Gamma Distributed at 5% Significance Level					
264	K-S Test Statistic				0.0635	Kolmogorov-Smirnov Gamma GOF Test					
265	5% K-S Critical Value				0.103	Detected data appear Gamma Distributed at 5% Significance Level					

	A	B	C	D	E	F	G	H	I	J	K	L
266	Detected data appear Gamma Distributed at 5% Significance Level											
267												
268	Gamma Statistics											
269	k hat (MLE)				1.093	k star (bias corrected MLE)				1.06		
270	Theta hat (MLE)				84.08	Theta star (bias corrected MLE)				86.67		
271	nu hat (MLE)				174.8	nu star (bias corrected)				169.6		
272	MLE Mean (bias corrected)				91.86	MLE Sd (bias corrected)				89.23		
273						Approximate Chi Square Value (0.05)				140.5		
274	Adjusted Level of Significance				0.047	Adjusted Chi Square Value				140		
275												
276	Assuming Gamma Distribution											
277	95% Approximate Gamma UCL				110.9	95% Adjusted Gamma UCL				111.3		
278												
279	Lognormal GOF Test											
280	Shapiro Wilk Test Statistic				0.957	Shapiro Wilk Lognormal GOF Test						
281	10% Shapiro Wilk P Value				0.0304	Data Not Lognormal at 10% Significance Level						
282	Lilliefors Test Statistic				0.0906	Lilliefors Lognormal GOF Test						
283	10% Lilliefors Critical Value				0.0907	Data appear Lognormal at 10% Significance Level						
284	Data appear Approximate Lognormal at 10% Significance Level											
285												
286	Lognormal Statistics											
287	Minimum of Logged Data				1.191	Mean of logged Data				3.997		
288	Maximum of Logged Data				6.217	SD of logged Data				1.142		
289												
290	Assuming Lognormal Distribution											
291	95% H-UCL				142.4	90% Chebyshev (MVUE) UCL				152.1		
292	95% Chebyshev (MVUE) UCL				174.3	97.5% Chebyshev (MVUE) UCL				205.2		
293	99% Chebyshev (MVUE) UCL				265.7							
294												
295	Nonparametric Distribution Free UCL Statistics											
296	Data appear to follow a Discernible Distribution											
297												
298	Nonparametric Distribution Free UCLs											
299	95% CLT UCL				108.5	95% BCA Bootstrap UCL				110.2		
300	95% Standard Bootstrap UCL				107.9	95% Bootstrap-t UCL				110.5		
301	95% Hall's Bootstrap UCL				110.6	95% Percentile Bootstrap UCL				108.4		
302	90% Chebyshev(Mean, Sd) UCL				122.2	95% Chebyshev(Mean, Sd) UCL				135.9		
303	97.5% Chebyshev(Mean, Sd) UCL				154.9	99% Chebyshev(Mean, Sd) UCL				192.4		
304												
305	Suggested UCL to Use											
306	95% Approximate Gamma UCL				110.9							
307												
308	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
309	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
310	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
311												
312												
313	Vanadium											
314												
315	General Statistics											
316	Total Number of Observations				25	Number of Distinct Observations				22		
317						Number of Missing Observations				65		
318	Minimum				16.5	Mean				30.32		
319	Maximum				55.3	Median				28.4		
320	SD				11.07	Std. Error of Mean				2.213		
321	Coefficient of Variation				0.365	Skewness				0.932		
322												
323	Normal GOF Test											
324	Shapiro Wilk Test Statistic				0.89	Shapiro Wilk GOF Test						
325	1% Shapiro Wilk Critical Value				0.886	Data appear Normal at 1% Significance Level						
326	Lilliefors Test Statistic				0.171	Lilliefors GOF Test						
327	1% Lilliefors Critical Value				0.201	Data appear Normal at 1% Significance Level						
328	Data appear Normal at 1% Significance Level											
329												

A	B	C	D	E	F	G	H	I	J	K	L
330	Assuming Normal Distribution										
331	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
332	95% Student's-t UCL				34.1	95% Adjusted-CLT UCL (Chen-1995)					34.4
333						95% Modified-t UCL (Johnson-1978)					34.17
334											
335	Gamma GOF Test										
336	A-D Test Statistic				0.627	Anderson-Darling Gamma GOF Test					
337	5% A-D Critical Value				0.745	Detected data appear Gamma Distributed at 5% Significance Level					
338	K-S Test Statistic				0.135	Kolmogorov-Smirnov Gamma GOF Test					
339	5% K-S Critical Value				0.175	Detected data appear Gamma Distributed at 5% Significance Level					
340	Detected data appear Gamma Distributed at 5% Significance Level										
341											
342	Gamma Statistics										
343	k hat (MLE)				8.682	k star (bias corrected MLE)					7.667
344	Theta hat (MLE)				3.492	Theta star (bias corrected MLE)					3.954
345	nu hat (MLE)				434.1	nu star (bias corrected)					383.3
346	MLE Mean (bias corrected)				30.32	MLE Sd (bias corrected)					10.95
347						Approximate Chi Square Value (0.05)					339
348	Adjusted Level of Significance				0.0395	Adjusted Chi Square Value					336.1
349											
350	Assuming Gamma Distribution										
351	95% Approximate Gamma UCL				34.29	95% Adjusted Gamma UCL					34.57
352											
353	Lognormal GOF Test										
354	Shapiro Wilk Test Statistic				0.949	Shapiro Wilk Lognormal GOF Test					
355	10% Shapiro Wilk Critical Value				0.931	Data appear Lognormal at 10% Significance Level					
356	Lilliefors Test Statistic				0.124	Lilliefors Lognormal GOF Test					
357	10% Lilliefors Critical Value				0.159	Data appear Lognormal at 10% Significance Level					
358	Data appear Lognormal at 10% Significance Level										
359											
360	Lognormal Statistics										
361	Minimum of Logged Data				2.803	Mean of logged Data					3.353
362	Maximum of Logged Data				4.013	SD of logged Data					0.344
363											
364	Assuming Lognormal Distribution										
365	95% H-UCL				34.51	90% Chebyshev (MVUE) UCL					36.61
366	95% Chebyshev (MVUE) UCL				39.5	97.5% Chebyshev (MVUE) UCL					43.5
367	99% Chebyshev (MVUE) UCL				51.35						
368											
369	Nonparametric Distribution Free UCL Statistics										
370	Data appear to follow a Discernible Distribution										
371											
372	Nonparametric Distribution Free UCLs										
373	95% CLT UCL				33.96	95% BCA Bootstrap UCL					34.33
374	95% Standard Bootstrap UCL				33.93	95% Bootstrap-t UCL					34.93
375	95% Hall's Bootstrap UCL				34.44	95% Percentile Bootstrap UCL					33.96
376	90% Chebyshev(Mean, Sd) UCL				36.96	95% Chebyshev(Mean, Sd) UCL					39.96
377	97.5% Chebyshev(Mean, Sd) UCL				44.14	99% Chebyshev(Mean, Sd) UCL					52.34
378											
379	Suggested UCL to Use										
380	95% Student's-t UCL				34.1						
381											
382	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
383	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
384	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
385											
386											
387	Zinc										
388											
389	General Statistics										
390	Total Number of Observations				90	Number of Distinct Observations					87
391						Number of Missing Observations					0
392	Minimum				10.1	Mean					683.5
393	Maximum				5420	Median					89.4
394	SD				1174	Std. Error of Mean					123.8
395	Coefficient of Variation				1.718	Skewness					2.179
396											

A	B	C	D	E	F	G	H	I	J	K	L
397	Normal GOF Test										
398	Shapiro Wilk Test Statistic				0.625	Shapiro Wilk GOF Test					
399	1% Shapiro Wilk P Value				0	Data Not Normal at 1% Significance Level					
400	Lilliefors Test Statistic				0.291	Lilliefors GOF Test					
401	1% Lilliefors Critical Value				0.108	Data Not Normal at 1% Significance Level					
402	Data Not Normal at 1% Significance Level										
403											
404	Assuming Normal Distribution										
405	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
406	95% Student's-t UCL				889.3	95% Adjusted-CLT UCL (Chen-1995)					917.5
407						95% Modified-t UCL (Johnson-1978)					894
408											
409	Gamma GOF Test										
410	A-D Test Statistic				4.673	Anderson-Darling Gamma GOF Test					
411	5% A-D Critical Value				0.833	Data Not Gamma Distributed at 5% Significance Level					
412	K-S Test Statistic				0.2	Kolmogorov-Smirnov Gamma GOF Test					
413	5% K-S Critical Value				0.1	Data Not Gamma Distributed at 5% Significance Level					
414	Data Not Gamma Distributed at 5% Significance Level										
415											
416	Gamma Statistics										
417	k hat (MLE)				0.44	k star (bias corrected MLE)					0.433
418	Theta hat (MLE)				1554	Theta star (bias corrected MLE)					1580
419	nu hat (MLE)				79.19	nu star (bias corrected)					77.88
420	MLE Mean (bias corrected)				683.5	MLE Sd (bias corrected)					1039
421						Approximate Chi Square Value (0.05)					58.55
422	Adjusted Level of Significance				0.0473	Adjusted Chi Square Value					58.28
423											
424	Assuming Gamma Distribution										
425	95% Approximate Gamma UCL				909.2	95% Adjusted Gamma UCL					913.4
426											
427	Lognormal GOF Test										
428	Shapiro Wilk Test Statistic				0.901	Shapiro Wilk Lognormal GOF Test					
429	10% Shapiro Wilk P Value				1.0104E-7	Data Not Lognormal at 10% Significance Level					
430	Lilliefors Test Statistic				0.135	Lilliefors Lognormal GOF Test					
431	10% Lilliefors Critical Value				0.0856	Data Not Lognormal at 10% Significance Level					
432	Data Not Lognormal at 10% Significance Level										
433											
434	Lognormal Statistics										
435	Minimum of Logged Data				2.313	Mean of logged Data					5.054
436	Maximum of Logged Data				8.598	SD of logged Data					1.8
437											
438	Assuming Lognormal Distribution										
439	95% H-UCL				1440	90% Chebyshev (MVUE) UCL					1398
440	95% Chebyshev (MVUE) UCL				1689	97.5% Chebyshev (MVUE) UCL					2093
441	99% Chebyshev (MVUE) UCL				2885						
442											
443	Nonparametric Distribution Free UCL Statistics										
444	Data do not follow a Discernible Distribution										
445											
446	Nonparametric Distribution Free UCLs										
447	95% CLT UCL				887.1	95% BCA Bootstrap UCL					923.9
448	95% Standard Bootstrap UCL				888.4	95% Bootstrap-t UCL					935.8
449	95% Hall's Bootstrap UCL				919.9	95% Percentile Bootstrap UCL					896.3
450	90% Chebyshev(Mean, Sd) UCL				1055	95% Chebyshev(Mean, Sd) UCL					1223
451	97.5% Chebyshev(Mean, Sd) UCL				1457	99% Chebyshev(Mean, Sd) UCL					1915
452											
453	Suggested UCL to Use										
454	95% Student's-t UCL				889.3						
455											
456	The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.										
457	Please verify the data were collected from random locations.										
458	If the data were collected using judgmental or other non-random methods,										
459	then contact a statistician to correctly calculate UCLs.										
460											
461	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
462	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
463	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.2 5/9/2023 9:48:15 AM								
5	From File			WetlandCompleteProUCL.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Arsenic											
11												
12	General Statistics											
13	Total Number of Observations				25		Number of Distinct Observations				25	
14							Number of Missing Observations				65	
15	Number of Detects				21		Number of Non-Detects				4	
16	Number of Distinct Detects				21		Number of Distinct Non-Detects				4	
17	Minimum Detect				1.19		Minimum Non-Detect				3.41	
18	Maximum Detect				12.5		Maximum Non-Detect				4.25	
19	Variance Detects				6.154		Percent Non-Detects				16%	
20	Mean Detects				4.1		SD Detects				2.481	
21	Median Detects				3.99		CV Detects				0.605	
22	Skewness Detects				1.888		Kurtosis Detects				5.878	
23	Mean of Logged Detects				1.252		SD of Logged Detects				0.589	
24												
25	Normal GOF Test on Detects Only											
26	Shapiro Wilk Test Statistic				0.833		Shapiro Wilk GOF Test					
27	1% Shapiro Wilk Critical Value				0.873		Detected Data Not Normal at 1% Significance Level					
28	Lilliefors Test Statistic				0.153		Lilliefors GOF Test					
29	1% Lilliefors Critical Value				0.219		Detected Data appear Normal at 1% Significance Level					
30	Detected Data appear Approximate Normal at 1% Significance Level											
31												
32	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
33	KM Mean			3.81		KM Standard Error of Mean				0.486		
34	90KM SD			2.341		95% KM (BCA) UCL				4.677		
35	95% KM (t) UCL			4.642		95% KM (Percentile Bootstrap) UCL				4.672		
36	95% KM (z) UCL			4.61		95% KM Bootstrap t UCL				4.98		
37	90% KM Chebyshev UCL			5.268		95% KM Chebyshev UCL				5.929		
38	97.5% KM Chebyshev UCL			6.845		99% KM Chebyshev UCL				8.646		
39												
40	Gamma GOF Tests on Detected Observations Only											
41	A-D Test Statistic			0.367		Anderson-Darling GOF Test						
42	5% A-D Critical Value			0.749		Detected data appear Gamma Distributed at 5% Significance Level						
43	K-S Test Statistic			0.122		Kolmogorov-Smirnov GOF						
44	5% K-S Critical Value			0.191		Detected data appear Gamma Distributed at 5% Significance Level						
45	Detected data appear Gamma Distributed at 5% Significance Level											
46												
47	Gamma Statistics on Detected Data Only											
48	k hat (MLE)			3.302		k star (bias corrected MLE)				2.862		
49	Theta hat (MLE)			1.242		Theta star (bias corrected MLE)				1.433		
50	nu hat (MLE)			138.7		nu star (bias corrected)				120.2		
51	Mean (detects)			4.1								
52												

	A	B	C	D	E	F	G	H	I	J	K	L
53	Gamma ROS Statistics using Imputed Non-Detects											
54	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
55	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
56	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
57	This is especially true when the sample size is small.											
58	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
59	Minimum				1.19	Mean				3.791		
60	Maximum				12.5	Median				3.1		
61	SD				2.377	CV				0.627		
62	k hat (MLE)				3.335	k star (bias corrected MLE)				2.962		
63	Theta hat (MLE)				1.137	Theta star (bias corrected MLE)				1.28		
64	nu hat (MLE)				166.8	nu star (bias corrected)				148.1		
65	Adjusted Level of Significance (β)				0.0395							
66	Approximate Chi Square Value (148.09, α)				121	Adjusted Chi Square Value (148.09, β)				119.3		
67	95% Gamma Approximate UCL				4.641	95% Gamma Adjusted UCL				4.706		
68												
69	Estimates of Gamma Parameters using KM Estimates											
70	Mean (KM)				3.81	SD (KM)				2.341		
71	Variance (KM)				5.478	SE of Mean (KM)				0.486		
72	k hat (KM)				2.65	k star (KM)				2.359		
73	nu hat (KM)				132.5	nu star (KM)				117.9		
74	theta hat (KM)				1.438	theta star (KM)				1.615		
75	80% gamma percentile (KM)				5.593	90% gamma percentile (KM)				7.132		
76	95% gamma percentile (KM)				8.586	99% gamma percentile (KM)				11.78		
77												
78	Gamma Kaplan-Meier (KM) Statistics											
79	Approximate Chi Square Value (117.93, α)				93.85	Adjusted Chi Square Value (117.93, β)				92.39		
80	95% KM Approximate Gamma UCL				4.787	95% KM Adjusted Gamma UCL				4.863		
81												
82	Lognormal GOF Test on Detected Observations Only											
83	Shapiro Wilk Test Statistic				0.953	Shapiro Wilk GOF Test						
84	10% Shapiro Wilk Critical Value				0.923	Detected Data appear Lognormal at 10% Significance Level						
85	Lilliefors Test Statistic				0.157	Lilliefors GOF Test						
86	10% Lilliefors Critical Value				0.173	Detected Data appear Lognormal at 10% Significance Level						
87	Detected Data appear Lognormal at 10% Significance Level											
88												
89	Lognormal ROS Statistics Using Imputed Non-Detects											
90	Mean in Original Scale				3.799	Mean in Log Scale				1.179		
91	SD in Original Scale				2.372	SD in Log Scale				0.565		
92	95% t UCL (assumes normality of ROS data)				4.611	95% Percentile Bootstrap UCL				4.581		
93	95% BCA Bootstrap UCL				4.756	95% Bootstrap t UCL				4.937		
94	95% H-UCL (Log ROS)				4.81							
95												
96	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
97	KM Mean (logged)				1.172	KM Geo Mean				3.23		
98	KM SD (logged)				0.579	95% Critical H Value (KM-Log)				2.028		
99	KM Standard Error of Mean (logged)				0.124	95% H-UCL (KM -Log)				4.854		
100	KM SD (logged)				0.579	95% Critical H Value (KM-Log)				2.028		
101	KM Standard Error of Mean (logged)				0.124							
102												

	A	B	C	D	E	F	G	H	I	J	K	L
103	DL/2 Statistics											
104	DL/2 Normal						DL/2 Log-Transformed					
105	Mean in Original Scale					3.756	Mean in Log Scale					1.158
106	SD in Original Scale					2.404	SD in Log Scale					0.582
107	95% t UCL (Assumes normality)					4.579	95% H-Stat UCL					4.801
108	DL/2 is not a recommended method, provided for comparisons and historical reasons											
109												
110	Nonparametric Distribution Free UCL Statistics											
111	Detected Data appear Approximate Normal Distributed at 1% Significance Level											
112												
113	Suggested UCL to Use											
114	95% KM (t) UCL					4.642						
115												
116	When a data set follows an approximate distribution passing only one of the GOF tests,											
117	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
118												
119	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
120	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
121	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
122												
123	Cadmium											
124												
125	General Statistics											
126	Total Number of Observations					25	Number of Distinct Observations					25
127							Number of Missing Observations					65
128	Number of Detects					18	Number of Non-Detects					7
129	Number of Distinct Detects					18	Number of Distinct Non-Detects					7
130	Minimum Detect					0.387	Minimum Non-Detect					0.188
131	Maximum Detect					5.03	Maximum Non-Detect					0.727
132	Variance Detects					1.943	Percent Non-Detects					28%
133	Mean Detects					1.612	SD Detects					1.394
134	Median Detects					1.109	CV Detects					0.865
135	Skewness Detects					1.572	Kurtosis Detects					1.586
136	Mean of Logged Detects					0.176	SD of Logged Detects					0.786
137												
138	Normal GOF Test on Detects Only											
139	Shapiro Wilk Test Statistic					0.785	Shapiro Wilk GOF Test					
140	1% Shapiro Wilk Critical Value					0.858	Detected Data Not Normal at 1% Significance Level					
141	Lilliefors Test Statistic					0.218	Lilliefors GOF Test					
142	1% Lilliefors Critical Value					0.235	Detected Data appear Normal at 1% Significance Level					
143	Detected Data appear Approximate Normal at 1% Significance Level											
144												
145	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
146	KM Mean					1.217	KM Standard Error of Mean					0.27
147	90KM SD					1.312	95% KM (BCA) UCL					1.707
148	95% KM (t) UCL					1.68	95% KM (Percentile Bootstrap) UCL					1.701
149	95% KM (z) UCL					1.662	95% KM Bootstrap t UCL					1.859
150	90% KM Chebyshev UCL					2.028	95% KM Chebyshev UCL					2.395
151	97.5% KM Chebyshev UCL					2.904	99% KM Chebyshev UCL					3.905
152												

	A	B	C	D	E	F	G	H	I	J	K	L
153	Gamma GOF Tests on Detected Observations Only											
154	A-D Test Statistic				0.541	Anderson-Darling GOF Test						
155	5% A-D Critical Value				0.754	Detected data appear Gamma Distributed at 5% Significance Level						
156	K-S Test Statistic				0.137	Kolmogorov-Smirnov GOF						
157	5% K-S Critical Value				0.207	Detected data appear Gamma Distributed at 5% Significance Level						
158	Detected data appear Gamma Distributed at 5% Significance Level											
159												
160	Gamma Statistics on Detected Data Only											
161	k hat (MLE)				1.809	k star (bias corrected MLE)				1.544		
162	Theta hat (MLE)				0.891	Theta star (bias corrected MLE)				1.044		
163	nu hat (MLE)				65.11	nu star (bias corrected)				55.59		
164	Mean (detects)				1.612							
165												
166	Gamma ROS Statistics using Imputed Non-Detects											
167	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
168	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
169	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
170	This is especially true when the sample size is small.											
171	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
172	Minimum				0.01	Mean				1.163		
173	Maximum				5.03	Median				0.795		
174	SD				1.384	CV				1.19		
175	k hat (MLE)				0.486	k star (bias corrected MLE)				0.454		
176	Theta hat (MLE)				2.395	Theta star (bias corrected MLE)				2.562		
177	nu hat (MLE)				24.28	nu star (bias corrected)				22.7		
178	Adjusted Level of Significance (β)				0.0395							
179	Approximate Chi Square Value (22.70, α)				12.87	Adjusted Chi Square Value (22.70, β)				12.36		
180	95% Gamma Approximate UCL				2.053	95% Gamma Adjusted UCL				2.136		
181												
182	Estimates of Gamma Parameters using KM Estimates											
183	Mean (KM)				1.217	SD (KM)				1.312		
184	Variance (KM)				1.722	SE of Mean (KM)				0.27		
185	k hat (KM)				0.861	k star (KM)				0.784		
186	nu hat (KM)				43.03	nu star (KM)				39.2		
187	theta hat (KM)				1.415	theta star (KM)				1.553		
188	80% gamma percentile (KM)				1.992	90% gamma percentile (KM)				2.975		
189	95% gamma percentile (KM)				3.978	99% gamma percentile (KM)				6.351		
190												
191	Gamma Kaplan-Meier (KM) Statistics											
192	Approximate Chi Square Value (39.20, α)				25.86	Adjusted Chi Square Value (39.20, β)				25.12		
193	95% KM Approximate Gamma UCL				1.846	95% KM Adjusted Gamma UCL				1.9		
194												
195	Lognormal GOF Test on Detected Observations Only											
196	Shapiro Wilk Test Statistic				0.95	Shapiro Wilk GOF Test						
197	10% Shapiro Wilk Critical Value				0.914	Detected Data appear Lognormal at 10% Significance Level						
198	Lilliefors Test Statistic				0.0946	Lilliefors GOF Test						
199	10% Lilliefors Critical Value				0.185	Detected Data appear Lognormal at 10% Significance Level						
200	Detected Data appear Lognormal at 10% Significance Level											
201												

	A	B	C	D	E	F	G	H	I	J	K	L
202	Lognormal ROS Statistics Using Imputed Non-Detects											
203	Mean in Original Scale				1.218	Mean in Log Scale				-0.319		
204	SD in Original Scale				1.338	SD in Log Scale				1.048		
205	95% t UCL (assumes normality of ROS data)				1.676	95% Percentile Bootstrap UCL				1.673		
206	95% BCA Bootstrap UCL				1.737	95% Bootstrap t UCL				1.881		
207	95% H-UCL (Log ROS)				2.176							
208												
209	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
210	KM Mean (logged)				-0.327	KM Geo Mean				0.721		
211	KM SD (logged)				1.041	95% Critical H Value (KM-Log)				2.547		
212	KM Standard Error of Mean (logged)				0.215	95% H-UCL (KM -Log)				2.129		
213	KM SD (logged)				1.041	95% Critical H Value (KM-Log)				2.547		
214	KM Standard Error of Mean (logged)				0.215							
215												
216	DL/2 Statistics											
217	DL/2 Normal				DL/2 Log-Transformed							
218	Mean in Original Scale				1.206	Mean in Log Scale				-0.41		
219	SD in Original Scale				1.348	SD in Log Scale				1.188		
220	95% t UCL (Assumes normality)				1.668	95% H-Stat UCL				2.614		
221	DL/2 is not a recommended method, provided for comparisons and historical reasons											
222												
223	Nonparametric Distribution Free UCL Statistics											
224	Detected Data appear Approximate Normal Distributed at 1% Significance Level											
225												
226	Suggested UCL to Use											
227	95% KM (t) UCL				1.68							
228												
229	When a data set follows an approximate distribution passing only one of the GOF tests,											
230	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
231												
232	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
233	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
234	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
235												
236	Cobalt											
237												
238		General Statistics										
239	Total Number of Observations				25	Number of Distinct Observations				25		
240						Number of Missing Observations				65		
241	Number of Detects				21	Number of Non-Detects				4		
242	Number of Distinct Detects				21	Number of Distinct Non-Detects				4		
243	Minimum Detect				1.82	Minimum Non-Detect				3.41		
244	Maximum Detect				82.3	Maximum Non-Detect				4.07		
245	Variance Detects				295	Percent Non-Detects				16%		
246	Mean Detects				7.735	SD Detects				17.17		
247	Median Detects				4.64	CV Detects				2.22		
248	Skewness Detects				4.504	Kurtosis Detects				20.49		
249	Mean of Logged Detects				1.434	SD of Logged Detects				0.822		
250												
251	Normal GOF Test on Detects Only											
252	Shapiro Wilk Test Statistic				0.31	Shapiro Wilk GOF Test						
253	1% Shapiro Wilk Critical Value				0.873	Detected Data Not Normal at 1% Significance Level						
254	Lilliefors Test Statistic				0.466	Lilliefors GOF Test						
255	1% Lilliefors Critical Value				0.219	Detected Data Not Normal at 1% Significance Level						

	A	B	C	D	E	F	G	H	I	J	K	L
256	Detected Data Not Normal at 1% Significance Level											
257												
258	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
259	KM Mean				6.873	KM Standard Error of Mean				3.174		
260	90KM SD				15.49	95% KM (BCA) UCL				13.36		
261	95% KM (t) UCL				12.3	95% KM (Percentile Bootstrap) UCL				13.06		
262	95% KM (z) UCL				12.09	95% KM Bootstrap t UCL				41.66		
263	90% KM Chebyshev UCL				16.4	95% KM Chebyshev UCL				20.71		
264	97.5% KM Chebyshev UCL				26.7	99% KM Chebyshev UCL				38.46		
265												
266	Gamma GOF Tests on Detected Observations Only											
267	A-D Test Statistic				3.263	Anderson-Darling GOF Test						
268	5% A-D Critical Value				0.772	Detected Data Not Gamma Distributed at 5% Significance Level						
269	K-S Test Statistic				0.344	Kolmogorov-Smirnov GOF						
270	5% K-S Critical Value				0.195	Detected Data Not Gamma Distributed at 5% Significance Level						
271	Detected Data Not Gamma Distributed at 5% Significance Level											
272												
273	Gamma Statistics on Detected Data Only											
274	k hat (MLE)				0.95	k star (bias corrected MLE)				0.846		
275	Theta hat (MLE)				8.145	Theta star (bias corrected MLE)				9.146		
276	nu hat (MLE)				39.88	nu star (bias corrected)				35.52		
277	Mean (detects)				7.735							
278												
279	Gamma ROS Statistics using Imputed Non-Detects											
280	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
281	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
282	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
283	This is especially true when the sample size is small.											
284	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
285	Minimum				0.01	Mean				6.499		
286	Maximum				82.3	Median				2.6		
287	SD				15.94	CV				2.453		
288	k hat (MLE)				0.459	k star (bias corrected MLE)				0.43		
289	Theta hat (MLE)				14.17	Theta star (bias corrected MLE)				15.1		
290	nu hat (MLE)				22.93	nu star (bias corrected)				21.51		
291	Adjusted Level of Significance (β)				0.0395							
292	Approximate Chi Square Value (21.51, α)				11.97	Adjusted Chi Square Value (21.51, β)				11.49		
293	95% Gamma Approximate UCL				11.68	95% Gamma Adjusted UCL				12.17		
294												
295	Estimates of Gamma Parameters using KM Estimates											
296	Mean (KM)				6.873	SD (KM)				15.49		
297	Variance (KM)				239.9	SE of Mean (KM)				3.174		
298	k hat (KM)				0.197	k star (KM)				0.2		
299	nu hat (KM)				9.844	nu star (KM)				9.996		
300	theta hat (KM)				34.91	theta star (KM)				34.38		
301	80% gamma percentile (KM)				9.054	90% gamma percentile (KM)				20.79		
302	95% gamma percentile (KM)				35.42	99% gamma percentile (KM)				75.69		
303												
304	Gamma Kaplan-Meier (KM) Statistics											
305	Approximate Chi Square Value (10.00, α)				3.939	Adjusted Chi Square Value (10.00, β)				3.683		
306	95% KM Approximate Gamma UCL				17.44	95% KM Adjusted Gamma UCL				18.65		
307												

	A	B	C	D	E	F	G	H	I	J	K	L
308	Lognormal GOF Test on Detected Observations Only											
309	Shapiro Wilk Test Statistic				0.732	Shapiro Wilk GOF Test						
310	10% Shapiro Wilk Critical Value				0.923	Detected Data Not Lognormal at 10% Significance Level						
311	Lilliefors Test Statistic				0.21	Lilliefors GOF Test						
312	10% Lilliefors Critical Value				0.173	Detected Data Not Lognormal at 10% Significance Level						
313	Detected Data Not Lognormal at 10% Significance Level											
314												
315	Lognormal ROS Statistics Using Imputed Non-Detects											
316	Mean in Original Scale				6.893	Mean in Log Scale						1.349
317	SD in Original Scale				15.8	SD in Log Scale						0.776
318	95% t UCL (assumes normality of ROS data)				12.3	95% Percentile Bootstrap UCL						13.12
319	95% BCA Bootstrap UCL				16.41	95% Bootstrap t UCL						42.03
320	95% H-UCL (Log ROS)				7.418							
321												
322	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
323	KM Mean (logged)				1.34	KM Geo Mean						3.818
324	KM SD (logged)				0.768	95% Critical H Value (KM-Log)						2.219
325	KM Standard Error of Mean (logged)				0.158	95% H-UCL (KM -Log)						7.264
326	KM SD (logged)				0.768	95% Critical H Value (KM-Log)						2.219
327	KM Standard Error of Mean (logged)				0.158							
328												
329	DL/2 Statistics											
330	DL/2 Normal				DL/2 Log-Transformed							
331	Mean in Original Scale				6.797	Mean in Log Scale						1.305
332	SD in Original Scale				15.83	SD in Log Scale						0.81
333	95% t UCL (Assumes normality)				12.21	95% H-Stat UCL						7.443
334	DL/2 is not a recommended method, provided for comparisons and historical reasons											
335												
336	Nonparametric Distribution Free UCL Statistics											
337	Data do not follow a Discernible Distribution											
338												
339	Suggested UCL to Use											
340	95% KM (t) UCL				12.3							
341												
342	The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.											
343	Please verify the data were collected from random locations.											
344	If the data were collected using judgmental or other non-random methods,											
345	then contact a statistician to correctly calculate UCLs.											
346												
347	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
348	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
349	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
350												

	A	B	C	D	E	F	G	H	I	J	K	L
351	Nickel											
352												
353	General Statistics											
354	Total Number of Observations					25	Number of Distinct Observations					25
355							Number of Missing Observations					65
356	Number of Detects					20	Number of Non-Detects					5
357	Number of Distinct Detects					20	Number of Distinct Non-Detects					5
358	Minimum Detect					6.12	Minimum Non-Detect					3.61
359	Maximum Detect					51.4	Maximum Non-Detect					8.14
360	Variance Detects					156.8	Percent Non-Detects					20%
361	Mean Detects					16.86	SD Detects					12.52
362	Median Detects					12.85	CV Detects					0.743
363	Skewness Detects					1.904	Kurtosis Detects					3.359
364	Mean of Logged Detects					2.627	SD of Logged Detects					0.614
365												
366	Normal GOF Test on Detects Only											
367	Shapiro Wilk Test Statistic					0.761	Shapiro Wilk GOF Test					
368	1% Shapiro Wilk Critical Value					0.868	Detected Data Not Normal at 1% Significance Level					
369	Lilliefors Test Statistic					0.195	Lilliefors GOF Test					
370	1% Lilliefors Critical Value					0.223	Detected Data appear Normal at 1% Significance Level					
371	Detected Data appear Approximate Normal at 1% Significance Level											
372												
373	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
374	KM Mean					14.42	KM Standard Error of Mean					2.461
375	90KM SD					11.98	95% KM (BCA) UCL					18.52
376	95% KM (t) UCL					18.63	95% KM (Percentile Bootstrap) UCL					18.65
377	95% KM (z) UCL					18.47	95% KM Bootstrap t UCL					21.28
378	90% KM Chebyshev UCL					21.8	95% KM Chebyshev UCL					25.15
379	97.5% KM Chebyshev UCL					29.79	99% KM Chebyshev UCL					38.9
380												
381	Gamma GOF Tests on Detected Observations Only											
382	A-D Test Statistic					0.652	Anderson-Darling GOF Test					
383	5% A-D Critical Value					0.749	Detected data appear Gamma Distributed at 5% Significance Level					
384	K-S Test Statistic					0.139	Kolmogorov-Smirnov GOF					
385	5% K-S Critical Value					0.195	Detected data appear Gamma Distributed at 5% Significance Level					
386	Detected data appear Gamma Distributed at 5% Significance Level											
387												
388	Gamma Statistics on Detected Data Only											
389	k hat (MLE)					2.676	k star (bias corrected MLE)					2.308
390	Theta hat (MLE)					6.301	Theta star (bias corrected MLE)					7.306
391	nu hat (MLE)					107	nu star (bias corrected)					92.32
392	Mean (detects)					16.86						
393												

	A	B	C	D	E	F	G	H	I	J	K	L
394	Gamma ROS Statistics using Imputed Non-Detects											
395	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
396	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
397	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
398	This is especially true when the sample size is small.											
399	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
400	Minimum				0.01	Mean				13.57		
401	Maximum				51.4	Median				10.2		
402	SD				13.01	CV				0.959		
403	k hat (MLE)				0.585	k star (bias corrected MLE)				0.542		
404	Theta hat (MLE)				23.19	Theta star (bias corrected MLE)				25.05		
405	nu hat (MLE)				29.27	nu star (bias corrected)				27.09		
406	Adjusted Level of Significance (β)				0.0395							
407	Approximate Chi Square Value (27.09, α)				16.22	Adjusted Chi Square Value (27.09, β)				15.65		
408	95% Gamma Approximate UCL				22.66	95% Gamma Adjusted UCL				23.5		
409												
410	Estimates of Gamma Parameters using KM Estimates											
411	Mean (KM)				14.42	SD (KM)				11.98		
412	Variance (KM)				143.5	SE of Mean (KM)				2.461		
413	k hat (KM)				1.449	k star (KM)				1.302		
414	nu hat (KM)				72.47	nu star (KM)				65.1		
415	theta hat (KM)				9.949	theta star (KM)				11.07		
416	80% gamma percentile (KM)				22.65	90% gamma percentile (KM)				31.11		
417	95% gamma percentile (KM)				39.4	99% gamma percentile (KM)				58.31		
418												
419	Gamma Kaplan-Meier (KM) Statistics											
420	Approximate Chi Square Value (65.10, α)				47.54	Adjusted Chi Square Value (65.10, β)				46.51		
421	95% KM Approximate Gamma UCL				19.75	95% KM Adjusted Gamma UCL				20.18		
422												
423	Lognormal GOF Test on Detected Observations Only											
424	Shapiro Wilk Test Statistic				0.94	Shapiro Wilk GOF Test						
425	10% Shapiro Wilk Critical Value				0.92	Detected Data appear Lognormal at 10% Significance Level						
426	Lilliefors Test Statistic				0.117	Lilliefors GOF Test						
427	10% Lilliefors Critical Value				0.176	Detected Data appear Lognormal at 10% Significance Level						
428	Detected Data appear Lognormal at 10% Significance Level											
429												
430	Lognormal ROS Statistics Using Imputed Non-Detects											
431	Mean in Original Scale				14.32	Mean in Log Scale				2.38		
432	SD in Original Scale				12.3	SD in Log Scale				0.75		
433	95% t UCL (assumes normality of ROS data)				18.53	95% Percentile Bootstrap UCL				18.45		
434	95% BCA Bootstrap UCL				19.18	95% Bootstrap t UCL				20.8		
435	95% H-UCL (Log ROS)				20.04							
436												
437	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
438	KM Mean (logged)				2.4	KM Geo Mean				11.02		
439	KM SD (logged)				0.713	95% Critical H Value (KM-Log)				2.159		
440	KM Standard Error of Mean (logged)				0.149	95% H-UCL (KM -Log)				19.47		
441	KM SD (logged)				0.713	95% Critical H Value (KM-Log)				2.159		
442	KM Standard Error of Mean (logged)				0.149							
443												

	A	B	C	D	E	F	G	H	I	J	K	L	
444	DL/2 Statistics												
445	DL/2 Normal					DL/2 Log-Transformed							
446	Mean in Original Scale					14.09	Mean in Log Scale					2.31	
447	SD in Original Scale					12.5	SD in Log Scale					0.862	
448	95% t UCL (Assumes normality)					18.37	95% H-Stat UCL					22	
449	DL/2 is not a recommended method, provided for comparisons and historical reasons												
450													
451	Nonparametric Distribution Free UCL Statistics												
452	Detected Data appear Approximate Normal Distributed at 1% Significance Level												
453													
454	Suggested UCL to Use												
455	95% KM (t) UCL					18.63							
456													
457	When a data set follows an approximate distribution passing only one of the GOF tests,												
458	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL												
459													
460	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.												
461	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.												
462	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.												
463													
464	Beryllium												
465													
466	General Statistics												
467	Total Number of Observations					25	Number of Distinct Observations					25	
468							Number of Missing Observations					65	
469	Number of Detects					4	Number of Non-Detects					21	
470	Number of Distinct Detects					4	Number of Distinct Non-Detects					21	
471	Minimum Detect					0.262	Minimum Non-Detect					0.188	
472	Maximum Detect					0.57	Maximum Non-Detect					2.1	
473	Variance Detects					0.0197	Percent Non-Detects					84%	
474	Mean Detects					0.395	SD Detects					0.14	
475	Median Detects					0.373	CV Detects					0.356	
476	Skewness Detects					0.586	Kurtosis Detects					-2.048	
477	Mean of Logged Detects					-0.977	SD of Logged Detects					0.355	
478													
479	Normal GOF Test on Detects Only												
480	Shapiro Wilk Test Statistic					0.936	Shapiro Wilk GOF Test						
481	1% Shapiro Wilk Critical Value					0.687	Detected Data appear Normal at 1% Significance Level						
482	Lilliefors Test Statistic					0.243	Lilliefors GOF Test						
483	1% Lilliefors Critical Value					0.413	Detected Data appear Normal at 1% Significance Level						
484	Detected Data appear Normal at 1% Significance Level												
485	Note GOF tests may be unreliable for small sample sizes												
486													
487	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs												
488	KM Mean					0.27	KM Standard Error of Mean					0.0374	
489	90KM SD					0.107	95% KM (BCA) UCL					N/A	
490	95% KM (t) UCL					0.334	95% KM (Percentile Bootstrap) UCL					N/A	
491	95% KM (z) UCL					0.332	95% KM Bootstrap t UCL					N/A	
492	90% KM Chebyshev UCL					0.382	95% KM Chebyshev UCL					0.433	
493	97.5% KM Chebyshev UCL					0.504	99% KM Chebyshev UCL					0.642	
494													

	A	B	C	D	E	F	G	H	I	J	K	L
495	Gamma GOF Tests on Detected Observations Only											
496	A-D Test Statistic				0.289	Anderson-Darling GOF Test						
497	5% A-D Critical Value				0.657	Detected data appear Gamma Distributed at 5% Significance Level						
498	K-S Test Statistic				0.266	Kolmogorov-Smirnov GOF						
499	5% K-S Critical Value				0.395	Detected data appear Gamma Distributed at 5% Significance Level						
500	Detected data appear Gamma Distributed at 5% Significance Level											
501	Note GOF tests may be unreliable for small sample sizes											
502												
503	Gamma Statistics on Detected Data Only											
504	k hat (MLE)				10.74	k star (bias corrected MLE)						2.85
505	Theta hat (MLE)				0.0367	Theta star (bias corrected MLE)						0.138
506	nu hat (MLE)				85.88	nu star (bias corrected)						22.8
507	Mean (detects)				0.395							
508												
509	Gamma ROS Statistics using Imputed Non-Detects											
510	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
511	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
512	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
513	This is especially true when the sample size is small.											
514	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
515	Minimum				0.105	Mean						0.224
516	Maximum				0.57	Median						0.214
517	SD				0.0956	CV						0.427
518	k hat (MLE)				7.962	k star (bias corrected MLE)						7.033
519	Theta hat (MLE)				0.0281	Theta star (bias corrected MLE)						0.0318
520	nu hat (MLE)				398.1	nu star (bias corrected)						351.6
521	Adjusted Level of Significance (β)				0.0395							
522	Approximate Chi Square Value (351.64, α)				309.2	Adjusted Chi Square Value (351.64, β)						306.5
523	95% Gamma Approximate UCL				0.255	95% Gamma Adjusted UCL						N/A
524												
525	Estimates of Gamma Parameters using KM Estimates											
526	Mean (KM)				0.27	SD (KM)						0.107
527	Variance (KM)				0.0114	SE of Mean (KM)						0.0374
528	k hat (KM)				6.378	k star (KM)						5.639
529	nu hat (KM)				318.9	nu star (KM)						282
530	theta hat (KM)				0.0423	theta star (KM)						0.0479
531	80% gamma percentile (KM)				0.358	90% gamma percentile (KM)						0.422
532	95% gamma percentile (KM)				0.48	99% gamma percentile (KM)						0.602
533												
534	Gamma Kaplan-Meier (KM) Statistics											
535	Approximate Chi Square Value (281.97, α)				244.1	Adjusted Chi Square Value (281.97, β)						241.7
536	95% KM Approximate Gamma UCL				0.312	95% KM Adjusted Gamma UCL						0.315
537												
538	Lognormal GOF Test on Detected Observations Only											
539	Shapiro Wilk Test Statistic				0.948	Shapiro Wilk GOF Test						
540	10% Shapiro Wilk Critical Value				0.792	Detected Data appear Lognormal at 10% Significance Level						
541	Lilliefors Test Statistic				0.229	Lilliefors GOF Test						
542	10% Lilliefors Critical Value				0.346	Detected Data appear Lognormal at 10% Significance Level						
543	Detected Data appear Lognormal at 10% Significance Level											
544	Note GOF tests may be unreliable for small sample sizes											
545												

	A	B	C	D	E	F	G	H	I	J	K	L
546	Lognormal ROS Statistics Using Imputed Non-Detects											
547	Mean in Original Scale				0.245	Mean in Log Scale				-1.446		
548	SD in Original Scale				0.0853	SD in Log Scale				0.263		
549	95% t UCL (assumes normality of ROS data)				0.274	95% Percentile Bootstrap UCL				0.276		
550	95% BCA Bootstrap UCL				0.288	95% Bootstrap t UCL				0.324		
551	95% H-UCL (Log ROS)				0.268							
552												
553	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
554	KM Mean (logged)				-1.372	KM Geo Mean				0.254		
555	KM SD (logged)				0.337	95% Critical H Value (KM-Log)				1.837		
556	KM Standard Error of Mean (logged)				0.13	95% H-UCL (KM -Log)				0.305		
557	KM SD (logged)				0.337	95% Critical H Value (KM-Log)				1.837		
558	KM Standard Error of Mean (logged)				0.13							
559	Note: KM UCLs may be biased low with this dataset. Other substitution method recommended											
560												
561	DL/2 Statistics											
562	DL/2 Normal					DL/2 Log-Transformed						
563	Mean in Original Scale				0.36	Mean in Log Scale				-1.214		
564	SD in Original Scale				0.254	SD in Log Scale				0.619		
565	95% t UCL (Assumes normality)				0.447	95% H-Stat UCL				0.467		
566	DL/2 is not a recommended method, provided for comparisons and historical reasons											
567												
568	Nonparametric Distribution Free UCL Statistics											
569	Detected Data appear Normal Distributed at 1% Significance Level											
570												
571	Suggested UCL to Use											
572	95% KM (t) UCL				0.334							
573												
574	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
575	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
576	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
577												
578	Selenium											
579												
580	General Statistics											
581	Total Number of Observations				25	Number of Distinct Observations				25		
582						Number of Missing Observations				65		
583	Number of Detects				0	Number of Non-Detects				25		
584	Number of Distinct Detects				0	Number of Distinct Non-Detects				25		
585												
586	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
587	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
588	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
589												
590	The data set for variable Selenium was not processed!											
591												
592												

	A	B	C	D	E	F	G	H	I	J	K	L
593	Thallium											
594												
595	General Statistics											
596	Total Number of Observations				25		Number of Distinct Observations				25	
597							Number of Missing Observations				65	
598	Number of Detects				0		Number of Non-Detects				25	
599	Number of Distinct Detects				0		Number of Distinct Non-Detects				25	
600												
601	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
602	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
603	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
604												
605	The data set for variable Thallium was not processed!											
606												
607												

USGS Soil Background Data

Lab ID	Site ID	State ID	Latitude	Longitude	Collection Date	Land Cover	Land Cover Subtype	Top5_Ba	Top5_Co	Top5_Tl	Top5_V	Top5_Se	D_Top5_Se*
C-353889	1274	WA	45.83	-121.0832	06/22/10	Forested Upland	Mixed Forest	528	28.6	0.3	230	0.2	0
C-353892	1722	WA	46.52	-121.6709	06/21/10	Forested Upland	Mixed Forest	269	16.3	0.2	108	0.2	0
C-353893	1822	WA	47.6905	-122.9015	07/22/10	Forested Upland	Mixed Forest	509	16.9	0.3	142	0.2	1
C-353895	2334	WA	47.9525	-124.1985	07/23/10	Forested Upland	Mixed Forest	344	4.8	0.2	71	0.4	1
C-353899	2446	WA	46.1379	-117.8107	06/11/10	Forested Upland	Mixed Forest	651	25.9	0.3	265	0.2	0
C-353903	2746	WA	47.5588	-122.0629	07/22/10	Forested Upland	Mixed Forest	416	12	0.2	89	0.2	1
C-353905	2846	WA	48.3409	-122.2894	07/21/10	Forested Upland	Mixed Forest	502	11.8	0.1	95	0.2	0
C-354245	3514	WA	46.2865	-122.7227	07/14/10	Forested Upland	Mixed Forest	400	20.8	0.2	147	0.2	0
C-353926	5370	WA	46.0734	-121.599	06/22/10	Forested Upland	Mixed Forest	278	13.3	0.2	74	0.2	0
C-353928	5406	WA	47.4644	-123.2198	07/22/10	Forested Upland	Mixed Forest	329	24.3	0.1	199	0.2	0
C-353979	6446	WA	48.6613	-121.239	07/20/10	Forested Upland	Mixed Forest	594	16.8	0.4	113	0.3	1
C-353985	6842	WA	47.1976	-121.875	07/16/10	Forested Upland	Mixed Forest	263	9.7	0.2	70	0.7	1
C-353989	7454	WA	47.96	-124.283	07/23/10	Forested Upland	Mixed Forest	366	11.4	0.3	101	0.9	1
C-353997	8014	WA	47.015	-120.7162	07/16/10	Forested Upland	Mixed Forest	522	27.2	0.2	185	0.2	0
C-353999	8334	WA	47.3742	-120.6514	07/18/10	Forested Upland	Mixed Forest	642	14.4	0.2	94	0.2	0
C-354004	8990	WA	47.8453	-121.5052	07/22/10	Forested Upland	Mixed Forest	306	8.7	0.2	77	0.4	1
C-353953	9502	WA	47.7386	-123.0724	07/22/10	Forested Upland	Mixed Forest	499	15.6	0.3	131	0.2	0
C-353958	9914	WA	47.153	-121.701	07/16/10	Forested Upland	Mixed Forest	335	17.3	0.4	92	0.7	1
C-353960	10014	WA	48.2593	-121.7082	07/21/10	Forested Upland	Mixed Forest	553	17.8	0.3	118	0.2	0
C-353961	10170	WA	46.0159	-122.7338	07/13/10	Forested Upland	Mixed Forest	247	26.9	0.1	158	0.2	0
C-353971	11310	WA	47.8739	-120.8696	07/18/10	Forested Upland	Mixed Forest	605	18.3	0.2	113	0.2	1
C-353940	12430	WA	47.8748	-120.2622	07/20/10	Forested Upland	Mixed Forest	563	12.1	0.2	87	0.2	0
C-353941	12538	WA	45.9545	-120.6654	06/22/10	Forested Upland	Mixed Forest	608	33.1	0.3	372	0.2	0
C-353946	12986	WA	46.4945	-122.0168	06/21/10	Forested Upland	Mixed Forest	341	16.2	0.2	91	0.2	0
C-353947	13086	WA	48.0885	-121.2984	07/21/10	Forested Upland	Mixed Forest	1080	11.2	0.3	123	0.3	1

Notes

Data are from the top 5 centimeters of soil.

* Selenium is the only metal in the table with undetected background concentrations. The starred column indicates which results are detects (1) and which are nondetects (0).

Ba = barium

Co = cobalt

Tl = thallium

V = vanadium

Se = selenium

USGS = United States Geological Survey

WA = Washington

APPENDIX G

Geophysical Survey Report

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

Geophysical Survey LLC
711 S Tacoma Street
Kennewick, Washington 99336

January 30, 2022

Chris Rhea
GSI Water Solutions, Inc
55 SW Yamhill Street, Suite 300
Portland, OR 97204

Re: *Seismic Survey
Eatonville Landfill
Pierce County, Washington*

Mr. Rhea:

Geophysical Survey LLC conducted a seismic survey at the Eatonville Landfill in Pierce County on January 20 & 21, 2022. The objective of the investigation was determine the depth of landfill material.

Methodology

Seismic Refraction

The seismic refraction method is based on the measurement of the travel time of seismic waves refracted at the interfaces between subsurface layers of different velocity. Seismic energy is provided by a source ('shot') located on the surface. The source of the seismic energy was a 16 lb. sledgehammer.

Energy radiates out from the shot point, either travelling directly through the upper layer (direct arrivals) or travelling down to and then laterally along higher velocity layers (refracted arrivals) before returning to the surface. This energy is detected on surface using a linear array (or spread) of geophones spaced at regular intervals. Beyond a certain distance from the shot point, known as the cross-over distance, the refracted signal is observed as a first-arrival signal at the geophones (arriving before the direct arrival). Observation of the travel-times of the direct and refracted signals provides information on the depth profile of the refractor.

Shots are deployed beyond both ends of the geophone spread in order to acquire refracted energy as first arrivals at each geophone position. Additional shots are deployed throughout the geophone spread.

Data are recorded on a seismograph and later downloaded to computer for analysis of the first-arrival times to the geophones from each shot position. Travel-time versus distance graphs are then constructed and velocities calculated for the overburden and refractor layers through analysis of the direct arrival and T-minus graph gradients. Depth profiles for each refractor are produced by an analytical procedure based on consideration of shot and receiver geometry and the measured travel-times and calculated velocities. The final

output comprises a depth profile of the refractor layers and a velocity model of the subsurface.

Seismic Surface Waves

Microtremor Array Measurements

The Microtremor Array Measurements (MAM) method is based on the change in phase velocity with frequency of seismic surface waves. Shear wave velocity (V_s) is calculated by mathematical inversion of the dispersive phase velocity of surface waves. There are multiple types of surface waves, MAM utilizes Rayleigh waves which is the dominant component of ground roll. MAM utilizes a 'passive source' for seismic energy, also referred to as 'microtremor surveying'. The sources of seismic energy are wind, wave motion or cultural noise. The seismic energy creates Rayleigh waves which are recorded over a line of receivers in a linear array linked to a seismograph.

Surface wave energy decays exponentially with depth beneath the surface. Longer wavelength data (longer period and lower frequency) surface waves travel deeper and contain more information about deeper velocity structure. MAM data is most useful for lower frequency, deeper velocity structure.

Multi-channel Analysis of Surface Waves

The Multi-channel Analysis of Surface Wave (MASW) method is based on the change in phase velocity with frequency of seismic surface waves. Shear wave velocity (V_s) is calculated by mathematical inversion of the dispersive phase velocity of surface waves. There are multiple types of surface waves, MASW utilizes Rayleigh waves which is the dominant component of ground roll. MASW utilizes an 'active source' for seismic energy that is generated at a specific location and recording begins when source energy is imparted into the ground. The seismic energy creates Rayleigh waves which are recorded over a line of receivers in a linear array linked to a seismograph.

Surface wave energy decays exponentially with depth beneath the surface. Longer wavelength data (longer period and lower frequency) surface waves travel deeper and contain more information about deeper velocity structure. MASW data is most useful for higher frequency, shallow velocity structure.

FIELD SURVEY

Mapping Control

Line shotpoints and geophones were mapped with a Trimble Pro6H GNSS (Global Navigation Satellite System) receiver with sub-foot accuracy (<12 inches).

Seismic Refraction Data Acquisition

Seismic data were recorded on twenty four 4.5 Hz geophones spaced 5 feet apart using a Geometrics ES-3000 seismic controller. Five to nine shotpoints per 24 geophone spread were collected and digitally recorded on a laptop computer.

Seismic data was interpreted using SeisImager 2D software V5.2 from Geometrics. A two layer earth model was created using a time term inversion. The time term model was used as an initial model for tomographic analysis which iteratively traces rays through the model with the goal of minimizing the RMS error between the observed and calculated traveltimes. Seismic refraction results are presented on Figures 2 & 3.

Seismic Surface Wave Acquisition

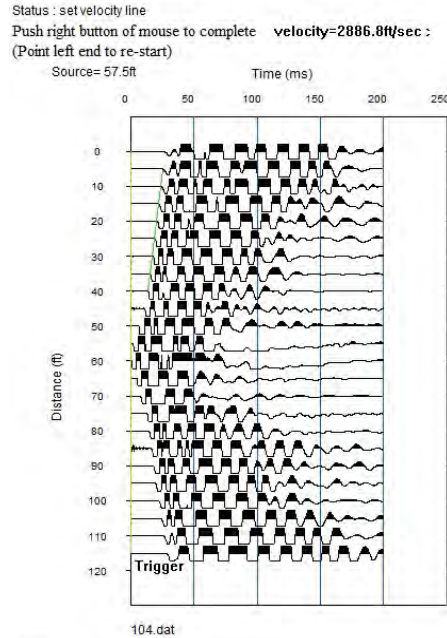
MASW data were recorded on twenty-four 4.5Hz geophones spaced 5 feet apart using a Geometrics ES-3000 seismic controller. Two shotpoints off each end of the 24 geophone spread were collected and digitally recorded on a laptop computer. Data were recorded at 0.5 millisecond intervals for 2 second records at each shot point.

MAM data were recorded on twenty-four 4.5Hz geophones spaced 5 feet apart using a Geometrics ES-3000 seismic controller. 40 records, each 32 seconds long with a 2.0 millisecond sample interval, were recorded at lines 1 & 2.

A phase velocity -frequency plot was made from MASW wave forms and phase velocities were picked on amplitude. MASW phase velocity dispersion curves were combined and used to create an initial 1-D Vs model with depth. The initial model was inverted using a least squares method to determine the best fit of the model to the data. The MASW models (Figure 4) are an average of values over the total length of the 115 foot lines.

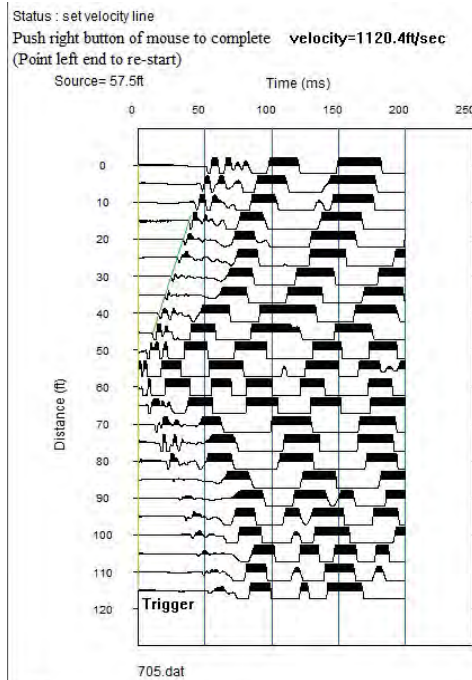
RESULTS AND INTERPRETATION

Figure 1 shows the location of the seismic refraction lines. Line 1 on Figure 3 was run outside of the landfill, near surface compression wave velocities were over 2000 feet per second. The image below, Seismic Data 1, shows a shot record taken at the middle of Line 1, the apparent velocity is approximately 2890 feet per second.



Seismic Data 1

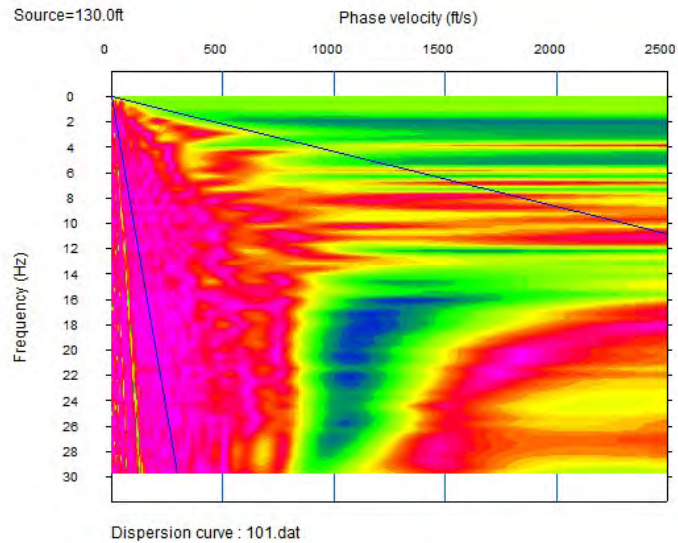
Layer 1 arrivals within the area of the landfill were slower than early arrivals on Line 1. The image below, Seismic Data 2, shows a shot record taken at the middle of Line 6. Apparent velocities are approximately 1120 feet per second.



Seismic Data 2

Shear wave velocities from MASW data were 1000 feet per second on Line 1 as shown below in image Seismic Data 3. The image is the dispersion curve showing phase-velocity plotted against frequency.

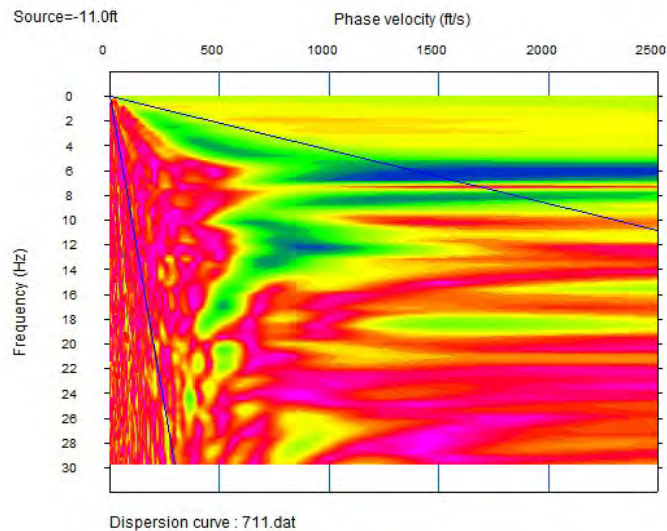
Press Enter key to continue Surface Wave Analysis Wizard.



Seismic Data 3

In the footprint of the landfill shear wave velocities dropped to 400 to 600 feet per second were recorded. The image below, Seismic Data 4, is from Line 5. The quality of the MASW data was poor due to the effects of the stream northwest of the site.

Press Enter key to continue Surface Wave Analysis Wizard.



Seismic Data 4

Microtremor data was not used in determination of shear wave values. The passive data recorded did not yield a dispersion curve, an analysis of the frequency content in the data showed large spikes in the 15 to 20 Hz range due to the water in the stream. Frequency content in the 4-10 Hz range is desirable for passive data.

Seismic Refraction Velocity (P-wave)	Interpretation
>1350 feet/second	Landfill material
<1350 feet/second	Native material

Table 1

CLOSURE

Geophysical surveys performed as part of this survey may or may not successfully detect or delineate any or all subsurface objects or features present. Locations, depths and scale of buried objects or subsurface features mapped as a result of this survey are a result of geophysical interpretation only, and should be considered as confirmed, actual, or accurate only where recovered by excavation or drilling.

Geophysical Survey LLC performed this work in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No warranty, express or implied, beyond exercise of reasonable care and professional diligence, is made. This report is intended for use only in accordance with the purposes of the study described within.

Respectfully,

Geophysical Survey LLC



Mark Villa L.G.

**Seismic Survey
Eatonville Landfill
Pierce County, Washington**

LIST OF FIGURES

Figure 1	Site Map
Figure 2	Seismic Refraction Data Contours
Figure 3	Seismic Refraction Data Contours
Figure 4	MASW Shear Wave Profiles

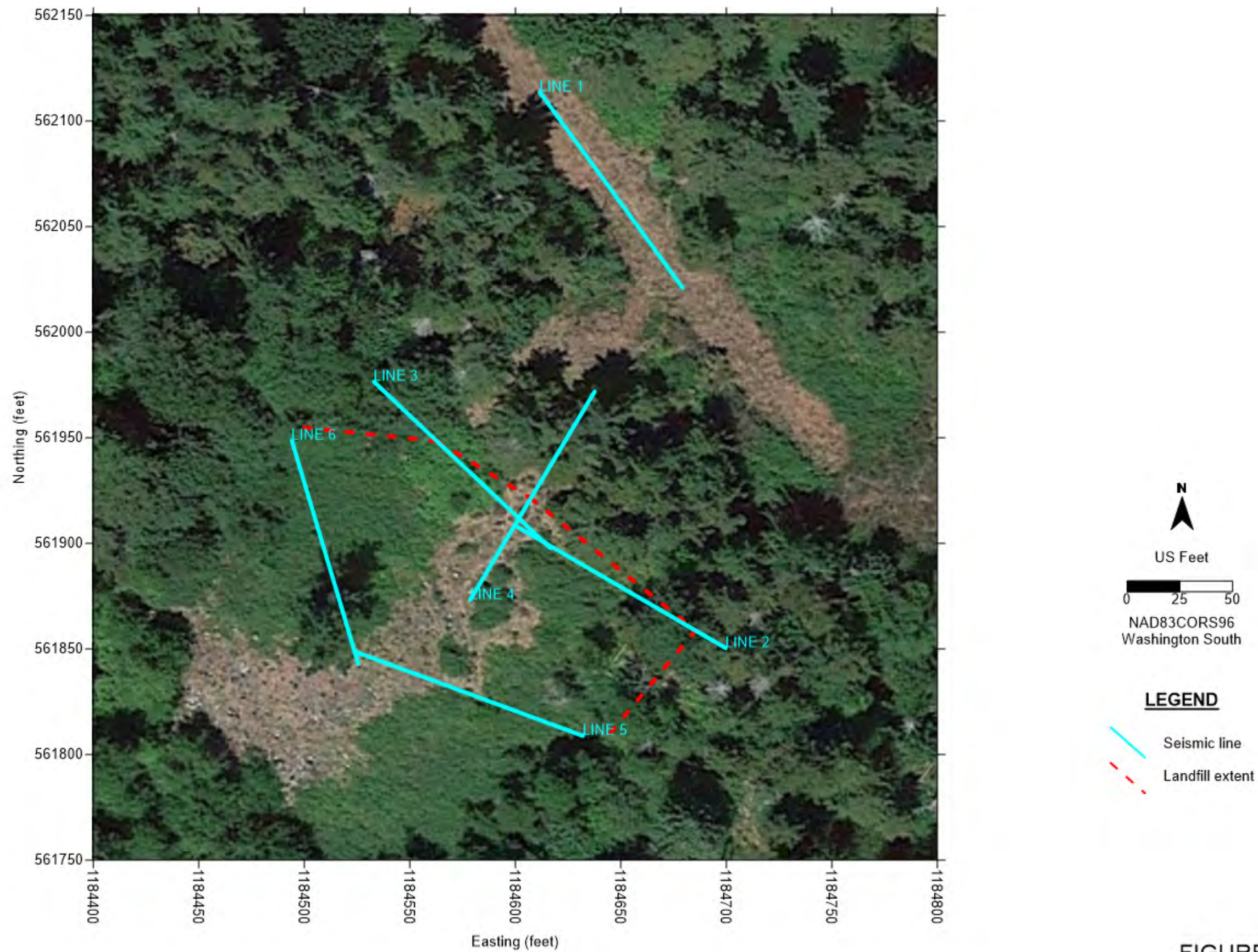
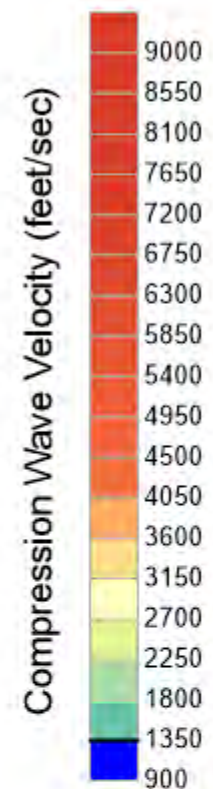
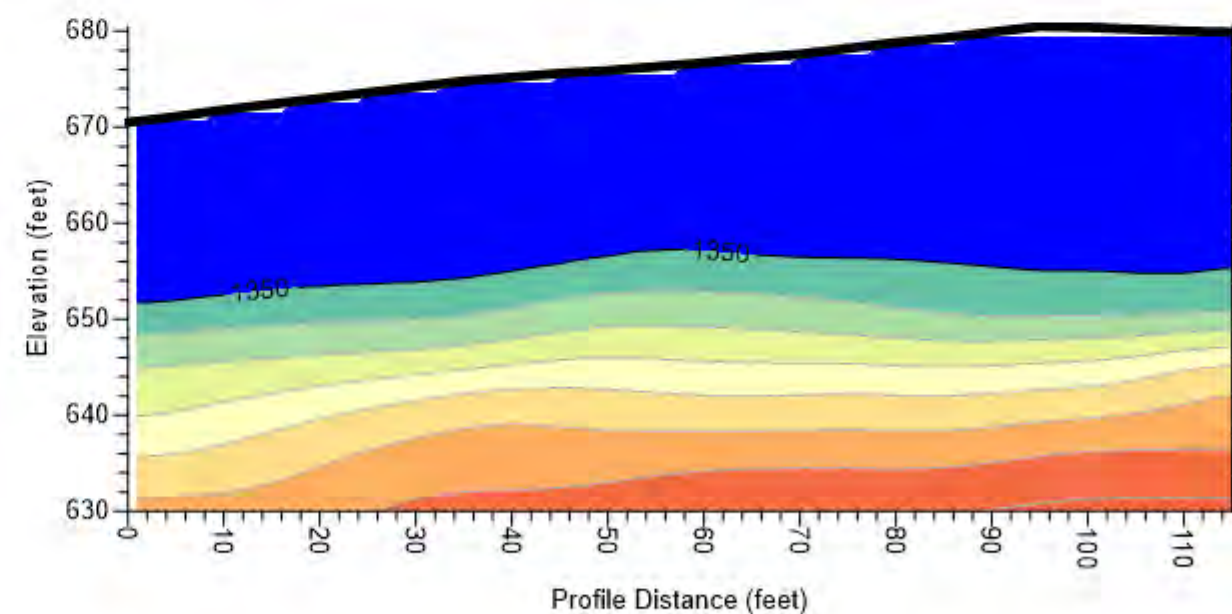
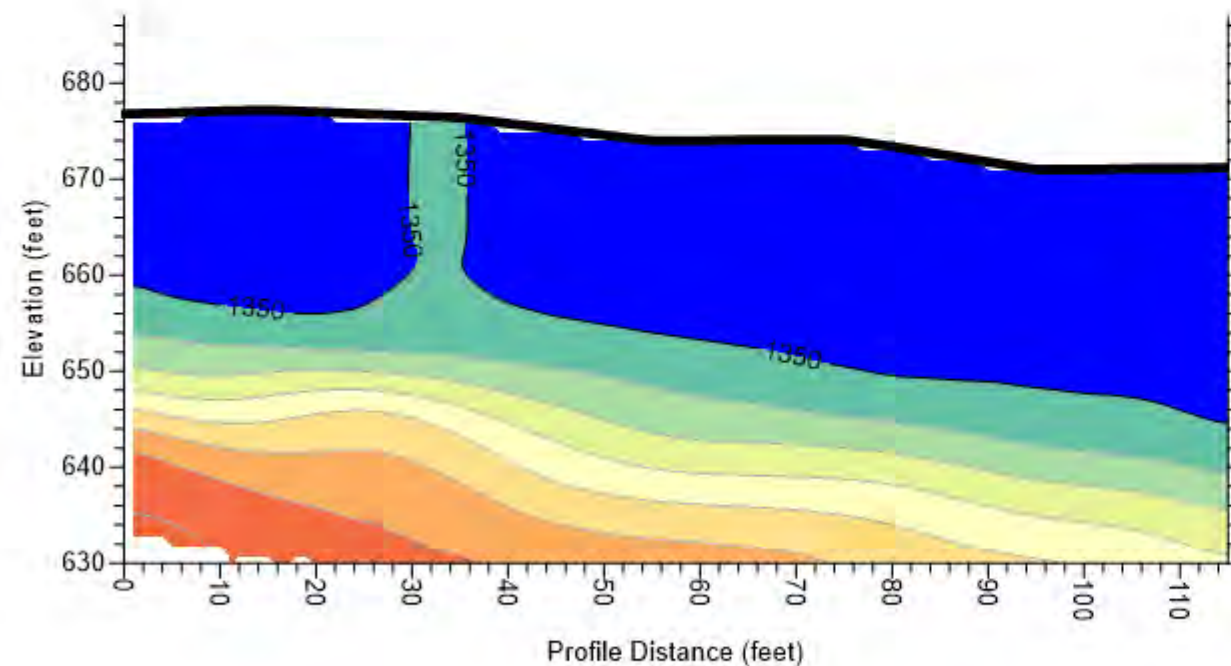
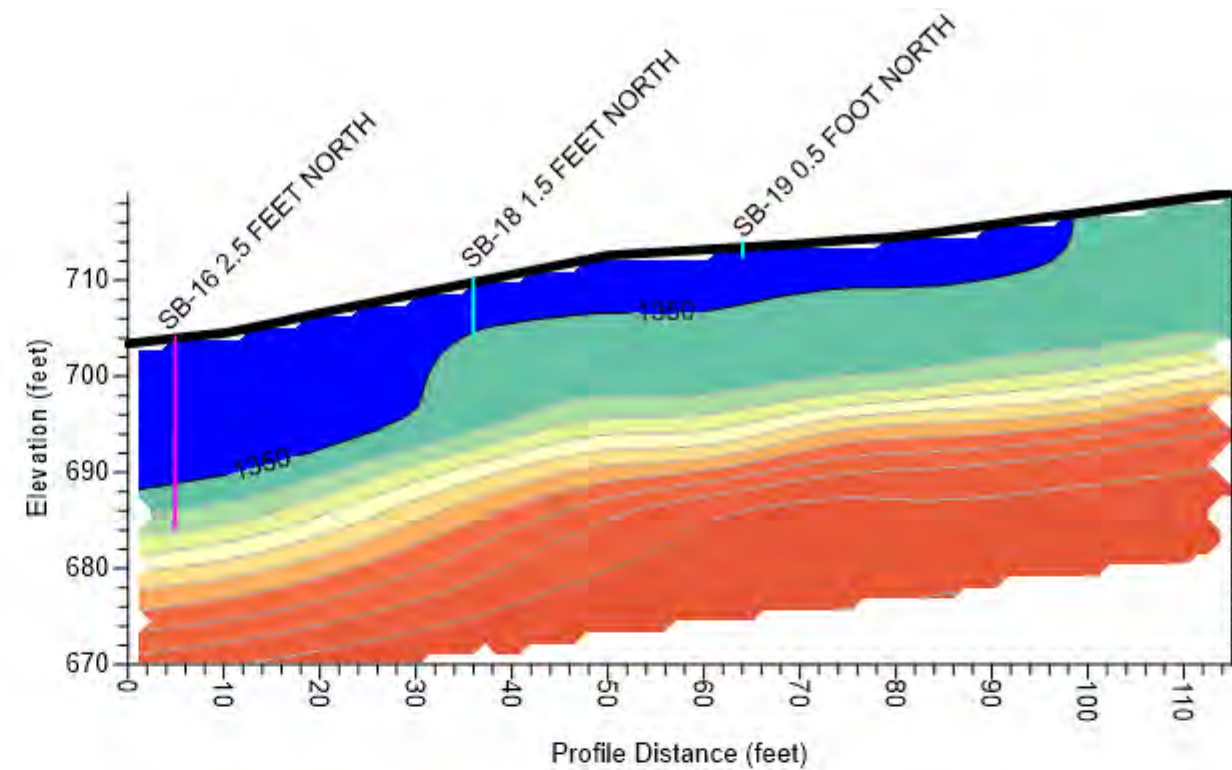
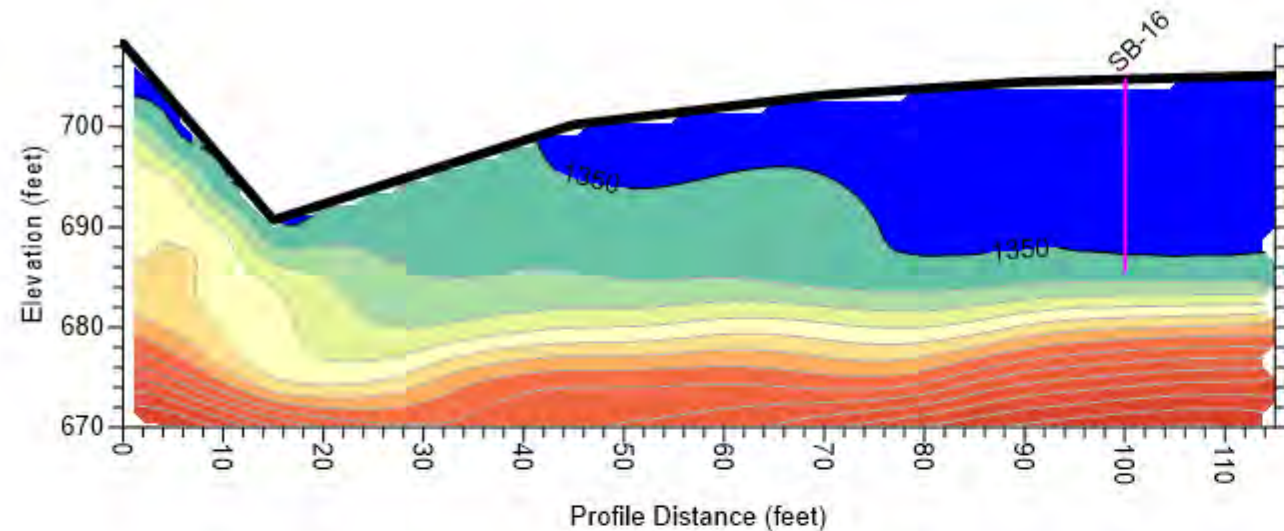


FIGURE 1
Site Map
Eatonville, WA



LEGEND

- Soil boring bottom of waste
- Soil boring

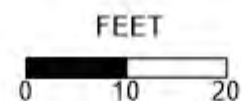
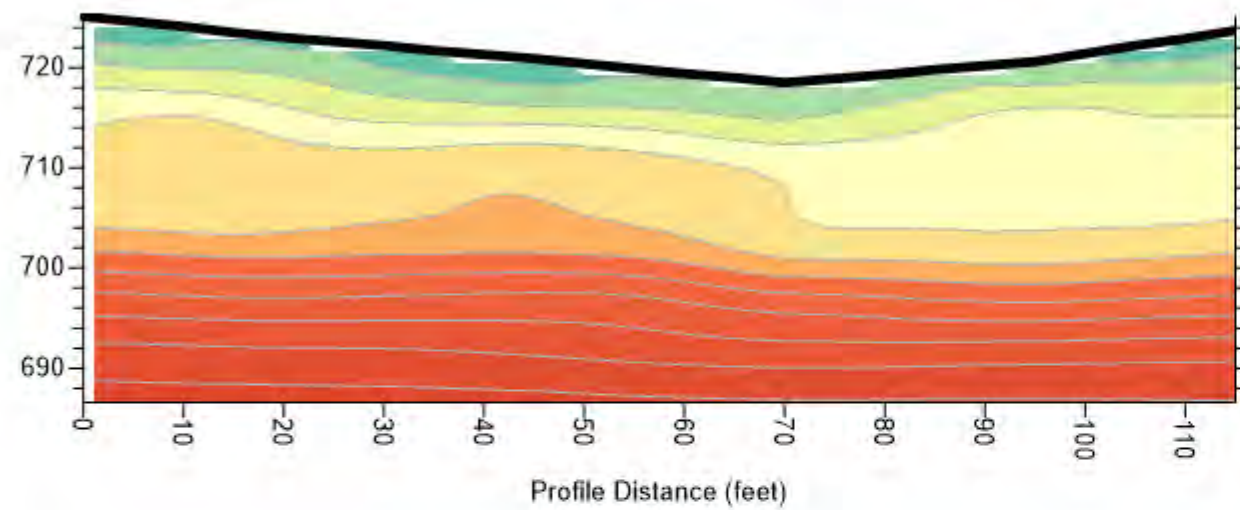
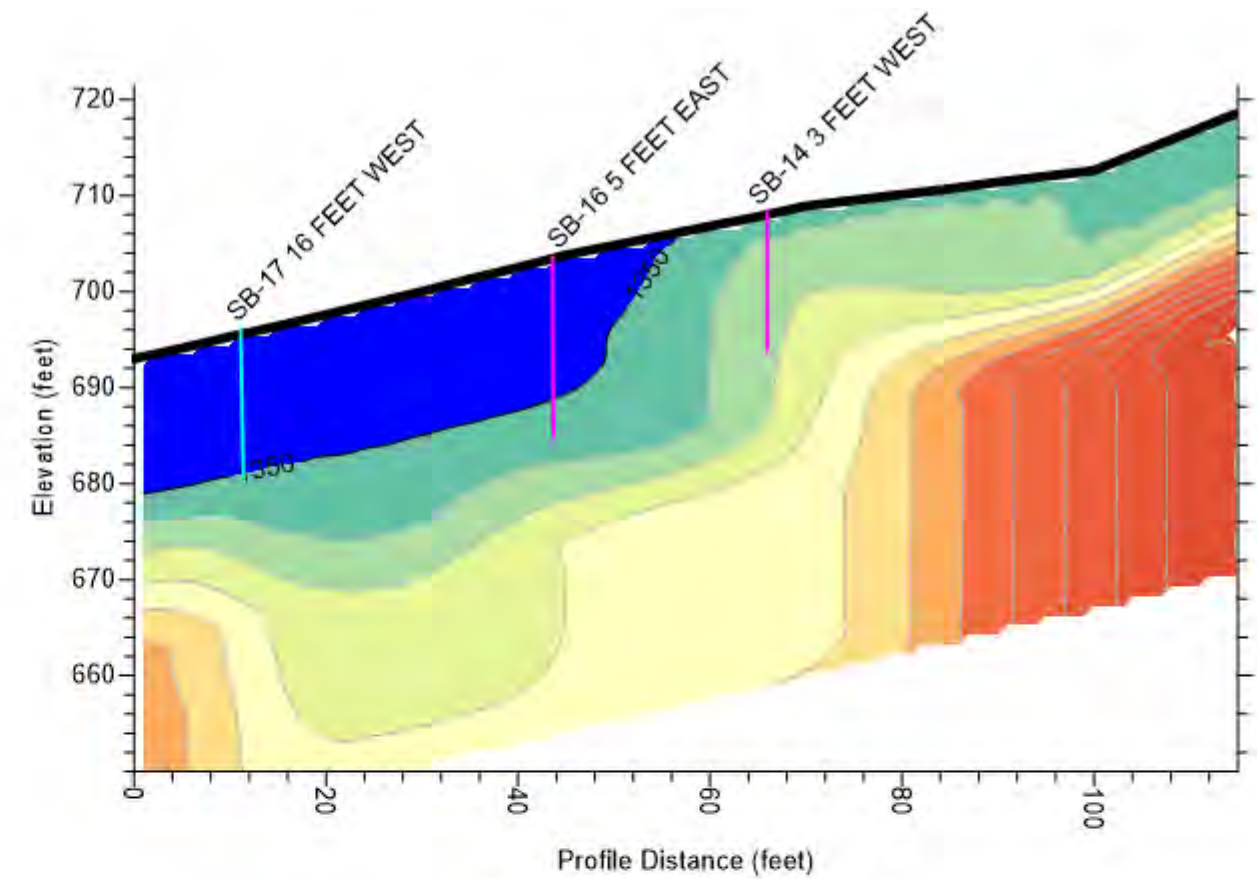


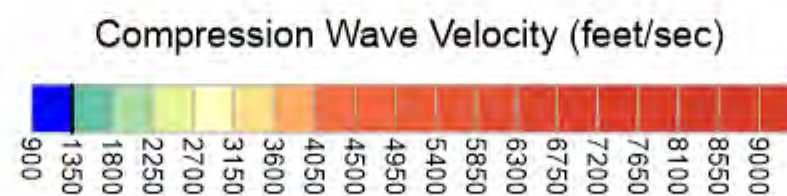
FIGURE 2
Seismic Data Profiles
Eatonville, WA



LINE 1



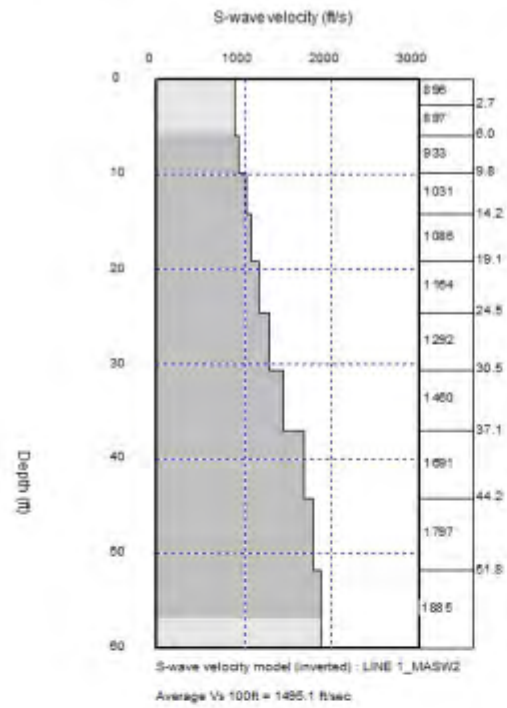
LINE 4



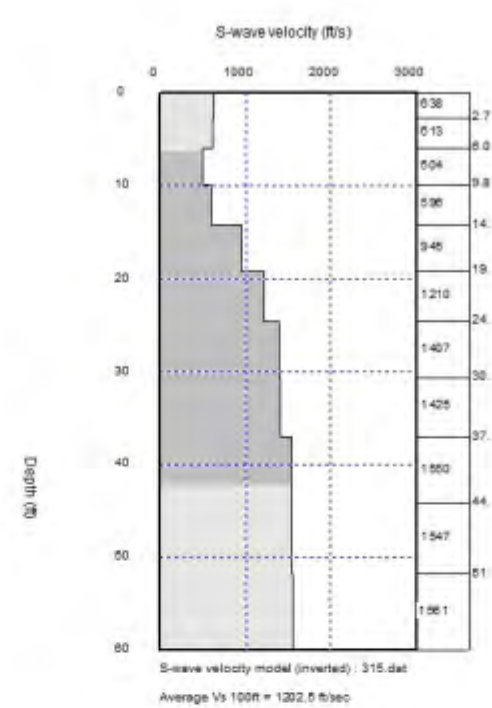
LEGEND

- Soil boring bottom of waste
- Soil boring

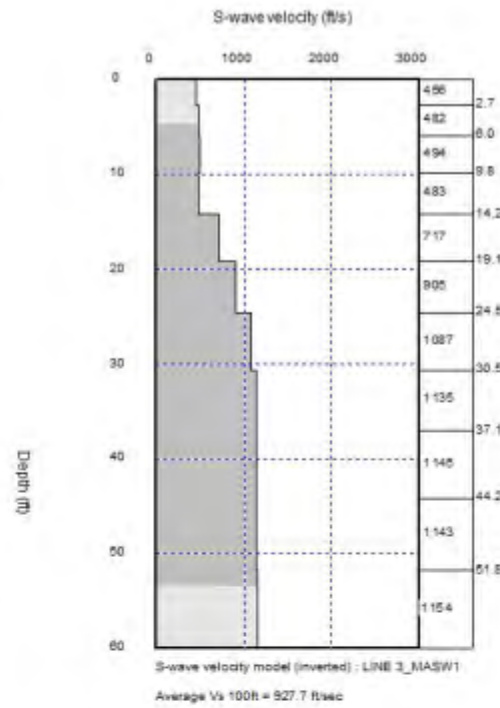
Site name :



LINE 1

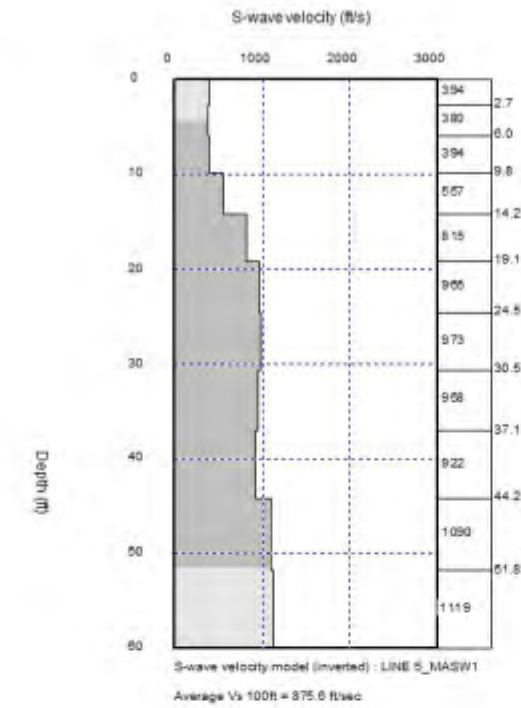


LINE 2

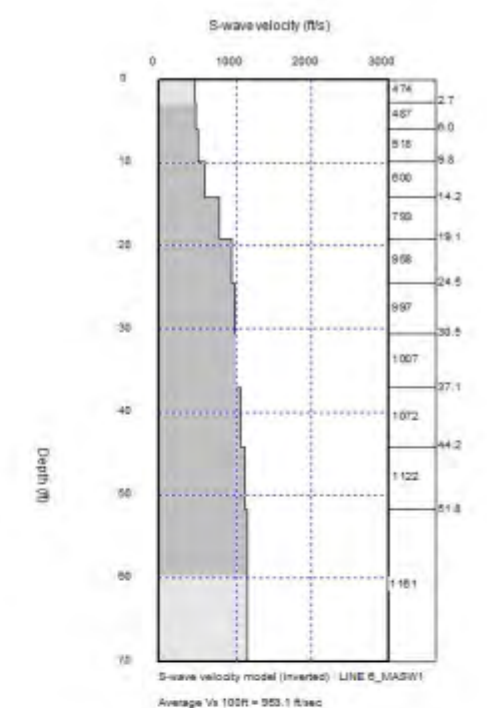


LINE 3

Site name :



LINE 5



LINE 6

APPENDIX H

Alternative Cost Estimating Tables

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

APPENDIX H. Table H1 - Landfill Area Removal Alternative Cost Estimating Table

Landfill Area Removal Costs				
	Alternative 1A: Waste and Impacted Soil Removal to Maxumum Practicable Extents		Alternative 1B: Partial Waste and Soil Removal and Capping	
Item Description	Prevailing Wage	Non-Prevailing Wage	Prevailing Wage	Non-Prevailing Wage
Pre-Construction Work				
Pre-Construction Test Pits	\$ 15,000	\$ 13,500	\$ 15,000	\$ 13,500
Engineering Design	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000
Permitting	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000
General Construction Costs				
Third Party Construction Oversight	\$ 258,165	\$ 258,165	\$ 315,175	\$ 315,175
Contractor Work Plans and Submittals	\$ 25,868	\$ 25,868	\$ 25,868	\$ 25,868
Mobilization	\$ 35,800	\$ 35,800	\$ 44,167	\$ 44,167
Demobilization	\$ 25,625	\$ 25,625	\$ 25,625	\$ 25,625
Contractor Site Management, Travel, and Per diems	\$ 625,300	\$ 625,300	\$ 769,900	\$ 769,900
Construction Site Facilities/General Support Equipment & Materials	\$ 108,504	\$ 108,504	\$ 135,630	\$ 135,630
Surveys				
Pre-Construction Survey	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
Intermediate Surveys	\$ -	\$ -	\$ 25,000	\$ 25,000
As-Built Survey	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Site Preparation and Temporary Construction				
Site Preparation (clearing and grubbing, laydown area, access roads)	\$ 85,512	\$ 57,690	\$ 85,512	\$ 57,690
Landfill Remediation and Transportation & Disposal				
Excavate & Loadout Landfill Materials and Soil	\$ 679,920	\$ 470,640	\$ 353,400	\$ 249,000
Segregate Waste Streams	\$ 126,720	\$ 87,360	\$ 63,360	\$ 43,680
Transport & Dispose of Tires	\$ 15,700	\$ 15,700	\$ 15,700	\$ 15,700
Soil Removal (soil below landfill waste. Assume 1.0 ft scrape)	\$ 63,991	\$ 44,307	\$ -	\$ -
Confirmation Sampling	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Landfill Footprint Restoration				
Screen, Place, and Compact Onsite Material (to be used at toe of slope)	\$ 36,370	\$ 26,185	\$ -	\$ -
Import Topsoil (purchased and delivered)	\$ 178,500	\$ 178,500	\$ 158,100	\$ 158,100
Finish Grade & Place Topsoil	\$ 232,683	\$ 161,481	\$ 312,466	\$ 216,892
Install Stormwater Drainage System for Hillside (including materials)	\$ 133,573	\$ 98,117	\$ 133,573	\$ 98,117
Plantings (trees & shrubs) and Coir Fabric	\$ 238,770	\$ 233,139	\$ -	\$ -
Drill Additional Monitoring Wells	\$ 22,500	\$ 22,500	\$ 22,500	\$ 22,500
Landfill Cap Construction				
Import Clean Structural Fill (delivered)	\$ -	\$ -	\$ 79,170	\$ 79,170
Place and Compact Structural Fill	\$ -	\$ -	\$ 30,915	\$ 21,795
Install Methane Venting System	\$ -	\$ -	\$ 142,459	\$ 118,265
Purchase Clean Cover (under liner)	\$ -	\$ -	\$ 259,762	\$ 259,762
Place Clean Cover over Landfill Materials (under liner)	\$ -	\$ -	\$ 100,577	\$ 70,906
60 mil HDPE and Geocomposite System Installation	\$ -	\$ -	\$ 343,771	\$ 343,771
Purchase Clean Cover (over liner)	\$ -	\$ -	\$ 259,762	\$ 259,762
Place Clean Cover over Landfill Materials (over liner)	\$ -	\$ -	\$ 100,577	\$ 70,906
Reactive Barrier Wall	\$ -	\$ -	\$ 134,318	\$ 110,055
Buttress at Toe of Slope	\$ -	\$ -	\$ 103,236	\$ 73,437
Hydroseeding, Erosion Control, and Plantings - Regraded Historic Landfill	\$ -	\$ -	\$ 238,770	\$ 233,139
	\$ 3,238,501	\$ 2,818,380	\$ 4,624,294	\$ 4,187,513
Transportation & Disposal of Waste				
Offhaul Scrap Metals	\$ 51,150	\$ 51,150	\$ 51,150	\$ 51,150
Recycle Scrap Metals	\$ -	\$ -	\$ -	\$ -
Transportation to Municipal Landfill	\$ 920,736	\$ 732,848	\$ 459,936	\$ 366,080
Disposal at Municipal Landfill (No markup. Direct contract with Client)	\$ 5,643,750	\$ 5,643,750	\$ 3,150,000	\$ 3,150,000
Transportation to Landfill - Soil Below Landfill Waste	\$ 97,827	\$ 77,254	\$ -	\$ -
Disposal at Landfill - Soil Below Landfill Waste (No markup. Direct contract with Client)	\$ 242,025	\$ 242,025	\$ -	\$ -
	\$ 6,955,488	\$ 6,747,028	\$ 3,661,086	\$ 3,567,230
Post Construction Operation and Maintenance and Compliance Monitoring				
Closure Reporting, as-builts, submittal to regulatory agency	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000
Inspection and reporting (\$15,000/event; FULL = 8 events and PARTIAL = 25 events)	\$ 117,073	\$ 117,073	\$ 305,946	\$ 305,946
Operation and Maintenance (FULL: \$8,000/year for 5 years; PARTIAL: \$30,000/year for 20 years)	\$ 37,167	\$ 37,167	\$ 467,675	\$ 467,675
	\$ 154,240	\$ 154,240	\$ 773,621	\$ 773,621
Miscellaneous				
WA State Sales Tax (8%)	TBD if applies	TBD if applies	TBD if applies	TBD if applies
B&O Tax (retail project = 0.00471 applied to contract value)	\$ 48,740	\$ 45,780	\$ 42,668	\$ 40,169
	\$ 10,396,969	\$ 9,765,427	\$ 9,101,668	\$ 8,568,533

Agency Costs (5%)	\$ 519,848	\$ 488,271	\$ 455,083	\$ 428,427
Grand Total	\$ 10,916,817	\$ 10,253,698	\$ 9,556,752	\$ 8,996,960
Contingency (20%)	\$ 2,183,363	\$ 2,050,740	\$ 1,911,350	\$ 1,799,392
Grand Total w/ Contingency	\$ 13,100,180	\$ 12,304,438	\$ 11,468,102	\$ 10,796,351

Notes:

Yellow highlighted rows indicate work performed outside of construction contract.

WETLAND AREA REMOVAL COSTS				
	Alternative 2A: Full Impacted Soil Removal		Alternative 2B: Natural Attenuation and Institutional Controls	
Item Description	Prevailing Wage	Non-Prevailing Wage	Prevailing Wage	Non-Prevailing Wage
Pre-Construction Work				
Wetland Impacts Analysis / Agency Negotiations	\$ 100,000	\$ 100,000	\$ -	\$ -
Permitting	\$ 45,000	\$ 45,000	\$ -	\$ -
Engineering Design	\$ 40,000	\$ 40,000	\$ -	\$ -
General Construction Costs				
Third Party Construction Oversight	\$ 49,647	\$ 49,647	\$ -	\$ -
Contractor Work Plans and Submittals	\$ 9,500	\$ 9,500	\$ -	\$ -
Mobilization	\$ 55,000	\$ 55,000	\$ -	\$ -
Demobilization	\$ 32,000	\$ 32,000	\$ -	\$ -
Contractor Site Management, Travel, and Per diems	\$ 121,250	\$ 121,250	\$ -	\$ -
Site Facilities/Support - Wetland Area Remediation	\$ 25,000	\$ 25,000	\$ -	\$ -
Site Preparation and Temporary Construction				
Site Preparation (lined staging area)	\$ 55,300	\$ 47,005	\$ -	\$ -
Access Roads	\$ 89,920	\$ 78,295	\$ -	\$ -
Clear & Grub Remediation Area	\$ 18,915	\$ 12,987	\$ -	\$ -
Temporarily rerouting natural spring during removal	\$ 35,000	\$ 28,000		
Remediate Wetland Area Soils				
Excavate Metals Impacted Soil & Haul to Staging Area	\$ 52,700	\$ 48,620	\$ -	\$ -
Confirmation Sampling and Analysis	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Purchase Wetland Area Fill	\$ 119,340	\$ 119,340	\$ -	\$ -
Place Fill	\$ 70,720	\$ 53,040	\$ -	\$ -
Revegetation of Wetland Area	\$ 50,700	\$ 50,700	\$ -	\$ -
	\$ 994,992	\$ 940,384	\$ 25,000	\$ 25,000
Transportation & Disposal of Waste				
Transport Metals Impacted Soil to Landfill	\$ 56,100	\$ 56,100	\$ -	\$ -
Disposal of Metals Impacted Soil (No markup. Landfill to directly contract with Client)	\$ 892,500	\$ 892,500	\$ -	\$ -
	\$ 948,600	\$ 948,600	\$ -	\$ -
Post Construction O&M and Monitoring (PV using 7% discount rate)				
Closure Reporting (wetland portion only), as-builts, submittal to regulatory agency	\$ 35,000	\$ 35,000	\$ -	\$ -
Annual wetland area inspection and reporting (Alt 2A: \$20,000/year for 5 years, Alt 2B \$20K at 5 year point)	\$ 92,917	\$ 92,917	\$ 19,512	\$ 19,512
Operation and Maintenance (\$12,000/year for 5 years)	\$ 55,750	\$ 55,750	\$ -	\$ -
	\$ 148,667	\$ 148,667	\$ 19,512	\$ 19,512
Miscellaneous				
WA State Sales Tax (8%)	TBD if applies	TBD if applies	TBD if applies	TBD if applies
B&O Tax (retail project = 0.00471 applied to contract value)	\$ 9,855	\$ 9,597	\$ 118	\$ 118
	\$ 2,102,113	\$ 2,047,248	\$ 44,630	\$ 44,630

Agency Costs (5% for Alt. 2A, \$25K for Alt. 2B)	\$ 105,106	\$ 102,362	\$ 25,000	\$ 25,000
Grand Total	\$ 2,207,219	\$ 2,149,610	\$ 69,630	\$ 69,630

Contingency (20%)	\$ 441,444	\$ 429,922	\$ 13,926	\$ 13,926
Grand Total w/ Contingency	\$ 2,648,663	\$ 2,579,532	\$ 83,556	\$ 83,556

Notes:

Yellow highlighted rows indicate work performed outside of construction contract.