

## **Environmental Site Assessment**

Neighbors Conoco Gas Station, Carwash & Convenience Store 780 Stevens Drive

Richland, Washington 99352 GIEIM Project Number CB081023A

September 21, 2023



### **Prepared for:**

Eternal Hotels & One Stop Mart 1903 Jadwin Avenue Richland, Washington 99352

### **Prepared by:**

Green Environmental Management (855) 277-5307

## TABLE OF CONTENTS

1	Introduction	3
1.1	Background	3
2	Scope of Services	
3	Investigation Activities	4
3.1	Direct-push Boring	4
3.2	Soil Sample Collection	
3.3	Groundwater Sample Collection	5
4	Soil Analytical Results	
5	Groundwater Analytical Results	6
6	Discussion	
7	Recommendations	8
8	Closing Statements and Signatures	9
9	References	

## Figures

Figure 1 Site Location Map

Figure 2 Site Plan

### Appendices

Appendix A Boring Logs

Appendix B Laboratory Analytical Report

#### 1 Introduction

Green Environmental Management (GIEIM) conducted an Environmental Site Assessment (ESA) for Eternal Hotels & One Stop Mart at the property located at 780 Stevens Drive, Richland, Washington 99352.

The site vicinity is depicted on Figure 1: Site Location Map. The configuration of the property is depicted on Figure 2: Site Plan.

#### 1.1 Background

The subject property consists of a single, 0.58-acre Benton County tax lot located at the southeastern corner of the intersection of Stevens Drive and Knight Street in Richland, Washington. The property is occupied by a convenience store with an attached drive-through carwash and Conoco-branded gas station. Based on information obtained from the Benton County Assessor, the subject property is developed with a gas station and a circa-1955, 2,092 square-foot concrete block convenience store with an attached, circa-2010, 720 square-foot drive-through carwash. The gas station is equipped with two fuel island canopies over four fuel pumps; one fueling island is on the north side of the lot and the other is on the west side. Fuel is stored in three (3) underground storage tanks (USTs) in a vault to the east of the store. According to the Washington Department of Ecology (Ecology), the USTs include one (1) 12,000-gallon regular-grade gasoline tank, one (1) 12,000-gallon diesel tank, and one (1) 12,000-gallon gasoline tank. The tanks are of single-walled steel construction and are protected from corrosion by an impressed current cathodic protection and internal lining. The products are connected with double-walled fiberglass piping. The tanks were all installed in 1987 and were upgraded in 1998.

According to the latest tank tightness testing results downloaded from Ecology's website, the UST system is currently in compliance. In the absence of any regulatory monitoring and/or bookkeeping evidence to suggest the presence or likely presence of a release of petroleum products from the UST system, the USTs would typically not be considered an environmental risk, however given the age of the UST system, undetected releases cannot be ruled out.

GIEIM recommended an ESA at the site consisting of the advancement of seven (7) direct-push soil borings to 25 feet below ground surface (bgs), groundwater, or refusal, whichever is first encountered, for subsurface observations and the field screening, collection and analysis of seven (7) soil samples and three (3) groundwater samples (if groundwater is encountered).

#### 2 Scope of Services

The recommended scope of services for this investigation as outlined in GIEIM's proposal dated August 10, 2023, included the following:

- GIEIM will contract and oversee a private utility locater to clear planned boreholes ahead of the investigation.
- GIEIM will advance seven (7) direct-push soil borings to a depth of 25 feet bgs, groundwater or refusal, whichever is first encountered.
- At least one (1) soil sample will be collected from each of the soil borings. The soil samples will be field screened for odors and discoloration. Soil cores will be continuously monitored with a handheld, portable photoionization detector (PID). Soil samples will be collected from the soil interval(s) that display elevated PID readings and/or evidence of contamination such as odor and/or staining. If no evidence of contamination is observed, soil samples will be collected from the soil/groundwater



interface or absent groundwater, the depth just below the feature of concern (fuel pump piping, USTs, etc.).

- Soil samples will be analyzed for gasoline and diesel to heavy oil range-hydrocarbons (TPH-G, TPH-D and TPH-O) via Northwest Method NWTPH-Gx and NWTPH-Dx, and for benzene, toluene, ethylbenzene and xylenes (BTEX) via EPA Method 8260.
- If groundwater is encountered, three (3) select borings will be converted to temporary water wells for the collection of up to three (3) groundwater samples.
- Groundwater samples (if collected) will be analyzed for TPH-G via Northwest Method NWTPH-Gx, TPH-D and TPH-O via Northwest MethodNWTPH-Dx, and for BTEX via EPA Method 8260.
- GIEIM will prepare a report detailing our findings and recommendations.

The investigation was conducted on August 29 and 30, 2023.

#### 3 Investigation Activities

Washington One-Call was notified of the impending investigation on August 24, 2023 (Ticket No 23341107). Waypoint Locations of Kennewick, Washington was contracted to locate utilities and clear the boreholes of underground obstructions ahead of the investigation. B&W Standard Environmental Probe, of Spanaway, Washington, was contracted for the soil boring portion of the investigation.

#### 3.1 Direct-push Boring

On August 29 and 30, 2023, GIEIM advanced six (6) soil borings onsite; designated B-1 through B-6, adjacent to the fuel dispensing islands and adjacent to the north and south sides of the UST nest. A seventh boring was foregone due to the presence of underground utilities to the north and west of the UST nest, as well as fuel product lines assumed to be present between the USTs and the fuel islands. The locations of the borings are depicted along with features of interest on Figure 2.

The borings were advanced via truck-mounted Geoprobe® 6600 heavy duty direct-push hydraulic drilling machine; operated by Washington-licensed driller Russell Vaughan. Each of the 2½-inch outer diameter macro-cores was lined with an acetate sample liner and driven in approximately 4-foot intervals until maximum desired depth was achieved. After the advancement of each core interval, the core was retrieved, core barrel disassembled, and the sample liner was removed and transferred to the onsite project geologist. The cores were measured, and soils were logged. The soil cores were visually inspected for discoloration and odors, and were continually monitored for VOCs using a handheld MiniRae™ PID. Sampling equipment, including probe rods, sampling barrels, and other equipment, was decontaminated between core intervals using a triple-rinse system containing Alconox™. The soil cuttings and rinse water were drummed, sealed, and staged onsite.

The borings were advanced to depths ranging from 20 to 25 feet bgs. Groundwater was encountered in all six borings at a depth of 15 feet bgs. The borings generally encountered native materials beneath the asphalt cover consisting of silt, sand and sandy gravel. Boring B-6, advanced to the south of the UST nest, encountered 5 feet of gravelly silt fill under the asphalt.

No discoloration or unusual odors were observed and no elevated PID readings were noted in any of the soil cores. The borings were backfilled with hydrated bentonite chips at the close of the investigation as required by the Washington Department of Ecology, and the ground surface was patched to match the preexisting cover. Boring logs are included as Appendix A.



#### 3.2 Soil Sample Collection

One (1) soil sample was collected from each boring for a total of six (6) soil samples. The soil samples were collected from the approximate soil/groundwater interface. The soil sample nomenclature was designated by boring and depth: B-1-15, B-2-15, B-3-15, B-4-15, B-5-15 and B-6-15.

The samples were collected via EPA Method 5035. Each of the soil samples were immediately placed into clean laboratory-supplied glass containers, distinctively labeled, and placed into a cooler on ice pending transport for analysis under proper chain-of-custody to the project laboratory, Apex Labs of Tigard, Oregon.

#### 3.3 Groundwater Sample Collection

Temporary borings B-2, B-4, B-5 and B-6 were each fitted with a dedicated polyvinyl chloride (PVC) slotted screen and casing and allowed to equilibrate for approximately 20 minutes. The groundwater levels were then measured and the wells were purged of at least one well casing volume prior to sampling. The temporary wells constructed in borings B-5 and B-6 did not recharge and were not therefore sampled for groundwater.

Groundwater samples were collected from the cased borings utilizing clean dedicated silicone and polyethylene tubing connected to a peristaltic pump. Each of the water sample volumes were collected into clean laboratory-supplied containers and distinctively labeled by boring (B-2 GW and B-4 GW).

The labeled water sample containers were immediately placed into a cooler on ice pending transport for analysis under proper chain-of-custody to Apex Labs.

#### 4 Soil Analytical Results

All six (6) soil samples were submitted to Apex Labs for analysis of TPH-G via Northwest Method NWTPH-Gx, for TPH-D and TPH-O via Northwest Method NWTPH-Dx, and for BTEX via EPA Method 8260.

The soil analytical results were compared to their applicable Washington State Method A (Unrestricted Land Use) Cleanup Levels as published in the Washington Department of Ecology's *Table 740-1 Method A Soil Cleanup Levels for Unrestricted Land Uses* in Ecology's *Cleanup Levels and Risk Calculation (CLARC) Master Table*. CLARC is an online compendium of technical information related to calculating cleanup levels under MTCA<sup>1</sup> Regulation. The Master Table was most recently updated in January 2023.

No TPH-G or TPH-D was detected in any of the soil samples in excess of the laboratory method reporting limits (MRLs), which were in each case below the MTCA Method A Cleanup Levels for gasoline and diesel in soil of 100 milligrams per kilogram (mg/Kg; no benzene present) and 2,000 mg/Kg respectively.

Soil samples B-1-15, B-5-15 and B-6-15 were found to contain 107, 31.3 and 242 mg/Kg heavy oil (TPH-O) respectively. These results are well below the MTCA Method A Cleanup Level for heavy oil in soil of 2,000 mg/Kg.

No BTEX was detected in any of the soil samples in excess of the MRLs, which were in each case below the MTCA Method A Cleanup Levels of 30 micrograms per kilogram ( $\mu$ g/Kg) for benzene, 7,000  $\mu$ g/Kg for toluene, 6,000  $\mu$ g/Kg for ethylbenzene, and 9,000  $\mu$ g/Kg for xylenes.

<sup>&</sup>lt;sup>1</sup>Model Toxics Control Act Statute and Regulation - Model Toxics Control Act Chapter 70.105D RCW, Uniform Environmental Covenants Act Chapter 64.70 RCW, MTCA Cleanup Regulation Chapter 173-340 WAC, (revised 2013).



The soil analytical results are presented in the Apex Labs report in Appendix B.

#### 5 Groundwater Analytical Results

Both groundwater samples (B-2 GW and B-4 GW) were submitted to Apex Labs for analysis of TPH-G via Northwest Method NWTPH-Gx, for TPH-D and TPH-O via Northwest Method NWTPH-Dx, and for BTEX via EPA Method 8260.

The laboratory notified GIEIM that the preliminary Method 8260 analysis indicated the presence of chlorinated solvents in the groundwater samples. On this basis, GIEIM requested the full suite of volatile organic compounds (VOCs) reported for the samples.

The groundwater analytical results were compared to their MTCA Method A Cleanup Levels (CLARC Master Table 2023). Where Method A Cleanup Levels do not exist, the sample results were compared to Method B Cleanup Levels<sup>2</sup> (Direct Contact, both cancer and noncancer risks).

No TPH-D or TPH-O was detected in the groundwater samples in excess of MRLs which were in each case below the MTCA Method A Cleanup Levels for diesel and oil in groundwater of 500 micrograms per liter ( $\mu$ g/L).

TPH-G was detected in B-2 GW at a concentration of 0.0819  $\mu$ g/L. This result is lower than the MRL and is therefore an estimated result. The Method A Cleanup Level for gasoline in groundwater is 1,000  $\mu$ g/L.

B-2 GW and B-4 GW were found to contain 18.9 and 1.00  $\mu$ g/L tetrachloroethene (PCE). PCE is a chlorinated solvent commonly used as a dry-cleaning agent. The most stringent (Method A direct contact) Cleanup Level for PCE in groundwater is 5.00  $\mu$ g/L. No other VOCs were detected in the groundwater samples in excess of MRLs. The second most stringent Screening Level for PCE in groundwater (Method B Vapor Intrusion from Groundwater (Cancer) Screening Level) is 25.0  $\mu$ g/L.

Although no other compounds in groundwater were found to exceed their respective Cleanup Levels (where they exist), the 1,2-Dibromoethane (EDB) MRL did not meet the Cleanup Level. Taken by itself, this doesn't indicate EDB is present in excess of the Cleanup Level. Rather, the analytical method was unable to quantify EDB at a concentration that meets or exceeds the relatively low Cleanup Level; therefore, EDB > CUL cannot be ruled out. EDB is a lead scavenger additive and was at one time an additive to leaded gasoline.

The groundwater analytical results are presented in the Apex Labs report in Appendix B.

#### 6 Discussion

GIEIM conducted a Phase II for Eternal Hotels & One Stop Mart at the Neighbors Conoco Gas Station located at 780 Stevens Drive, Richland, Washington 99352. The purpose of the investigation was to assess the subsurface of the property for potentially adverse impacts related to the operation of an active retail gas station onsite.

As part of the investigation, GIEIM advanced six (6) soil borings onsite; designated B-1 through B-6, adjacent to the two fuel dispensing islands and adjacent to the north and south sides of the USTs.

The borings were advanced to depths ranging from 20 to 25 feet bgs. No discoloration or unusual odors were observed and no elevated PID readings were noted in any of the soil cores. Groundwater was encountered in the soil borings at a consistent depth of 15 feet bgs. Four (4) of the soil borings were

<sup>&</sup>lt;sup>2</sup>Where Method B Cleanup Levels exist; some compounds have neither Method A nor B Cleanup Levels.



converted to temporary water wells; however, only two were productive and able to be sampled for groundwater.

Six soil samples collected from the soil/groundwater interface at 15 feet bgs (one from each boring) and two groundwater samples (B-2 GW and B-4 GW) were collected for analysis.

All six soil samples and both groundwater samples were submitted to the project laboratory for TPH-G, TPH-D, TPH-O and BTEX analysis.

No TPH-G or TPH-D was detected in any of the soil samples in excess of MRLs, which were in each case below the MTCA Method A Cleanup Levels for gasoline and diesel in soil. Soil samples B-5-15 and B-6-15 were found to contain low concentrations of TPH-O; well below the MTCA Method A Cleanup Level for heavy oil in soil. No BTEX was detected in any of the soil samples in excess of the MRLs, which were in each case below their respective MTCA Method A Cleanup Levels.

No TPH-D or TPH-O was detected in the groundwater samples in excess of the MRLs which were in each case below the MTCA Method A Cleanup Levels for diesel and oil in groundwater. TPH-G was detected in B-2 GW at an estimated concentration (below the MRL) approximately 4 orders of magnitude below the Method A Cleanup Level for gasoline in groundwater.

The laboratory notified GIEIM the preliminary groundwater analytical results indicated the presence of chlorinated solvents in the groundwater samples. On this basis, GIEIM requested the full suite of VOCs reported for the groundwater samples.

No VOCs were detected in the groundwater samples in excess of MRLs with the exception of PCE in samples B-2 GW and B-4 GW at 18.9 and 1.00  $\mu$ g/L, respectively. PCE is a chlorinated solvent commonly used as a dry-cleaning agent. The most stringent (Method A direct contact) Cleanup Level for PCE in groundwater is 5.00  $\mu$ g/L; therefore, the B-2 GW results exceed the Cleanup Level.

Based on the results of the investigation, no impacts to the subsurface were detected in association with the active onsite fuel UST and associated fuel pumps. However, the detection of PCE in groundwater instigated a search for nearby dry-cleaning sites. A quick search of Ecology's online database of Cleanup Sites identified a potential source for the PCE at a site across the street from the subject property, to the west. New City Cleaners, Ecology Facility Site ID 327 (<a href="https://apps.ecology.wa.gov/cleanupsearch/site/4894">https://apps.ecology.wa.gov/cleanupsearch/site/4894</a>) at 747 Stevens Drive has been used for commercial dry-cleaning operations continuously since the late 1940s. Historical dry-cleaning operations have reportedly utilized PCE since 1974. A reported act of vandalism in 1975 released an unknown quantity of PCE onto the ground in the southwest corner of the dry cleaner property. This release, along with other historical releases of PCE at the site have impacted soil and groundwater on and off the property. Impacted groundwater has migrated onto adjacent properties to the south and east of the site, including a property to the south occupied by the Richland School District maintenance building and a vacant property to the east formerly occupied by an Albertsons grocery store.

One of several groundwater monitoring wells established to monitor the chlorinated solvents plume, MW-171, is located near the western subject property boundary between the subject property and the former Albertsons alleyway. PCE was detected in MW-171 at 17  $\mu$ g/L in 2016 and 5.4  $\mu$ g/L in 2019. Given these concentrations are similar to that found in groundwater of this study, the PCE detected in groundwater of the subject property is most likely the result of an encroaching plume of PCE-impacted groundwater from the New City Cleaners site. The finding is not likely to result in unacceptable exposures for occupants or site workers at the subject property, as the property does not utilize the shallow groundwater for any beneficial reason. The property is supplied municipal water. Groundwater at the subject property is deep enough (15 feet bgs) to preclude most instances of exposure by direct contact to utility or excavation workers. The PCE concentrations detected in groundwater of the subject site are below any Vapor Intrusion Screening Levels.



On this basis, it is GIEIM's opinion no further environmental investigation of the subject property is warranted. Nevertheless, the findings of this investigation are required to be reported to Ecology per Washington Administrative Code (WAC) 173-340-300. It should be additionally noted the proposed Cleanup (Draft Cleanup Action Plan (DCAP) dated December 21, 2020) of the New City Cleaners site is currently in the public comment period, which ends October 2, 2023. After the public comment period ends, Ecology will review and respond to comments received and will hold a public meeting if 10 or more people request one. After review and consideration of comments received, the DCAP will become final.

An additional consideration for the subject property may arise if in the future, the current USTs are replaced or otherwise upgraded such that an excavation at the subject site is liable to encounter contaminated groundwater. Special precautions including hazardous materials training and appropriate personal protective equipment for site workers will be required. A Contaminated Media Management Plan should be developed and maintained to instruct and inform site workers on the appropriate handling and disposal of any contaminated groundwater that may be encountered during site work.

#### 7 Recommendations

GIEIM recommends the PCE to groundwater release is reported to the Washington Department of Ecology as required by Washington State Law under MTCA WAC 173-340-300. Releases of hazardous substances must be reported within ninety (90) calendar days of discovery (WAC 173-340-300(2)). GIEIM additionally recommends the subject property owner contact the Ecology Project Manager for the New City Cleaners regarding this finding. The Ecology contact person is Rachel Caron. Rachel Caron can be reached via email at <a href="mailto:Rachel.Caron@ecy.wa.gov">Rachel.Caron@ecy.wa.gov</a>. Upon request, GIEIM will report this documented release of PCE to groundwater of the subject property via Ecology's reporting hotline and/or directly to Rachel Caron. Otherwise, it is assumed the Client or subject property owner will self-report.



#### 8 Closing Statements and Signatures

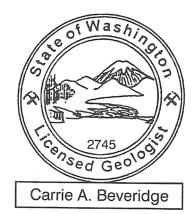
This report presents a summary of work completed by GIEIM. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples were chosen to provide the required information, but it cannot be assumed that they are representative of areas not sampled. In addition, GIEIM has relied on information provided by others, which is assumed to be correct, however, GIEIM cannot assume any responsibility for its correctness or accuracy. All conclusions and/or recommendations are based on these analyses, observations, provided information, and the governing regulations at the time of the assessment. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact Carrie Beveridge at (503) 329-9325.

Date: September 21, 2023

Report prepared by:



Expires 12/18/2023

Report reviewed by

Jonathan Green President, REPA Hydrogeologist 2267

Brent N. Bergeron

Brent N. Bergeron, LHG, LG GEM Senior Hydrogeplogist



Expires 1/3/24

#### 9 References

- Washington Department of Ecology, Model Toxics Control Act Statute and Regulation Model Toxics Control Act Chapter 70.105D RCW, Uniform Environmental Covenants Act Chapter 64.70 RCW, MTCA Cleanup Regulation Chapter 173-340 WAC, revised 2013
- Washington Department of Ecology, Cleanup Levels and Risk Calculation (CLARC), Master Data Table, <a href="https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC">https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC</a>, updated January 2023
- Washington Department of Ecology, Cleanup and Tank Search, New City Cleaners, 747 Stevens Dr Richland,
  Benton County, Facility Site ID: 327 Cleanup Site ID: 4894,
  <a href="https://apps.ecology.wa.gov/cleanupsearch/site/4894">https://apps.ecology.wa.gov/cleanupsearch/site/4894</a> accessed September 16, 2023





Base map was downloaded from The National Map (U.S.G.S), <a href="https://apps.nationalmap.gov/downloader/">https://apps.nationalmap.gov/downloader/</a> on 9/16/2023.

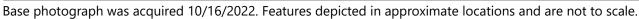


## **Figure 1: Site Location Map**

780 Stevens Drive, Richland, Washington 99352 Project Number: CB081023A









## Figure 2: Site Plan

780 Stevens Drive, Richland, Washington 99352 Project Number: CB081023A



# Appendix A – Boring Logs

780 Stevens Drive, Richland, Washington 99352

September 2023

Project:				Project Number:	Client:	Boring	No.					
	rs Conoc			CB081023A	Eternal Hotels et al	B-1	_					
	City, Sta	te e, Richland	Ι \Λ/Δ		Drilling Contractor: B&W Standard		g Type: obe 6600	1				
Logged		e, McHario	i, vv.	Started:	Bit Type:	Diame		<u> </u>				
Carrie Be				8/29/2023	Direct-push	21/4 inc						
Drill Cre				Completed:	Core Length:							
Russel V				8/29/2023	5 feet							
Locate T 2334110	icket Nui	mber:		Backfilled: Bentonite	Groundwater Depth:	Total E	epth of	Boring:				
2334110	' '			bentonite	15'	23						
Depth (feet)	Sample Interval	Sample ID	Graphic Log	Color/Soil Descripti	olor/Soil Description/USCS Soil Classification							
_				6 inches of asphalt ar Stiff light brown SILT			100	D	0			
5 —				Slightly moist			100	SM	0			
10—				Moist Soft			60	М	0			
			▼	Dense, light brown, (GW), slightly moist	black and white sandy (	GRAVEL		SM				
15— — — —	X X	B-1-15		Loose black and browet	own SAND (SW) with some	gravel,	50	W	0			
20—							100	W	0			

Project: Neighbo	ors Conoc	0		Project Number: CB081023A	Client: Eternal Hotels et al	Boring B-2	No.		
Address,	, City, Sta	te	I \A/A		Drilling Contractor: B&W Standard	Drill Ri	g Type:	n	
Logged		e, Richland	i, VVA	Started:	Bit Type:	Diame	obe 6600 ter:	J	
Carrie Be				8/29/2023 Completed:	Direct-push	21/4 inc	h		
Russel V				8/29/2023	Core Length: 5 feet				
Locate T 2334110	icket Nui )7	mber:		Backfilled: Bentonite	Groundwater Depth: 15'	Total D	epth of	Boring:	
Depth (feet)	Sample Interval	Sample ID	Graphic Log	Color/Soil Descript	tion/USCS Soil Classificatio	on	Recovery (%)	Moisture	PID (ppm)
_				2 inches of asphalt Medium-stiff light b	orown SILT (ML), powdery, di	у	60	D	0
5 —				Slightly moist			100	SM	0
10—				Moist Soft			60	М	
_				Dense, light browr (GW), slightly moist	n, black and white sandy	GRAVEL		SM	0
15— — — — — 20—	X X	B-2-15	¥.	Loose black and br	rown SAND (SW) with some	e gravel,	50	W	0

Project:				Project Number:	Client:	Boring	No.		
Neighbo				CB081023A	Eternal Hotels et al	B-3			
Address,		te e, Richland	\Λ/Δ		Drilling Contractor: B&W Standard		g Type: obe 6600	)	
Logged		e, Memana	, vv.	Started:	Bit Type:	Diamet		,	
Carrie Be	everidge			8/29/2023	Direct-push	21/4 inc			
Drill Crev				Completed:	Core Length:				
Russel V Locate T		mher:		8/29/2023 Backfilled:	5 feet Groundwater Depth:	Total C	epth of	Roring:	
2334110		iibei.		Bentonite	15'	20'	eptii oi	bornig.	
Depth (feet)	Sample Interval	Sample ID	Graphic Log	Color/Soil Descripti	on/USCS Soil Classification	n	Recovery (%)	Moisture	PID (ppm)
_				2 inches of asphalt Medium-stiff light br	own SILT (ML), powdery, dry	/	60	D	0
5 —				Slightly moist			40	SM	
				Medium-dense, brov moist	vn, fine-grained SAND (SP),	slightly		SM	0
10—				Soft light brown SILT	(ML), moist		60	М	0
_				Dense, light brown, (GW), slightly moist	black and white sandy (	GRAVEL		SM	0
15—	××	B-3-15		Loose black and bro	own SAND (SW) with some	gravel,	50	W	0

Project:   Project Number: Canal Hotels et al   Boring No.			No	Poring	Client:	oject Number:				Project:
Address, City, State 780 Stevens Drive, Richland, WA Logged By Carrie Beveridge 8/29/2023 Started: 8/29/2023 Direct-push 21/4 inch  Completed: 8/29/2023 Sfeet Locate Ticket Number: Backfilled: Bentonite 15' Color/Soil Description/USCS Soil Classification  10' Color/Soil Description/USCS Soil Classification  20' Color/Soil Description/USCS Soil Classification  21' Color/Soil Description/USCS Soil Classification  22 inches of asphalt Medium-stiff light brown SILT (ML), slightly moist  30' Medium-dense, light gray and brown sandy GRAVEL  SM			INO.					0	ors Cono	
780 Stevens Drive, Richland, WA Logged By: Logged By: Carrie Beveridge 8/29/2023 Drill Crew: Russel Vaughan Locate Ticket Number: 23341107    Completed: Refilled: Groundwater Depth: Total Depth of Boring: Bentonite   Sold Description/USCS Soil Classification   Sold Description/USCS Soi				Drill Ri	Drilling Contractor:			te	City, Sta	Address
Carrie Beveridge  Drill Crew:  Completed: Core Length: Styley2023 Sirect Length: Sirect Length: Styley2023 Sirect Length: Sirect		0					l, WA	e, Richlanc		
Drill Crew: Russel Vaughan   8/29/2023   5 feet   Core Length: 5 feet   Core Length: 6 feet   Core Length: 7 feet   Core Length: 8/29/2023   Set   Core Length: 8/29/2023   Set   Core Length: 8/29/2023   Set   Core Length: 7 feet   Core Length: 8/29/2023   Set   Core Length: 8/29/2024   Set   Core Length: 8/										
Russel Vaughan Locate Ticket Number: Backfilled: Groundwater Depth: Total Depth of Boring: 23341107    Page   Page			h	21/4 inc						
Color/Soil Description/USCS Soil Classification   Total Depth of Boring:   24'   2										
Soft, moist   Soft		Boring:	epth of	Total D				mber:		
2 inches of asphalt Medium-stiff light brown SILT (ML), slightly moist  5 — 70  Soft, moist  Medium-dense, light gray and brown sandy GRAVEL (GW), slightly moist  Medium-dense, light gray and brown sandy GRAVEL (GW), slightly moist		3	'			ntonite				
Medium-stiff light brown SILT (ML), slightly moist  SM  70  Soft, moist  Medium-dense, light gray and brown sandy GRAVEL (GW), slightly moist  X B-4-15  Wet 40 W	PID (ppm)	Moisture	Recovery (%)	on	on/USCS Soil Classificatio	Graphic Log	Sample ID	Sample Interval	Depth (feet)	
Soft, moist  M  Soft, moist  M  Medium-dense, light gray and brown sandy GRAVEL (GW), slightly moist  X  B-4-15  Wet  40  W	0	SM	60	ist	own SILT (ML), slightly moi:					
10— 10— — — — — — — — — — — — — — — — —	0	М	70			ft. moist				5 —
	0		50							10-
^   B-4-15   Wet   40   W		SM		GRAVEL	t gray and brown sandy		_			_
	0	W	40			et	¥	B-4-15		15— — —
Sandier with depth  Sandier with depth  40 W	0	w	40			ndier with depth				20—
25										_ 25

s Conoc	.0		Project Number:	Client:		No.		
City, Sta	te		CB061023A	Drilling Contractor:	Drill Ri			
	e, Richland	l, WA	Started:	I .			0	
y. reridge			8/29/2023	Direct-push				
: uahan			Completed:	Core Length:				
	mber:		Backfilled:		Total D	Depth of	Boring:	
		1	Bentonite	15'	24'	'		
Sample Interval	Sample ID	Graphic Log	Color/Soil Descrip	tion/USCS Soil Classificati	ion	Recovery (%)	Moisture	PID (ppm)
			3 inches of asphalt Medium-stiff light b	prown SILT (ML), slightly mo	pist	100	SM	0
			Moist			100	М	
			Soft, very moist				VM	0
		KORONON			CDAVE.	60	614	0
X X	B-5-15	¥	č		, GRAVEL	50	W	0
			Boring refused at 2 Well constructed, n					
	City, Stans Drive y: eridge ughan ket Nur	Semble Interval ket Number:  Samble Interval Representation of the semble Interval Representation of the sem	X B-5-15	CEONOCO CITY, State Ins Drive, Richland, WA  Completed: Red Number:  Ret Number:  R	Sonoco  CR081023A Eternal Hotels et al City State in Drive, Richland, WA In Drive, Richland, WA Started: Started: Started: Started: Completed: Completed: Started: St	Sconco  City, State City, State So Drive, Richland, WA  Started:	Sconco CB081023A Eternal Hotels et al B-5 Drilling Contractor: Drill Rig Type: Geoprobe 660 Started: Bit Type: Diameter: Geoprobe 660 Seridge 8/29/2023 Direct-push 24 inch Started: Groundwater Depth: 24 inch Seridge 8/29/2023 Seridge Seri	Concoc   CB081023A   Eternal Hotels et al   B-5

Project:				Project Number:	Client:	Boring	. No		
	ors Conoc	0		CB081023A	Eternal Hotels et al	B-6	i NO.		
Address,	, City, Sta		d, WA		Drilling Contractor: B&W Standard		ig Type: obe 660	0	
Logged		-,	.,	Started:	Bit Type:	Diame			
Carrie Be	everidge			8/29/2023	Direct-push	21/4 ind	ch		
Drill Crev				Completed:	Core Length:				
Russel V	augnan icket Nui	mhor:		8/29/2023 Backfilled:	5 feet Groundwater Depth:	Total	Depth of	Poring:	
2334110		nber:		Bentonite	15'	24'	Jepth of	Boring:	
				Jentonico	13				
Depth (feet)	Sample Interval	Sample ID	Graphic Log	Color/Soil Descript	tion/USCS Soil Classificati	on	Recovery (%)	Moisture	PID (ppm)
_				3 inches of asphalt Medium-stiff brown	gravelly silt FILL, moist		30	М	0
5 — —				Soft light brown SIL	T (ML), moist		20	М	0
_				Soft, very moist				VM	0
10—				Hard drilling Dense, brown and w	rhite sandy GRAVEL (GW), o	dry	60	D	0
15—	X X	B-6-15	¥	Boring refused at 24			60	W	0
			avanana)	Well constructed, no					
05				constructed, fic					
<del>-</del> 25 <del>-</del>			•	•					

# Appendix B – Laboratory Analytical Report

780 Stevens Drive, Richland, Washington 99352

September 2023



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

Tuesday, September 12, 2023
Carrie Beveridge
GEM
P.O. Box 2212
Sisters, OR 97759

RE: A3H1536 - 780 Stevens - [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 A3H1536, which was received by the laboratory on 8/31/2023 at 7:43:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <a href="mailto:pnerenberg@apex-labs.com">pnerenberg@apex-labs.com</a>, 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

Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.

(See Cooler Receipt Form for details)

Default Cooler 5.1 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

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 1 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEM Project: 780 Stevens

 P.O. Box 2212
 Project Number: [none]
 Report ID:

 Sisters, OR 97759
 Project Manager: Carrie Beveridge
 A3H1536 - 09 12 23 1251

#### ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	ORMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1-15	АЗН1536-01	Soil	08/29/23 14:23	08/31/23 07:43
B-2-15	АЗН1536-02	Soil	08/29/23 15:46	08/31/23 07:43
B-2-GW	АЗН1536-03	Water	08/29/23 16:11	08/31/23 07:43
B-3-15	АЗН1536-04	Soil	08/29/23 17:00	08/31/23 07:43
B-4-15	АЗН1536-05	Soil	08/30/23 09:30	08/31/23 07:43
B-4-GW	АЗН1536-06	Water	08/30/23 10:00	08/31/23 07:43
B-5-15	АЗН1536-07	Soil	08/30/23 10:15	08/31/23 07:43
B-6-15	A3H1536-08	Soil	08/30/23 12:05	08/31/23 07:43

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 2 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

	Die	esel and/or O	il Hydrocar	bons by NWTP	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-1-15 (A3H1536-01)				Matrix: Soil		Batch:	2310158	
Diesel	ND	11.6	23.3	mg/kg dry	1	09/07/23 19:17	NWTPH-Dx	
Oil	107	23.3	46.6	mg/kg dry	1	09/07/23 19:17	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ery: 101 %	Limits: 50-150 9	6 I	09/07/23 19:17	NWTPH-Dx	
B-2-15 (A3H1536-02)				Matrix: Soil		Batch:	Batch: 2310158  //07/23 19:17 NWTPH-Dx //07/23 19:17 NWTPH-Dx //07/23 19:17 NWTPH-Dx //07/23 19:17 NWTPH-Dx  Batch: 2310158  //07/23 20:40 NWTPH-Dx //07/23 20:40 NWTPH-Dx //07/23 20:40 NWTPH-Dx //08/23 01:57 NWTPH-Dx //08/23 01:57 NWTPH-Dx //08/23 01:57 NWTPH-Dx //08/23 01:57 NWTPH-Dx  Batch: 2310158  //07/23 21:01 NWTPH-Dx //07/23 21:01 NWTPH-Dx //07/23 21:01 NWTPH-Dx //07/23 21:01 NWTPH-Dx //07/23 21:21 NWTPH-Dx //08/23 02:20 NWTPH-Dx //08/23 02:20 NWTPH-Dx //08/23 02:20 NWTPH-Dx	
Diesel	ND	11.3	22.6	mg/kg dry	1	09/07/23 20:40	NWTPH-Dx	
Oil	ND	22.6	45.1	mg/kg dry	1	09/07/23 20:40	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ery: 100 %	Limits: 50-150 %	6 1	09/07/23 20:40	NWTPH-Dx	
B-2-GW (A3H1536-03)				Matrix: Wat	er	Batch:	Batch: 23l0162 9/08/23 01:57 NWTPH-Dx 9/08/23 01:57 NWTPH-Dx	
Diesel	ND	0.118	0.235	mg/L	1	09/08/23 01:57	NWTPH-Dx	
Oil	ND	0.235	0.471	mg/L	1	09/08/23 01:57	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 84 %	Limits: 50-150 %	6 1	09/08/23 01:57	NWTPH-Dx	
B-3-15 (A3H1536-04)				Matrix: Soil		Batch:	Batch: 23I0158	
Diesel	ND	11.2	22.3	mg/kg dry	1	09/07/23 21:01	NWTPH-Dx	
Oil	ND	22.3	44.7	mg/kg dry	1	09/07/23 21:01	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ery: 100 %	Limits: 50-150 %	6 I	09/07/23 21:01	NWTPH-Dx	
B-4-15 (A3H1536-05)				Matrix: Soil		Batch:	2310158	
Diesel	ND	11.1	22.2	mg/kg dry	1	09/07/23 21:21	NWTPH-Dx	
Oil	ND	22.2	44.4	mg/kg dry	1	09/07/23 21:21	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ery: 103 %	Limits: 50-150 %	6 1	09/07/23 21:21	NWTPH-Dx	
B-4-GW (A3H1536-06)				Matrix: Wat	er	Batch:	2310162	
Diesel	ND	0.118	0.235	mg/L	1	09/08/23 02:20	NWTPH-Dx	
Oil	ND	0.235	0.471	mg/L	1	09/08/23 02:20	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 80 %	Limits: 50-150 %	6 I	09/08/23 02:20	NWTPH-Dx	
B-5-15 (A3H1536-07)				Matrix: Soil		Batch:	2310158	
Diesel	ND	10.2	20.4	mg/kg dry	1	09/07/23 21:42	NWTPH-Dx	
Oil	31.3	20.4	40.7	mg/kg dry	1	09/07/23 21:42	NWTPH-Dx	J
Surrogate: o-Terphenyl (Surr)		Reco	very: 99 %	Limits: 50-150 %	6 I	09/07/23 21:42	NWTPH-Dx	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

	Die	sel and/or O	il Hydrocar	bons by NWTPI	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-6-15 (A3H1536-08RE1)						Batch:	2310158	
Diesel	ND	21.0	42.1	mg/kg dry	2	09/08/23 10:35	NWTPH-Dx	
Oil	242	42.1	84.2	mg/kg dry	2	09/08/23 10:35	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 71 %	Limits: 50-150 %	5 2	09/08/23 10:35	NWTPH-Dx	S-05

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Merenberg

Page 4 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

	G - 1	Detect	Dog - 1			D-4-		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-1-15 (A3H1536-01)				Matrix: Soi	I	Batch	atch: 23H1168  5:28 NWTPH-Gx (MS)  5:28 NWTPH-Gx (MS)  15:28 NWTPH-Gx (MS)  15:28 NWTPH-Gx (MS)  atch: 23H1168  6:19 NWTPH-Gx (MS)  16:19 NWTPH-Gx (MS)  16:19 NWTPH-Gx (MS)  16:19 NWTPH-Gx (MS)  2:51 NWTPH-Gx (MS)  12:51 NWTPH-Gx (MS)  13:14 NWTPH-Gx (MS)	
Gasoline Range Organics	ND	2.87	5.75	mg/kg dry	50	08/31/23 15:28	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recover	v: 94 %	Limits: 50-150	% 1	08/31/23 15:28	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			109 %	50-150	% 1	08/31/23 15:28	NWTPH-Gx (MS)	
B-2-15 (A3H1536-02)				Matrix: Soi	I	Batch	: 23H1168	
Gasoline Range Organics	ND	2.37	4.74	mg/kg dry	50	08/31/23 16:19	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recover	v: 96 %	Limits: 50-150	% 1	08/31/23 16:19	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			109 %	50-150	% 1	08/31/23 16:19	NWTPH-Gx (MS)	
B-2-GW (A3H1536-03)				Matrix: Wa	ter	Batch	23H1153	
Gasoline Range Organics	0.0819	0.0500	0.100	mg/L	1	08/31/23 12:51	NWTPH-Gx (MS)	J
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery	v: 91 %	Limits: 50-150	% 1	08/31/23 12:51	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			108 %	50-150	% 1	08/31/23 12:51	NWTPH-Gx (MS)	
B-3-15 (A3H1536-04)				Matrix: Soi	I	Batch	: 23H1168	
Gasoline Range Organics	ND	2.45	4.90	mg/kg dry	50	08/31/23 16:45	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recover	v: 96 %	Limits: 50-150	% 1	08/31/23 16:45	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			111 %	50-150	% 1	08/31/23 16:45	NWTPH-Gx (MS)	
B-4-15 (A3H1536-05)				Matrix: Soi	I	Batch		
Gasoline Range Organics	ND	2.07	4.13	mg/kg dry	50	08/31/23 17:10	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery	v: 95 %	Limits: 50-150	% 1	08/31/23 17:10	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			110 %	50-150	% 1	08/31/23 17:10	NWTPH-Gx (MS)	
B-4-GW (A3H1536-06)		Matrix: Water Batch: 23H1153				: 23H1153		
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	08/31/23 13:14	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery	v: 90 %	Limits: 50-150	% 1	08/31/23 13:14	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			110 %	50-150	% 1	08/31/23 13:14	NWTPH-Gx (MS)	
B-5-15 (A3H1536-07)			Matrix: Soil Batch: 23H1168					
Gasoline Range Organics	ND	1.08	2.16	mg/kg dry	50	08/31/23 17:36	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recover	v: 99 %	Limits: 50-150	% 1	08/31/23 17:36	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)		Ĩ	113 %	50-150	% 1	08/31/23 17:36	NWTPH-Gx (MS)	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Manherg



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

Gasol	ine Range Hy	drocarbons	(Benzene tl	hrough Naphtha	alene) by	NWTPH-Gx		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-6-15 (A3H1536-08)				Matrix: Soil		Batch:	23H1168	
Gasoline Range Organics	ND	1.86	3.72	mg/kg dry	50	08/31/23 18:02	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Reco	very: 94 %	Limits: 50-150 %	5 1	08/31/23 18:02	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			111 %	50-150 %	5 I	08/31/23 18:02	NWTPH-Gx (MS)	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 6 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

		BTEX Co	mpounds b	y EPA 8260D					
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
B-1-15 (A3H1536-01)				Matrix: Soil		Batch:	Batch: 23H1168		
Benzene	ND	5.75	11.5	ug/kg dry	50	08/31/23 15:28	5035A/8260D		
Toluene	ND	28.7	57.5	ug/kg dry	50	08/31/23 15:28	5035A/8260D		
Ethylbenzene	ND	14.4	28.7	ug/kg dry	50	08/31/23 15:28	5035A/8260D		
Xylenes, total	ND	43.1	86.2	ug/kg dry	50	08/31/23 15:28	5035A/8260D		
Surrogate: 1,4-Difluorobenzene (Surr)		Reco	very: 96 %	Limits: 80-120 %	1	08/31/23 15:28	5035A/8260D		
Toluene-d8 (Surr)			108 %	80-120 %	1	08/31/23 15:28	5035A/8260D		
4-Bromofluorobenzene (Surr)			96 %	79-120 %	1	08/31/23 15:28	5035A/8260D		
B-2-15 (A3H1536-02)				Matrix: Soil		Batch:	23H1168		
Benzene	ND	4.74	9.48	ug/kg dry	50	08/31/23 16:19	5035A/8260D		
Toluene	ND	23.7	47.4	ug/kg dry	50	08/31/23 16:19	5035A/8260D		
Ethylbenzene	ND	11.9	23.7	ug/kg dry	50	08/31/23 16:19	5035A/8260D		
Xylenes, total	ND	35.6	71.1	ug/kg dry	50	08/31/23 16:19	5035A/8260D		
Surrogate: 1,4-Difluorobenzene (Surr)		Reco	very: 96 %	Limits: 80-120 %	I	08/31/23 16:19	5035A/8260D		
Toluene-d8 (Surr)			105 %	80-120 %	1	08/31/23 16:19	5035A/8260D		
4-Bromofluorobenzene (Surr)			96 %	79-120 %	1	08/31/23 16:19	5035A/8260D		
B-3-15 (A3H1536-04)				Matrix: Soil		Batch: 23H1168			
Benzene	ND	4.90	9.79	ug/kg dry	50	08/31/23 16:45	5035A/8260D		
Toluene	ND	24.5	49.0	ug/kg dry	50	08/31/23 16:45	5035A/8260D		
Ethylbenzene	ND	12.2	24.5	ug/kg dry	50	08/31/23 16:45	5035A/8260D		
Xylenes, total	ND	36.7	73.5	ug/kg dry	50	08/31/23 16:45	5035A/8260D		
Surrogate: 1,4-Difluorobenzene (Surr)		Reco	very: 97 %	Limits: 80-120 %	1	08/31/23 16:45	5035A/8260D		
Toluene-d8 (Surr)			106 %	80-120 %	1	08/31/23 16:45	5035A/8260D		
4-Bromofluorobenzene (Surr)			96 %	79-120 %	1	08/31/23 16:45	5035A/8260D		
B-4-15 (A3H1536-05)				Matrix: Soil		Batch:	23H1168		
Benzene	ND	4.13	8.27	ug/kg dry	50	08/31/23 17:10	5035A/8260D		
Toluene	ND	20.7	41.3	ug/kg dry	50	08/31/23 17:10	5035A/8260D		
Ethylbenzene	ND	10.3	20.7	ug/kg dry	50	08/31/23 17:10	5035A/8260D		
Xylenes, total	ND	31.0	62.0	ug/kg dry	50	08/31/23 17:10	5035A/8260D		
Surrogate: 1,4-Difluorobenzene (Surr)		Reco	very: 96 %	Limits: 80-120 %	I	08/31/23 17:10	5035A/8260D		
Toluene-d8 (Surr)			107 %	80-120 %	I	08/31/23 17:10	5035A/8260D		
4-Bromofluorobenzene (Surr)			96 %	79-120 %	1	08/31/23 17:10	5035A/8260D		

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 7 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260D										
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes		
B-5-15 (A3H1536-07)	Matrix: Soil					Batch: 23H1168				
Benzene	ND	2.16	4.33	ug/kg dry	50	08/31/23 17:36	5035A/8260D			
Toluene	ND	10.8	21.6	ug/kg dry	50	08/31/23 17:36	5035A/8260D			
Ethylbenzene	ND	5.41	5.41 10.8		50	08/31/23 17:36	5035A/8260D			
Xylenes, total	ND	16.2	32.5	ug/kg dry	50	08/31/23 17:36	5035A/8260D			
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %	5 1	08/31/23 17:36	5035A/8260D			
Toluene-d8 (Surr)			106 %	80-120 %	5 1	08/31/23 17:36	5035A/8260D			
4-Bromofluorobenzene (Surr)			96 %	79-120 %	5 1	08/31/23 17:36	5035A/8260D			
B-6-15 (A3H1536-08)				Matrix: Soil		Batch: 23H1168				
Benzene	ND	3.72	7.44	ug/kg dry	50	08/31/23 18:02	5035A/8260D			
Toluene	ND	18.6	37.2	ug/kg dry	50	08/31/23 18:02	5035A/8260D			
Ethylbenzene	ND	9.31	18.6	ug/kg dry	50	08/31/23 18:02	5035A/8260D			
Xylenes, total	ND	27.9	55.8	ug/kg dry	50	08/31/23 18:02	5035A/8260D			
Surrogate: 1,4-Difluorobenzene (Surr)		Reco	very: 96 %	Limits: 80-120 %	5 1	08/31/23 18:02	5035A/8260D			
Toluene-d8 (Surr)			108 %	80-120 %	5 1	08/31/23 18:02	5035A/8260D			
4-Bromofluorobenzene (Surr)			95 %	79-120 %	5 I	08/31/23 18:02	5035A/8260D			

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 8 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

		Jiatile Organ	ic Compound	us by EPA 8.				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
	resuit							
B-2-GW (A3H1536-03)				Matrix: Wa	ater	Batch:	23H1153	
Acetone	ND	10.0	20.0	ug/L	1	08/31/23 12:51	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	08/31/23 12:51	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	08/31/23 12:51	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	08/31/23 12:51	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	08/31/23 12:51	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	08/31/23 12:51	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	08/31/23 12:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
Dichlorodifluoromethane	ND	1.00	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
,1-Dichloroethane	ND	0.200	0.400	ug/L	1	08/31/23 12:51	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	08/31/23 12:51	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	08/31/23 12:51	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	08/31/23 12:51	EPA 8260D	
rans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	08/31/23 12:51	EPA 8260D	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 9 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compoun	ds by EPA 8	260D			
Analyte	Sample Result	1 0			Method Ref.	Notes		
B-2-GW (A3H1536-03)				Matrix: W	ater	Batch:	23H1153	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	-
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	08/31/23 12:51	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	08/31/23 12:51	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	08/31/23 12:51	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	08/31/23 12:51	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Naphthalene	ND	2.50	5.00	ug/L	1	08/31/23 12:51	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	08/31/23 12:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
Tetrachloroethene (PCE)	18.9	0.200	0.400	ug/L	1	08/31/23 12:51	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	08/31/23 12:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	08/31/23 12:51	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	08/31/23 12:51	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	08/31/23 12:51	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	08/31/23 12:51	EPA 8260D	
,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
Vinyl chloride	ND	0.100	0.200	ug/L	1	08/31/23 12:51	EPA 8260D	
n,p-Xylene	ND	0.500	1.00	ug/L	1	08/31/23 12:51	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	08/31/23 12:51	EPA 8260D	

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-2-GW (A3H1536-03)				Matrix: Wate	r	Batch: 23H1153		
Surrogate: 1,4-Difluorobenzene (Surr)		Reco	very: 96 %	Limits: 80-120 %	1	08/31/23 12:51	EPA 8260D	
Toluene-d8 (Surr)			105 %	80-120 %	1	08/31/23 12:51	EPA 8260D	
4-Bromofluorobenzene (Surr)			100 %	80-120 %	1	08/31/23 12:51	EPA 8260D	
B-4-GW (A3H1536-06)				Matrix: Wate	r	Batch: 2	23H1153	
Acetone	ND	10.0	20.0	ug/L	1	08/31/23 13:14	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	08/31/23 13:14	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	08/31/23 13:14	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	08/31/23 13:14	EPA 8260D	
-Butanone (MEK)	ND	5.00	10.0	ug/L	1	08/31/23 13:14	EPA 8260D	
-Butylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
ec-Butylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
ert-Butylbenzene	ND	0.500	1.00	ug/L 1		08/31/23 13:14	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	08/31/23 13:14	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	08/31/23 13:14	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	08/31/23 13:14	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
1-Chlorotoluene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	08/31/23 13:14	EPA 8260D	
,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D	
,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D	
,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D	
Dichlorodifluoromethane	ND	1.00	1.00	ug/L	1	08/31/23 13:14	EPA 8260D	
,1-Dichloroethane	ND	0.200	0.400	ug/L	1	08/31/23 13:14	EPA 8260D	

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	as by EPA 8	260D				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Date Units Dilution Analyzed		Method Ref.	Notes	
B-4-GW (A3H1536-06)				Matrix: W	ater	Batch:	23H1153		
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	08/31/23 13:14	EPA 8260D		
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	08/31/23 13:14	EPA 8260D		
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	08/31/23 13:14	EPA 8260D		
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	08/31/23 13:14	EPA 8260D		
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D		
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
Ethylbenzene	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D		
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	08/31/23 13:14	EPA 8260D		
2-Hexanone	ND	5.00	10.0	ug/L	1	08/31/23 13:14	EPA 8260D		
Isopropylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
Methylene chloride	ND	5.00	10.0	ug/L	1	08/31/23 13:14	EPA 8260D		
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	08/31/23 13:14	EPA 8260D		
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
Naphthalene	ND	2.50	5.00	ug/L	1	08/31/23 13:14	EPA 8260D		
n-Propylbenzene	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D		
Styrene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	08/31/23 13:14	EPA 8260D		
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D		
Tetrachloroethene (PCE)	1.00	0.200	0.400	ug/L	1	08/31/23 13:14	EPA 8260D		
Toluene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	08/31/23 13:14	EPA 8260D		
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	08/31/23 13:14	EPA 8260D		
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	08/31/23 13:14	EPA 8260D		
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D		
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	08/31/23 13:14	EPA 8260D		
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	08/31/23 13:14	EPA 8260D		
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D		

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 12 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	60D					
	Sample	Detection	Reporting			Date				
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes		
B-4-GW (A3H1536-06)				Matrix: Wate	Batch:	ch: 23H1153				
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D			
Vinyl chloride	ND	0.100	0.200	ug/L	1	08/31/23 13:14	EPA 8260D			
m,p-Xylene	ND	0.500	1.00	ug/L	1	08/31/23 13:14	EPA 8260D			
o-Xylene	ND	0.250	0.500	ug/L	1	08/31/23 13:14	EPA 8260D			
Surrogate: 1,4-Difluorobenzene (Surr)		Reco	very: 97%	Limits: 80-120 %	6 I	08/31/23 13:14	EPA 8260D			
Toluene-d8 (Surr)			105 %	80-120 %	6 I	08/31/23 13:14	EPA 8260D			
4-Bromofluorobenzene (Surr)			100 %	80-120 %	6 I	08/31/23 13:14	EPA 8260D			

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Merenberg

Page 13 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### ANALYTICAL SAMPLE RESULTS

	Pe	ercent Dry W	eight				
Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
			Matrix: So	il	Batch:	23H1163	
84.6	1.00	1.00	%	1	09/01/23 06:46	EPA 8000D	
Matrix: Soil Batch: 23H116							
83.2	1.00	1.00	%	1	09/01/23 06:46	EPA 8000D	
Matrix: Soil					Batch:	23H1163	
83.2	1.00	1.00	%	1	09/01/23 06:46	EPA 8000D	
			Matrix: So	il	Batch:	23H1163	
86.6	1.00	1.00	%	1	09/01/23 06:46	EPA 8000D	
			Matrix: So	il	Batch: 23H1163		
90.6	1.00	1.00	%	1	09/01/23 06:46	EPA 8000D	
_		Matrix: Soil Batch: 23H1163					_
88.4	1.00	1.00	%	1	09/01/23 06:46	EPA 8000D	
	84.6 83.2 83.2 86.6	Sample Result         Detection Limit           84.6         1.00           83.2         1.00           83.2         1.00           86.6         1.00           90.6         1.00	Sample Result         Detection Limit         Reporting Limit           84.6         1.00         1.00           83.2         1.00         1.00           83.2         1.00         1.00           86.6         1.00         1.00           90.6         1.00         1.00	Result         Limit         Units           84.6         1.00         1.00         %           Matrix: So           83.2         1.00         1.00         %           Matrix: So           86.6         1.00         1.00         %           Matrix: So           90.6         1.00         1.00         %           Matrix: So           Matrix: So	Sample   Detection   Reporting   Limit   Units   Dilution	Sample   Detection   Limit   Limit   Units   Dilution   Date   Analyzed	Sample Result         Detection Limit         Reporting Limit         Units         Dilution Dilution         Date Analyzed         Method Ref.           Matrix: Soil         Batch: 23H1163           84.6         1.00         1.00         %         1         09/01/23 06:46         EPA 8000D           Matrix: Soil         Batch: 23H1163           83.2         1.00         1.00         %         1         09/01/23 06:46         EPA 8000D           Matrix: Soil         Batch: 23H1163           86.6         1.00         1.00         %         1         09/01/23 06:46         EPA 8000D           Matrix: Soil         Batch: 23H1163           90.6         1.00         1.00         %         1         09/01/23 06:46         EPA 8000D           Matrix: Soil         Batch: 23H1163           Matrix: Soil         Batch: 23H1163

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 14 of 40



#### **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### QUALITY CONTROL (QC) SAMPLE RESULTS

		D	iesel and/d	r Oil Hyd	rocarbor	s by NW	TPH-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0158 - EPA 3546 (Fu	iels)						So	il				
Blank (23I0158-BLK1)			Prepared	1: 09/07/23 0	4:07 Ana	yzed: 09/07	//23 07:44					
NWTPH-Dx												
Diesel	ND	10.0	20.0	mg/kg we	et 1							
Oil	ND	20.0	40.0	mg/kg we	et 1							
Surr: o-Terphenyl (Surr)		Reco	overy: 80 %	Limits: 50	-150 %	Dil	ution: 1x					
LCS (23I0158-BS1)			Prepared	1: 09/07/23 0	14:07 Ana	lyzed: 09/07	7/23 08:04					
NWTPH-Dx												
Diesel	116	10.0	20.0	mg/kg we	et 1	125		93	38-132%			
Surr: o-Terphenyl (Surr)		Rece	overy: 86 %	Limits: 50-	-150 %	Dil	ution: 1x					
Duplicate (23I0158-DUP1)			Prepared	d: 09/07/23 0	4:07 Ana	lyzed: 09/07	7/23 08:45					
QC Source Sample: Non-SDG (A3	310821-02RE	1)										
Diesel	6650	192	385	mg/kg we	et 20		6640			0.1	30%	
Oil	ND	385	769	mg/kg we	et 20		ND				30%	
Surr: o-Terphenyl (Surr)		R	ecovery: %	Limits: 50-	-150 %	Dil	ution: 20x					S-01
Duplicate (23I0158-DUP2)			Prepared	1: 09/07/23 0	8:39 Ana	lyzed: 09/07	7/23 19:59					
OC Source Sample: B-1-15 (A3H	1536-01)											
NWTPH-Dx												
Diesel	ND	11.5	23.1	mg/kg dr	y 1		ND				30%	
Oil	117	23.1	46.2	mg/kg dr	y 1		107			9	30%	
Surr: o-Terphenyl (Surr)		Reco	overy: 98 %	Limits: 50-	-150 %	Dil	ution: 1x					
Batch 23I0162 - EPA 3510C (F	uels/Acid	Ext.)					Wa	ter				
Blank (23I0162-BLK1)			Prepared	1: 09/07/23 1	2:43 Ana	yzed: 09/08	3/23 00:24					
NWTPH-Dx												
Diesel	ND	0.100	0.200	mg/L	1							
Oil	ND	0.200	0.400	mg/L	1							
Surr: o-Terphenyl (Surr)		Reco	overy: 80 %	Limits: 50-	-150 %	Dil	ution: 1x					
LCS (23I0162-BS1)			Prepared	1: 09/07/23 1	2:43 Anal	yzed: 09/08	3/23 00:47					
NWTPH-Dx												

Philip Naenberg

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### QUALITY CONTROL (QC) SAMPLE RESULTS

#### Diesel and/or Oil Hydrocarbons by NWTPH-Dx Detection Reporting Spike % REC **RPD** Source Limits RPD Analyte Result Ĺimit Units Dilution Amount Result % REC Limit Limit Notes Batch 23I0162 - EPA 3510C (Fuels/Acid Ext.) Water LCS (23I0162-BS1) Prepared: 09/07/23 12:43 Analyzed: 09/08/23 00:47 1.04 Diesel 0.100 0.200 1.25 83 36-132% mg/L Surr: o-Terphenyl (Surr) Recovery: 89 % Limits: 50-150 % Dilution: 1x LCS Dup (23I0162-BSD1) Prepared: 09/07/23 12:43 Analyzed: 09/08/23 01:10 Q-19 NWTPH-Dx 0.100 1.06 0.200 1.25 85 36-132% 2 30% Diesel mg/L 1 Recovery: 86 % Surr: o-Terphenyl (Surr) Limits: 50-150 % Dilution: 1x

Apex Laboratories

Philip Neimberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 16 of 40



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolir	ne Range H	ydrocarbo	ns (Benz	ene throu	igh Naph	thalene)	by NWTP	H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1153 - EPA 5030C							Wa	ter				
Blank (23H1153-BLK1)			Prepared	1: 08/31/23	09:34 Anal	yzed: 08/31	/23 12:28					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1							
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 89 %	Limits: 50	0-150 %	Dilı	tion: 1x					
1,4-Difluorobenzene (Sur)			107 %	50	)-150 %		"					
LCS (23H1153-BS2)			Prepared	1: 08/31/23	09:34 Anal	yzed: 08/31	/23 12:05					
NWTPH-Gx (MS)												
Gasoline Range Organics	0.522	0.0500	0.100	mg/L	1	0.500		104	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 95 %	Limits: 50	0-150 %	Dilı	ıtion: 1x					
1,4-Difluorobenzene (Sur)			105 %	50	)-150 %		"					
Duplicate (23H1153-DUP1)			Prepared	1: 08/31/23	09:34 Anal	yzed: 08/31	/23 17:03					
QC Source Sample: Non-SDG (A3	H1511-01)											
Gasoline Range Organics	ND	0.500	1.00	mg/L	10		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 90 %	Limits: 50	0-150 %	Dilı	tion: 1x					
1,4-Difluorobenzene (Sur)			109 %	50	)-150 %		"					
Duplicate (23H1153-DUP2)			Prepared	1: 08/31/23	09:34 Anal	yzed: 08/31	/23 22:24					
QC Source Sample: Non-SDG (A3	H1551-04)											
Gasoline Range Organics	4.35	0.500	1.00	mg/L	10		4.22			3	30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 91 %	Limits: 50	0-150 %	Dilı	tion: 1x					
1,4-Difluorobenzene (Sur)			107 %	50	-150 %		"					

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolii	ne Range H	lydrocarbo	ns (Ben	zene throu	igh Naphi	thalene)	by NWTP	H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1168 - EPA 5035A							Soi	il				
Blank (23H1168-BLK1)			Prepared	d: 08/31/23	12:00 Anal	yzed: 08/31/	/23 15:03					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2.50	5.00	mg/kg v	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Reco	overy: 90 %	Limits: 5	0-150 %	Dilı	ıtion: 1x					
1,4-Difluorobenzene (Sur)			108 %	5	0-150 %		"					
LCS (23H1168-BS2)			Prepared	1: 08/31/23	12:00 Anal	yzed: 08/31/	/23 14:31					
NWTPH-Gx (MS)												
Gasoline Range Organics	26.3	2.50	5.00	mg/kg v	vet 50	25.0		105	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	overy: 93 %	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			107 %	5	0-150 %		"					
Duplicate (23H1168-DUP1)			Prepared	1: 08/29/23	14:23 Anal	yzed: 08/31/	/23 15:53					
QC Source Sample: B-1-15 (A3H	1536-01)											
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2.87	5.75	mg/kg d	lry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	overy: 92 %	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			108 %	5	0-150 %		"					
Duplicate (23H1168-DUP2)			Prepared	1: 08/29/23	10:15 Anal	yzed: 08/31/	/23 19:20					
OC Source Sample: Non-SDG (A3	3H1537-01)									_	_	
Gasoline Range Organics	ND	2.19	4.38	mg/kg d	lry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 90 %	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			111 %	5	0-150 %		"					

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 18 of 40



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

			ВТЕХ	Compou	nds by E	PA 8260D	)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1168 - EPA 5035A							Soi	il				
Blank (23H1168-BLK1)			Prepared	1: 08/31/23 1	2:00 Ana	yzed: 08/31	/23 15:03					
5035A/8260D												
Benzene	ND	5.00	10.0	ug/kg we	t 50							
Toluene	ND	25.0	50.0	ug/kg we	t 50							
Ethylbenzene	ND	12.5	25.0	ug/kg we	t 50							
Xylenes, total	ND	37.5	75.0	ug/kg we	t 50							
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 95 %	Limits: 80-	120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			109 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			95 %	79-	120 %		"					
LCS (23H1168-BS1)			Prepared	1: 08/31/23 1	2:00 Ana	yzed: 08/31	/23 14:06					
5035A/8260D			*									
Benzene	1050	5.00	10.0	ug/kg we	t 50	1000		105	80-120%			
Toluene	1050	25.0	50.0	ug/kg we	t 50	1000		105	80-120%			
Ethylbenzene	1060	12.5	25.0	ug/kg we	t 50	1000		106	80-120%			
Xylenes, total	3150	37.5	75.0	ug/kg we	t 50	3000		105	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 96 %	Limits: 80-	120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			102 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			95 %	79-	120 %		"					
Duplicate (23H1168-DUP1)			Prepared	1: 08/29/23 1	4:23 Ana	yzed: 08/31	/23 15:53					
OC Source Sample: B-1-15 (A3H1 5035A/8260D	536-01)											
Benzene	ND	5.75	11.5	ug/kg dry	50		ND				30%	
Toluene	ND	28.7	57.5	ug/kg dry			ND				30%	
Ethylbenzene	ND	14.4	28.7	ug/kg dry			ND				30%	
Xylenes, total	ND	43.1	86.2	ug/kg dry			ND				30%	
Surr: 1,4-Difluorobenzene (Surr)			overy: 96 %	Limits: 80-		Dila	ution: 1x					
Toluene-d8 (Surr)		nece	107 %		120 %	Diii	" "					
4-Bromofluorobenzene (Surr)			96 %		120 %		"					
Duplicate (23H1168-DUP2)			Prepared	1: 08/29/23 1	0:15 Anal	lyzed: 08/31	/23 19:20					
QC Source Sample: Non-SDG (A3	H1537-01)		1									
Benzene	ND	4.38	8.77	ug/kg dry	50		ND				30%	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Merenberg



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

			BTEX	Compou	nds by E	PA 8260D						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1168 - EPA 5035A							Soi	I				
Duplicate (23H1168-DUP2)			Prepared	1: 08/29/23 1	0:15 Ana	yzed: 08/31	/23 19:20					
QC Source Sample: Non-SDG (A3)	H1537-01)											
Toluene	ND	21.9	43.8	ug/kg dr	y 50		ND				30%	
Ethylbenzene	ND	11.0	21.9	ug/kg dr	y 50		ND				30%	
Xylenes, total	ND	32.9	65.8	ug/kg dr	y 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 96 %	Limits: 80-	-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			110 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			93 %	79-	120 %		"					
Matrix Spike (23H1168-MS1)			Prepared	1: 08/29/23 1	3:20 Anal	lyzed: 08/31	/23 22:24					
QC Source Sample: Non-SDG (A3	H1537-07)											
5035A/8260D												
Benzene	1150	5.15	10.3	ug/kg dr	y 50	1030	ND	112	77-121%			
Toluene	1230	25.7	51.5	ug/kg dr	y 50	1030	ND	119	77-121%			
Ethylbenzene	1190	12.9	25.7	ug/kg dr	y 50	1030	ND	115	76-122%			
Xylenes, total	3490	38.6	77.2	ug/kg dr	y 50	3090	ND	113	78-124%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 93 %	Limits: 80-	-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			110 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			90 %	79-	120 %		"					

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

#### Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 23H1153 - EPA 5030C Water Blank (23H1153-BLK1) Prepared: 08/31/23 09:34 Analyzed: 08/31/23 12:28 EPA 8260D ND 10.0 20.0 Acetone ug/L ND 2.00 Acrylonitrile 1.00 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 ND Bromodichloromethane 0.500 1.00 ug/L 1 Bromoform ND 0.500 1.00 ug/L 1 5.00 Bromomethane ND 5.00 ug/L 1 2-Butanone (MEK) ND 5.00 10.0 ug/L 1 n-Butylbenzene ND 0.500 1.00 1 ug/L sec-Butylbenzene ND 0.500 1.00 ug/L 1 ND 0.500 tert-Butylbenzene 1.00 1 ug/L ---Carbon disulfide ND 5.00 10.0 ug/L 1 Carbon tetrachloride ND 0.500 ug/L 1.00 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 ND 5.00 5.00 Chloromethane 1 ug/L ---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 ug/L Dibromomethane ND 0.500 1.00 1 0.250 1,2-Dichlorobenzene ND 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 1.00 1.00 ug/L 1 ---1,1-Dichloroethane ND 0.200 0.400ug/L 1 0.200 1,2-Dichloroethane (EDC) ND 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 0.200 0.400 trans-1,2-Dichloroethene ND ug/L 1

Apex Laboratories

Philip Merenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 21 of 40



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

**GEM** 780 Stevens Project: P.O. Box 2212 Project Number: [none] Sisters, OR 97759 Project Manager: Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

# QUALITY CONTROL (QC) SAMPLE RESULTS Volatile Organic Compounds by EPA 8260D

#### % REC RPD Detection Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 23H1153 - EPA 5030C Water Blank (23H1153-BLK1) Prepared: 08/31/23 09:34 Analyzed: 08/31/23 12:28 ND 0.250 0.500 1,2-Dichloropropane ug/L ug/L ND 0.500 1.00 1 1,3-Dichloropropane ---2,2-Dichloropropane ND 0.500 1.00 ug/L 1 1,1-Dichloropropene ND 0.500 1.00 ug/L 1 ND 0.500 1.00 cis-1,3-Dichloropropene 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 10.0 2-Hexanone ND 5.00 ug/L 1 Isopropylbenzene ND 0.500 1.00 ug/L 1 ND 0.500 1.00 4-Isopropyltoluene ug/L 1 Methylene chloride ND 5.00 10.0 ug/L 1 ND 10.0 4-Methyl-2-pentanone (MiBK) 5.00 ug/L 1 ---Methyl tert-butyl ether (MTBE) ND 0.500 1.00 ug/L 1 ND 4.00 Naphthalene 2.00 ug/L 1 n-Propylbenzene ND 0.250 0.500 ug/L 1 ND 0.500 1.00 Styrene 1 ug/L 1,1,1,2-Tetrachloroethane ND 0.200 0.400 1 ug/L ND 1.1.2.2-Tetrachloroethane 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 ND 0.250 1,1,2-Trichloroethane 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 1

Surr: 1,4-Difluorobenzene (Surr) Recovery: 95 % Limits: 80-120 % Dilution: 1x

0.500

0.100

0.500

0.250

1.00

0.200

1.00

0.500

ND

ND

ND

ND

Apex Laboratories

Philip Merenberg

1,3,5-Trimethylbenzene

Vinyl chloride

m,p-Xylene

o-Xylene

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Page 22 of 40 Philip Nerenberg, Lab Director

ug/L

ug/L

ug/L

ug/L

ug/L

1

1

1

1



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

#### Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source % REC Result Units Dilution RPD Analyte Limit Limit Amount Result Limits Limit Notes Batch 23H1153 - EPA 5030C Water Blank (23H1153-BLK1) Prepared: 08/31/23 09:34 Analyzed: 08/31/23 12:28 Surr: Toluene-d8 (Surr) Recovery: 105 % Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 100 % 80-120 % Prepared: 08/31/23 09:34 Analyzed: 08/31/23 11:34 LCS (23H1153-BS1) EPA 8260D Acetone 38.3 10.0 20.0 ug/L 1 40.0 96 80-120% Acrylonitrile 17.5 1.00 2.00 ug/L 1 20.0 88 80-120% Benzene 18.3 0.100 0.200 1 20.0 91 80-120% ug/L 92 Bromobenzene 18.4 0.250 0.500 20.0 80-120% ug/L 1 ---Bromochloromethane 19.8 0.500 1.00 1 20.0 99 80-120% ug/L Bromodichloromethane 0.500 1.00 20.0 20.5 ug/L 1 103 80-120% Bromoform 22.3 0.500 1.00 ug/L 1 20.0 112 80-120% Bromomethane 18.6 5.00 5.00 ug/L1 20.0 93 80-120% 2-Butanone (MEK) 34.9 5.00 10.0 ug/L 1 40.0 87 80-120% n-Butylbenzene 0.500 1.00 ug/L 20.0 105 80-120% 21.0 1 -----sec-Butylbenzene 20.8 0.500 1.00 1 20.0 104 80-120% ug/L ug/L tert-Butylbenzene 20.0 0.500 1.00 20.0 100 80-120% 1 Carbon disulfide 19.9 5.00 10.0 ug/L 1 20.0 100 80-120% Carbon tetrachloride 21.1 0.500 1.00 ug/L 1 20.0 105 80-120% Chlorobenzene 20.1 0.250 0.500 ug/L 1 20.0 100 80-120% Chloroethane 5.00 5.00 20.0 106 80-120% 21.1 1 ug/L Chloroform 20.4 0.500 1.00 ug/L 1 20.0 102 80-120% Chloromethane 15.5 5.00 5.00 1 20.0 78 80-120% Q-55 ug/L 2-Chlorotoluene 19.5 0.500 1.00 ug/L 1 20.0 97 80-120% 4-Chlorotoluene 20.3 0.500 1.00 ug/L 1 20.0 102 80-120% Dibromochloromethane 21.9 0.500 1.00 ug/L 1 20.0 110 80-120% 1,2-Dibromo-3-chloropropane 17.5 2.50 5.00 ug/L 1 20.0 88 80-120% 1,2-Dibromoethane (EDB) 20.0 20.9 0.250 0.500 ug/L 1 104 80-120% Dibromomethane 20.1 0.500 1.00 1 20.0 101 80-120% ug/L 1,2-Dichlorobenzene 19.8 0.250 0.500 ug/L 1 20.0 99 80-120% 1,3-Dichlorobenzene 19.8 0.250 0.500 ug/L 1 20.0 99 80-120% 19.2 0.250 0.500 20.0 96 80-120% 1.4-Dichlorobenzene ug/L 1 Q-55 Dichlorodifluoromethane 15.1 1.00 1.00 ug/L 1 20.0 75 80-120% 1,1-Dichloroethane 20.3 0.200 0.400 20.0 80-120% ug/L 1 102

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 23 of 40



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## 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 23H1153 - EPA 5030C							Wa	ter				
LCS (23H1153-BS1)			Prepared	: 08/31/23	09:34 Anal	yzed: 08/31/	/23 11:34					
1,2-Dichloroethane (EDC)	21.9	0.200	0.400	ug/L	1	20.0		110	80-120%			
1,1-Dichloroethene	20.2	0.200	0.400	ug/L	1	20.0		101	80-120%			
eis-1,2-Dichloroethene	19.1	0.200	0.400	ug/L	1	20.0		95	80-120%			
rans-1,2-Dichloroethene	19.7	0.200	0.400	ug/L	1	20.0		98	80-120%			
,2-Dichloropropane	18.6	0.250	0.500	ug/L	1	20.0		93	80-120%			
,3-Dichloropropane	20.3	0.500	1.00	ug/L	1	20.0		102	80-120%			
2,2-Dichloropropane	21.9	0.500	1.00	ug/L	1	20.0		109	80-120%			
,1-Dichloropropene	18.6	0.500	1.00	ug/L	1	20.0		93	80-120%			
is-1,3-Dichloropropene	20.6	0.500	1.00	ug/L	1	20.0		103	80-120%			
rans-1,3-Dichloropropene	22.3	0.500	1.00	ug/L	1	20.0		112	80-120%			
Ethylbenzene	20.5	0.250	0.500	ug/L	1	20.0		102	80-120%			
Hexachlorobutadiene	18.6	2.50	5.00	ug/L	1	20.0		93	80-120%			
-Hexanone	33.2	5.00	10.0	ug/L	1	40.0		83	80-120%			
sopropylbenzene	20.4	0.500	1.00	ug/L	1	20.0		102	80-120%			
-Isopropyltoluene	20.4	0.500	1.00	ug/L	1	20.0		102	80-120%			
Methylene chloride	20.0	5.00	10.0	ug/L	1	20.0		100	80-120%			
-Methyl-2-pentanone (MiBK)	37.8	5.00	10.0	ug/L	1	40.0		95	80-120%			
Methyl tert-butyl ether (MTBE)	19.1	0.500	1.00	ug/L	1	20.0		95	80-120%			
Vaphthalene	17.2	2.00	4.00	ug/L	1	20.0		86	80-120%			
-Propylbenzene	20.2	0.250	0.500	ug/L	1	20.0		101	80-120%			
tyrene	19.6	0.500	1.00	ug/L	1	20.0		98	80-120%			
,1,1,2-Tetrachloroethane	20.0	0.200	0.400	ug/L	1	20.0		100	80-120%			
,1,2,2-Tetrachloroethane	19.1	0.250	0.500	ug/L	1	20.0		95	80-120%			
Tetrachloroethene (PCE)	19.6	0.200	0.400	ug/L	1	20.0		98	80-120%			
Coluene	19.9	0.500	1.00	ug/L	1	20.0		100	80-120%			
,2,3-Trichlorobenzene	18.0	1.00	2.00	ug/L	1	20.0		90	80-120%			
,2,4-Trichlorobenzene	17.8	1.00	2.00	ug/L	1	20.0		89	80-120%			
,1,1-Trichloroethane	20.8	0.200	0.400	ug/L	1	20.0		104	80-120%			
,1,2-Trichloroethane	19.8	0.250	0.500	ug/L	1	20.0		99	80-120%			
richloroethene (TCE)	18.4	0.200	0.400	ug/L	1	20.0		92	80-120%			
richlorofluoromethane	21.5	1.00	2.00	ug/L	1	20.0		107	80-120%			
,2,3-Trichloropropane	20.4	0.500	1.00	ug/L	1	20.0		102	80-120%			
,2,4-Trimethylbenzene	20.5	0.500	1.00	ug/L	1	20.0		102	80-120%			
,3,5-Trimethylbenzene	20.7	0.500	1.00	ug/L	1	20.0		104	80-120%			

Apex Laboratories

Philip Neimberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Co	mpounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1153 - EPA 5030C							Wa	ter				
CS (23H1153-BS1)			Prepared	1: 08/31/23	09:34 Ana	lyzed: 08/31	/23 11:34					
inyl chloride	16.7	0.100	0.200	ug/L	1	20.0		84	80-120%			
ı,p-Xylene	42.4	0.500	1.00	ug/L	1	40.0		106	80-120%			
-Xylene	19.9	0.250	0.500	ug/L	1	20.0		99	80-120%			
urr: 1,4-Difluorobenzene (Surr)		Reco	overy: 95 %	Limits: 80	0-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			102 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			93 %	80	-120 %		"					
Ouplicate (23H1153-DUP1)			Prepared	1: 08/31/23	09:34 Anal	lyzed: 08/31	/23 17:03					
OC Source Sample: Non-SDG (A3	H1511-01)											
cetone	ND	100	200	ug/L	10		ND				30%	
crylonitrile	ND	10.0	20.0	ug/L	10		ND				30%	
Benzene	ND	1.00	2.00	ug/L	10		ND				30%	
Fromobenzene	ND	2.50	5.00	ug/L	10		ND				30%	
romochloromethane	ND	5.00	10.0	ug/L	10		ND				30%	
Bromodichloromethane	ND	5.00	10.0	ug/L	10		ND				30%	
Bromoform	ND	5.00	10.0	ug/L	10		ND				30%	
Fromomethane	ND	50.0	50.0	ug/L	10		ND				30%	
-Butanone (MEK)	ND	50.0	100	ug/L	10		ND				30%	
-Butylbenzene	ND	5.00	10.0	ug/L	10		ND				30%	
ec-Butylbenzene	ND	5.00	10.0	ug/L	10		ND				30%	
ert-Butylbenzene	ND	5.00	10.0	ug/L	10		ND				30%	
Carbon disulfide	ND	50.0	100	ug/L	10		ND				30%	
Carbon tetrachloride	ND	5.00	10.0	ug/L	10		ND				30%	
Chlorobenzene	ND	2.50	5.00	ug/L	10		ND				30%	
Chloroethane	ND	50.0	50.0	ug/L	10		ND				30%	
Chloroform	ND	5.00	10.0	ug/L	10		ND				30%	
Chloromethane	ND	50.0	50.0	ug/L	10		ND				30%	
-Chlorotoluene	ND	5.00	10.0	ug/L	10		ND				30%	
-Chlorotoluene	ND	5.00	10.0	ug/L	10		ND				30%	
Dibromochloromethane	ND	5.00	10.0	ug/L	10		ND				30%	
,2-Dibromo-3-chloropropane	ND	25.0	50.0	ug/L	10		ND				30%	
,2-Dibromoethane (EDB)	ND	2.50	5.00	ug/L	10		ND				30%	
Dibromomethane	ND	5.00	10.0	ug/L	10		ND				30%	
,2-Dichlorobenzene	ND	2.50	5.00	ug/L	10		ND				30%	

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

#### Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source % REC Analyte Result Units Dilution RPD Limit Limit Amount Result Limits Limit Notes Batch 23H1153 - EPA 5030C Water Duplicate (23H1153-DUP1) Prepared: 08/31/23 09:34 Analyzed: 08/31/23 17:03 QC Source Sample: Non-SDG (A3H1511-01) 1,3-Dichlorobenzene ND 2.50 5.00 ug/L 10 ND 30% ND 2.50 1,4-Dichlorobenzene 5.00 ug/L 10 ND 30% ug/L Dichlorodifluoromethane ND 10.0 10.0 10 ND 30% 1,1-Dichloroethane ND 2.00 4.00 ug/L 10 ND 30% 1,2-Dichloroethane (EDC) ND 2.00 4.00 ug/L 10 ND 30% ------ND 2.00 1,1-Dichloroethene 4.00 ug/L 10 ND 30% cis-1,2-Dichloroethene ND 2.00 4.00 ug/L 10 ND 30% trans-1,2-Dichloroethene ND 30% 2.00 4.00 ug/L 10 ND 1,2-Dichloropropane ND 2.50 5.00 ug/L 10 ND 30% 1,3-Dichloropropane ND 5.00 10.0 ug/L 10 ND 30% 2,2-Dichloropropane ND 5.00 10.0 ug/L 10 ND 30% ND 5.00 10.0 30% 1,1-Dichloropropene ug/L 10 ND cis-1,3-Dichloropropene ND 5.00 10.0 ug/L 10 ND 30% ND 5.00 10.0 30% trans-1,3-Dichloropropene ug/L 10 ND ug/L Ethylbenzene ND 2.50 5.00 10 ND 30% Hexachlorobutadiene ND 25.0 50.0 ug/L 10 ND \_\_\_ 30% 2-Hexanone ND 50.0 100 ug/L 10 ND 30% ND 5.00 30% Isopropylbenzene 10.0 10 ND ug/L 4-Isopropyltoluene ND 5.00 10.0 ug/L 10 ND 30% ND 100 Methylene chloride 50.0 10 ND 30% ug/L 4-Methyl-2-pentanone (MiBK) ND 50.0 100 ug/L 10 ND 30% Methyl tert-butyl ether (MTBE) ND 5.00 10.0 ug/L 10 ND ---30% Naphthalene ND 20.0 40.0 ug/L 10 ND 30% ND 30% n-Propylbenzene 2.50 5.00 10 ND ug/L ND 5.00 10.0 30% Styrene ug/L 10 ND ND 2.00 4.00 10 ND 30% 1.1.1.2-Tetrachloroethane ug/L 1,1,2,2-Tetrachloroethane ND 2.50 5.00 10 ND 30% ug/L Tetrachloroethene (PCE) ND 2.00 4.00 ug/L 10 ND ------30% ND 5.00 10.0 ug/L 10 ND 30% ND 10.0 20.0 10 30% 1,2,3-Trichlorobenzene ug/L ND ---1,2,4-Trichlorobenzene ND 10.0 20.0 ug/L 10 ND 30% 2.00 4.00 1,1,1-Trichloroethane ND 10 ND 30% ug/L 1,1,2-Trichloroethane ND 2.50 5.00 ug/L 10 ND 30%

Apex Laboratories

Philip Merenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 26 of 40



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

		•	Volatile Or	ganic Co	mpounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1153 - EPA 5030C							Wat	ter				
Duplicate (23H1153-DUP1)			Prepared	1: 08/31/23	09:34 Anal	yzed: 08/31/	/23 17:03					
QC Source Sample: Non-SDG (A3	H1511-01)											
Trichloroethene (TCE)	ND	2.00	4.00	ug/L	10		ND				30%	
Trichlorofluoromethane	ND	10.0	20.0	ug/L	10		ND				30%	
,2,3-Trichloropropane	ND	5.00	10.0	ug/L	10		ND				30%	
,2,4-Trimethylbenzene	ND	5.00	10.0	ug/L	10		ND				30%	
,3,5-Trimethylbenzene	ND	5.00	10.0	ug/L	10		ND				30%	
Vinyl chloride	ND	1.00	2.00	ug/L	10		ND				30%	
n,p-Xylene	ND	5.00	10.0	ug/L	10		ND				30%	
-Xylene	ND	2.50	5.00	ug/L	10		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 97%	Limits: 80	0-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			105 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			98 %	80	-120 %		"					
QC Source Sample: Non-SDG (A3) Acetone	H1551-04) ND	200	200	ug/L	10		ND				30%	
		200	200	/*	10		NID				200/	
Acrylonitrile	ND	70.0	70.0	ug/L	10		ND				30%	R
Benzene	6.50	1.00	2.00	ug/L	10		6.30			3	30%	T.
Bromobenzene	ND	2.50	5.00	ug/L	10		ND				30%	
Bromochloromethane	ND	5.00	10.0	ug/L	10		ND				30%	
Bromodichloromethane	ND	5.00	10.0	ug/L	10		ND				30%	
Bromoform	ND	5.00	10.0	ug/L	10		ND				30%	
Bromomethane	ND	50.0	50.0	ug/L	10		ND				30%	
2-Butanone (MEK)	ND ND	50.0	100	ug/L ug/L	10		ND				30%	
-Butylbenzene	ND ND	5.00	10.0	ug/L ug/L	10		ND ND				30%	
ec-Butylbenzene	6.90	5.00	10.0	ug/L	10		5.80			17	30%	
ert-Butylbenzene	0.90 ND	5.00	10.0	ug/L ug/L	10		3.80 ND				30%	
Carbon disulfide	ND	50.0	10.0	ug/L	10		ND				30%	
Carbon disumde	ND ND	5.00	10.0	ug/L ug/L	10		ND ND				30%	
Chlorobenzene	ND ND	2.50	5.00	ug/L ug/L	10		ND ND				30%	
Chloroethane	ND ND	50.0	50.0	ug/L ug/L	10		ND ND				30%	
Chloroform	ND ND	5.00	10.0	ug/L ug/L	10		ND ND				30%	
Chloromethane	ND ND	50.0	50.0	ug/L ug/L	10		ND ND				30%	
-Chlorotoluene	ND ND	5.00	10.0	ug/L ug/L	10		ND ND				30%	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Namberg



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

#### Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source % REC Analyte Result Limit Units Dilution RPD Limit Amount Result Limits Limit Notes Batch 23H1153 - EPA 5030C Water Duplicate (23H1153-DUP2) Prepared: 08/31/23 09:34 Analyzed: 08/31/23 22:24 QC Source Sample: Non-SDG (A3H1551-04) 4-Chlorotoluene ND 5.00 10.0 ug/L 10 ND 30% ND 5.00 10.0 10 Dibromochloromethane ug/L ND 30% ug/L 1,2-Dibromo-3-chloropropane ND 25.0 50.0 10 ND 30% 1,2-Dibromoethane (EDB) ND 2.50 5.00 ug/L 10 ND 30% Dibromomethane ND 5.00 10.0 10 ND 30% ug/L ------ND 2.50 1,2-Dichlorobenzene 5.00 ug/L 10 ND 30% 1,3-Dichlorobenzene ND 2.50 5.00 ug/L 10 ND 30% ND ND 30% 1,4-Dichlorobenzene 2.50 5.00 ug/L 10 Dichlorodifluoromethane ND 10.0 10.0 ug/L 10 ND 30% 1,1-Dichloroethane ND 2.00 4.00 ug/L 10 ND 30% 1,2-Dichloroethane (EDC) ND 2.00 4.00 ug/L 10 ND 30% 1,1-Dichloroethene ND 2.00 4.00 10 30% ug/L ND cis-1,2-Dichloroethene ND 2.00 4.00 ug/L 10 ND 30% ND 2.00 4.00 10 30% trans-1,2-Dichloroethene ug/L ND ug/L 1,2-Dichloropropane ND 2.50 5.00 10 ND 30% 1,3-Dichloropropane ND 5.00 10.0 ug/L 10 ND \_\_\_ 30% 2,2-Dichloropropane ND 5.00 10.0 ug/L 10 ND 30% ND 5.00 10.0 30% 1,1-Dichloropropene 10 ND ug/L ND cis-1,3-Dichloropropene 5.00 10.0 ug/L 10 ND 30% 10.0 trans-1,3-Dichloropropene ND 5.00 10 ND 30% ug/L 3 Ethylbenzene 183 2.50 5.00 ug/L 10 177 30% Hexachlorobutadiene ND 25.0 50.0 ug/L 10 ND ---30% 2-Hexanone ND 50.0 100 ug/L 10 ND 30% 15.3 30% Isopropylbenzene 5.00 10.0 10 14.9 3 ug/L ND 5.00 10.0 30% 4-Isopropyltoluene ug/L 10 ND ND 50.0 100 10 ND 30% Methylene chloride ug/L 4-Methyl-2-pentanone (MiBK) ND 50.0 100 10 ND 30% ug/L 5.00 Methyl tert-butyl ether (MTBE) ND 10.0 ug/L 10 ND ------30% Naphthalene 28.7 20.0 40.0 ug/L 10 28.8 0.3 30% J 67.3 2.50 5.00 10 30% n-Propylbenzene ug/L 65.9 2 Styrene ND 5.00 10.0 ug/L 10 ND 30% ND 2.00 4.00 10 ND 30% 1.1.1.2-Tetrachloroethane ug/L ---1,1,2,2-Tetrachloroethane ND 2.50 5.00 ug/L 10 ND 30%

Apex Laboratories

Philip Merenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 28 of 40



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

 GEM
 Project:
 780 Stevens

 P.O. Box 2212
 Project Number:
 [none]
 Report ID:

 Sisters, OR 97759
 Project Manager:
 Carrie Beveridge
 A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Or	ganic Co	mpounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1153 - EPA 5030C							Wat	ter				
Duplicate (23H1153-DUP2)			Prepared	: 08/31/23	09:34 Anal	yzed: 08/31/	/23 22:24					
QC Source Sample: Non-SDG (A3	H1551-04)											
Tetrachloroethene (PCE)	ND	2.00	4.00	ug/L	10		ND				30%	
Toluene	ND	5.00	10.0	ug/L	10		ND				30%	
1,2,3-Trichlorobenzene	ND	10.0	20.0	ug/L	10		ND				30%	
1,2,4-Trichlorobenzene	ND	10.0	20.0	ug/L	10		ND				30%	
1,1,1-Trichloroethane	ND	2.00	4.00	ug/L	10		ND				30%	
1,1,2-Trichloroethane	ND	2.50	5.00	ug/L	10		ND				30%	
Trichloroethene (TCE)	ND	2.00	4.00	ug/L	10		ND				30%	
Trichlorofluoromethane	ND	10.0	20.0	ug/L	10		ND				30%	
1,2,3-Trichloropropane	ND	5.00	10.0	ug/L	10		ND				30%	
1,2,4-Trimethylbenzene	254	5.00	10.0	ug/L	10		245			3	30%	
1,3,5-Trimethylbenzene	18.1	5.00	10.0	ug/L	10		17.4			4	30%	
Vinyl chloride	ND	1.00	2.00	ug/L	10		ND				30%	
n,p-Xylene	126	5.00	10.0	ug/L	10		120			5	30%	
o-Xylene	7.10	2.50	5.00	ug/L	10		6.80			4	30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 99 %	Limits: 80	0-120 %	Dilu	ıtion: 1x					
Toluene-d8 (Surr)			105 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			96 %	80	)-120 %		"					
Matrix Spike (23H1153-MS1)			Prepared	1: 08/31/23	09:34 Anal	yzed: 08/31/	/23 18:11					
QC Source Sample: Non-SDG (A3	H1510-01)											
EPA 8260D												
Acetone	69.6	10.0	20.0	ug/L	1	40.0	29.4	100	39-160%			
Acrylonitrile	21.0	1.00	2.00	ug/L	1	20.0	ND	105	63-135%			
Benzene	21.1	0.100	0.200	ug/L	1	20.0	ND	105	79-120%			
Bromobenzene	19.3	0.250	0.500	ug/L	1	20.0	ND	96	80-120%			
Bromochloromethane	23.3	0.500	1.00	ug/L	1	20.0	ND	116	78-123%			
Bromodichloromethane	22.3	0.500	1.00	ug/L	1	20.0	ND	111	79-125%			
Bromoform	21.7	0.500	1.00	ug/L	1	20.0	ND	109	66-130%			
Bromomethane	23.8	5.00	5.00	ug/L	1	20.0	ND	119	53-141%			
2-Butanone (MEK)	44.0	5.00	10.0	ug/L	1	40.0	ND	110	56-143%			
n-Butylbenzene	23.0	0.500	1.00	ug/L	1	20.0	ND	115	75-128%			
D + 11	22.6	0.500	1.00	ug/L	1	20.0	ND	113	77-126%			
sec-Butylbenzene	22.0	0.500	1.00	ug/L	1	20.0	ND	113	//-120/0			

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

#### Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source Result Units Dilution % REC RPD Analyte Limit Limit Amount Result Limits Limit Notes Batch 23H1153 - EPA 5030C Water Matrix Spike (23H1153-MS1) Prepared: 08/31/23 09:34 Analyzed: 08/31/23 18:11 QC Source Sample: Non-SDG (A3H1510-01) Carbon disulfide 23.6 5.00 10.0 ug/L 1 20.0 ND 118 64-133% 20.0 Carbon tetrachloride 23.8 0.500 1.00 ug/L 1 ND 119 72-136% ug/L Chlorobenzene 21.4 0.250 0.500 1 20.0 ND 107 80-120% Chloroethane 27.0 5.00 5.00 ug/L 1 20.0 ND 135 60-138% Chloroform 23.0 0.500 1.00 1 20.0 ND 115 79-124% ug/L 20.0 O-54 Chloromethane 19.0 5.00 5.00 ug/L 1 ND 95 50-139% ug/L 2-Chlorotoluene 20.9 0.500 1.00 1 20.0 ND 105 79-122% 20.0 ND 109 4-Chlorotoluene 21.8 0.500 1.00 ug/L 1 78-122% Dibromochloromethane 21.6 0.500 1.00 ug/L 1 20.0 ND 108 74-126% 1,2-Dibromo-3-chloropropane 18.5 2.50 5.00 ug/L 1 20.0 ND 93 62-128% 1,2-Dibromoethane (EDB) 21.3 0.250 0.500 ug/L 1 20.0 ND 106 77-121% 0.500 1.00 20.0 ND 79-123% Dibromomethane 21.5 ug/L 1 108 20.0 1,2-Dichlorobenzene 20.4 0.250 0.500 ug/L 1 ND 102 80-120% 20.0 20.9 0.250 0.500 ND 105 1,3-Dichlorobenzene ug/L 1 80-120% ug/L 1,4-Dichlorobenzene 20.6 0.250 0.500 1 20.0 ND 103 79-120% Dichlorodifluoromethane 18.0 1.00 1.00 ug/L 1 20.0 ND 90 32-152% \_\_\_ O-54a 1,1-Dichloroethane 23.5 0.200 0.400 ug/L 1 20.0 ND 117 77-125% 23.7 0.200 20.0 ND 1,2-Dichloroethane (EDC) 0.400 119 73-128% ug/L 1 20.0 71-131% 1,1-Dichloroethene 23.4 0.200 0.400 ug/L 1 ND 117 cis-1,2-Dichloroethene 0.200 0.400 21.7 20.0 ND 108 78-123% ug/L 1 trans-1,2-Dichloroethene 0.200 0.400 20.0 ND 75-124% 23.1 ug/L 1 115 1,2-Dichloropropane 21.6 0.250 0.500 ug/L 1 20.0 ND 108 78-122% 1,3-Dichloropropane 21.0 0.500 1.00 ug/L 1 20.0 ND 105 80-120% 20.0 ND 107 60-139% 2,2-Dichloropropane 21.4 0.500 1.00 1 ug/L 22.2 0.500 20.0 ND 79-125% 1,1-Dichloropropene 1.00 ug/L 1 111 20.0 20.0 0.500 1.00 ND 100 75-124% cis-1,3-Dichloropropene ug/L 1 trans-1,3-Dichloropropene 22.0 0.500 1.00 20.0 ND 73-127% ug/L 1 110 20.0 79-121% Ethylbenzene 22.0 0.250 0.500 ug/L 1 ND 110 Hexachlorobutadiene 19.6 2.50 5.00 ug/L 1 20.0 ND 98 66-134% 2-Hexanone 38.6 5.00 10.0 1 40.0 ND 57-139% ug/L 96 Isopropylbenzene 22.1 0.500 1.00 1 20.0 ND 110 72-131% ug/L 22.2 0.500 1.00 20.0 4-Isopropyltoluene 1 ND 111 77-127% ug/L ---Methylene chloride 20.6 5.00 10.0 ug/L 1 20.0 ND 103 74-124%

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 30 of 40



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

#### Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 23H1153 - EPA 5030C Water Matrix Spike (23H1153-MS1) Prepared: 08/31/23 09:34 Analyzed: 08/31/23 18:11 QC Source Sample: Non-SDG (A3H1510-01) 4-Methyl-2-pentanone (MiBK) 41.5 5.00 10.0 ug/L 1 40.0 ND 104 67-130% Methyl tert-butyl ether (MTBE) 0.500 20.0 20.2 1.00 ug/L 1 ND 101 71-124% Naphthalene 18.5 2.00 4.00 ug/L 1 20.0 ND 93 61-128% n-Propylbenzene 22.4 0.250 0.500 ug/L 1 20.0 ND 112 76-126% 21.0 0.500 1.00 ug/L 1 20.0 ND 105 78-123% Styrene 1,1,1,2-Tetrachloroethane 20.4 0.200 20.0 102 0.400ug/L 1 ND 78-124% 1,1,2,2-Tetrachloroethane 21.0 0.250 0.500 ug/L 1 20.0 ND 105 71-121% Tetrachloroethene (PCE) 21.2 0.400 20.0 106 74-129% 0.200 ug/L 1 ND Toluene 21.4 0.500 1.00 ug/L 1 20.0 ND 107 80-121% 1,2,3-Trichlorobenzene 18.3 1.00 2.00 ug/L 1 20.0 ND 92 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 23.4 0.200 0.400 20.0 ND 74-131% ug/L 1 117 0.250 20.0 80-120% 1,1,2-Trichloroethane 20.5 0.500 ug/L 1 ND 102 20.0 Trichloroethene (TCE) 20.8 0.200 0.400 ND 104 79-123% ug/L 1 1.00 Trichlorofluoromethane 25.6 2.00 ug/L 1 20.0 ND 128 65-141% 1,2,3-Trichloropropane 20.7 0.500 1.00 ug/L 1 20.0 ND 104 73-122% \_\_\_ 1,2,4-Trimethylbenzene 22.0 0.500 1.00 ug/L 1 20.0 ND 110 76-124% 1,3,5-Trimethylbenzene 22.0 0.500 20.0 75-124% 1.00 ND 110 ug/L 1 Vinyl chloride 20.8 0.100 0.200 20.0 ND 104 58-137% ug/L 1 0.500 1.00 40.0 m,p-Xylene 45.6 ND 80-121% ug/L 1 114 0.250 0.500 20.0 ND 106 78-122% o-Xylene 21.1 ug/L Surr: 1,4-Difluorobenzene (Surr) Recovery: 98 % Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 101 % 80-120 % 4-Bromofluorobenzene (Surr) 92 % 80-120 %

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Weig	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1163 - Total Solids (I	Dry Weigl	nt) - 2022					Soi	I				
Duplicate (23H1163-DUP1)			Prepared	: 08/31/23	11:33 Anal	yzed: 09/01/	/23 06:46					
QC Source Sample: Non-SDG (A3)	H1522-01)											
% Solids	84.8	1.00	1.00	%	1		87.1			3	10%	
Duplicate (23H1163-DUP2)			Prepared	: 08/31/23	11:33 Anal	yzed: 09/01/	/23 06:46					
QC Source Sample: Non-SDG (A3	H1522-02)											
% Solids	89.3	1.00	1.00	%	1		87.8			2	10%	
Duplicate (23H1163-DUP3)			Prepared	: 08/31/23	11:33 Anal	yzed: 09/01/	/23 06:46					
QC Source Sample: Non-SDG (A3	H1522-03)											
% Solids	92.0	1.00	1.00	%	1		92.5			0.5	10%	
Duplicate (23H1163-DUP4)			Prepared	: 08/31/23	11:33 Anal	yzed: 09/01/	/23 06:46					
QC Source Sample: Non-SDG (A3	H1522-04)											
% Solids	90.4	1.00	1.00	%	1		92.3			2	10%	
Duplicate (23H1163-DUP5)			Prepared	: 08/31/23	19:18 Anal	yzed: 09/01/	/23 06:46					
QC Source Sample: Non-SDG (A3	H1545-01)											
% Solids	76.4	1.00	1.00	%	1		77.2			1	10%	
Duplicate (23H1163-DUP6)			Prepared	: 08/31/23	19:18 Anal	yzed: 09/01/	/23 06:46					
QC Source Sample: Non-SDG (A3)	H1545-14)											
% Solids	76.0	1.00	1.00	%	1		74.8			2	10%	
Duplicate (23H1163-DUP7)			Prepared	: 08/31/23	19:18 Anal	yzed: 09/01/	/23 06:46					
QC Source Sample: Non-SDG (A3	H1567-01)											
% Solids	77.7	1.00	1.00	%	1		77.4			0.5	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

#### SAMPLE PREPARATION INFORMATION

		Diesel an	d/or Oil Hydrocarbor	s by NWTPH-Dx			
Prep: EPA 3510C (F	uels/Acid Ext.)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23I0162							
A3H1536-03	Water	NWTPH-Dx	08/29/23 16:11	09/07/23 12:43	850mL/5mL	1000mL/5mL	1.18
A3H1536-06	Water	NWTPH-Dx	08/30/23 10:00	09/07/23 12:43	850mL/5mL	1000mL/5mL	1.18
Prep: EPA 3546 (Fu	els)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23I0158							
A3H1536-01	Soil	NWTPH-Dx	08/29/23 14:23	09/07/23 08:39	10.15g/5mL	10g/5mL	0.99
A3H1536-02	Soil	NWTPH-Dx	08/29/23 15:46	09/07/23 08:39	10.65g/5mL	10g/5mL	0.94
A3H1536-04	Soil	NWTPH-Dx	08/29/23 17:00	09/07/23 08:39	10.76g/5mL	10g/5mL	0.93
A3H1536-05	Soil	NWTPH-Dx	08/30/23 09:30	09/07/23 08:39	10.4g/5mL	10g/5mL	0.96
A3H1536-07	Soil	NWTPH-Dx	08/30/23 10:15	09/07/23 08:39	10.84g/5mL	10g/5mL	0.92
A3H1536-08RE1	Soil	NWTPH-Dx	08/30/23 12:05	09/07/23 08:39	10.75g/5mL	10g/5mL	0.93

	Gas	soline Range Hydrocart	oons (Benzene thro	ugh Naphthalene) b	y NWTPH-Gx		
Prep: EPA 5030C					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23H1153							
A3H1536-03	Water	NWTPH-Gx (MS)	08/29/23 16:11	08/31/23 09:35	5mL/5mL	5mL/5mL	1.00
A3H1536-06	Water	NWTPH-Gx (MS)	08/30/23 10:00	08/31/23 09:35	5mL/5mL	5mL/5mL	1.00
Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23H1168							
A3H1536-01	Soil	NWTPH-Gx (MS)	08/29/23 14:23	08/29/23 14:23	6.11g/5mL	5g/5mL	0.82
A3H1536-02	Soil	NWTPH-Gx (MS)	08/29/23 15:46	08/29/23 15:46	8.04g/5mL	5g/5mL	0.62
A3H1536-04	Soil	NWTPH-Gx (MS)	08/29/23 17:00	08/29/23 17:00	7.73g/5mL	5g/5mL	0.65
A3H1536-05	Soil	NWTPH-Gx (MS)	08/30/23 09:30	08/30/23 09:30	8.59g/5mL	5g/5mL	0.58
A3H1536-07	Soil	NWTPH-Gx (MS)	08/30/23 10:15	08/30/23 10:15	16.81g/5mL	5g/5mL	0.30
A3H1536-08	Soil	NWTPH-Gx (MS)	08/30/23 12:05	08/30/23 12:05	9.22g/5mL	5g/5mL	0.54

		ВТ	EX Compounds by E	EPA 8260D			
Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23H1168	Matrix	Method	Sampled	Prepared	Initial/Timar		

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

## SAMPLE PREPARATION INFORMATION

		ВТ	EX Compounds by E	PA 8260D			
Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A3H1536-01	Soil	5035A/8260D	08/29/23 14:23	08/29/23 14:23	6.11g/5mL	5g/5mL	0.82
A3H1536-02	Soil	5035A/8260D	08/29/23 15:46	08/29/23 15:46	8.04g/5mL	5g/5mL	0.62
A3H1536-04	Soil	5035A/8260D	08/29/23 17:00	08/29/23 17:00	7.73g/5mL	5g/5mL	0.65
A3H1536-05	Soil	5035A/8260D	08/30/23 09:30	08/30/23 09:30	8.59g/5mL	5g/5mL	0.58
A3H1536-07	Soil	5035A/8260D	08/30/23 10:15	08/30/23 10:15	16.81g/5mL	5g/5mL	0.30
A3H1536-08	Soil	5035A/8260D	08/30/23 12:05	08/30/23 12:05	9.22g/5mL	5g/5mL	0.54

		Volatile	Organic Compounds	by EPA 8260D			·
Prep: EPA 5030C					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23H1153							
A3H1536-03	Water	EPA 8260D	08/29/23 16:11	08/31/23 09:35	5mL/5mL	5mL/5mL	1.00
A3H1536-06	Water	EPA 8260D	08/30/23 10:00	08/31/23 09:35	5mL/5mL	5mL/5mL	1.00

			Percent Dry We	ight			
Prep: Total Solids (	Ory Weight) - 2022				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23H1163							
A3H1536-01	Soil	EPA 8000D	08/29/23 14:23	08/31/23 11:33			NA
A3H1536-02	Soil	EPA 8000D	08/29/23 15:46	08/31/23 11:33			NA
A3H1536-04	Soil	EPA 8000D	08/29/23 17:00	08/31/23 11:33			NA
A3H1536-05	Soil	EPA 8000D	08/30/23 09:30	08/31/23 11:33			NA
A3H1536-07	Soil	EPA 8000D	08/30/23 10:15	08/31/23 11:33			NA
A3H1536-08	Soil	EPA 8000D	08/30/23 12:05	08/31/23 11:33			NA

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

 GEM
 Project:
 780 Stevens

 P.O. Box 2212
 Project Number:
 [none]
 Report ID:

 Sisters, OR 97759
 Project Manager:
 Carrie Beveridge
 A3H1536 - 09 12 23 1251

#### **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-19 Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- 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 -5%. 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.
- R-02 The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-01 Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- S-05 Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

Apex Laboratories

Philip Menberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

 GEM
 Project:
 780 Stevens

 P.O. Box 2212
 Project Number:
 [none]
 Report ID:

 Sisters, OR 97759
 Project Manager:
 Carrie Beveridge
 A3H1536-09 12 23 1251

#### **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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

#### 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).

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

 GEM
 Project:
 780 Stevens

 P.O. Box 2212
 Project Number:
 [none]
 Report ID:

 Sisters, OR 97759
 Project Manager:
 Carrie Beveridge
 A3H1536 - 09 12 23 1251

#### REPORTING NOTES AND CONVENTIONS (Cont.):

#### 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.
- -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, if results are not reported to the MDL.

#### **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

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 37 of 40



#### Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

 GEM
 Project:
 780 Stevens

 P.O. Box 2212
 Project Number:
 [none]
 Report ID:

 Sisters, OR 97759
 Project Manager:
 Carrie Beveridge
 A3H1536 - 09 12 23 1251

#### 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 <u>exception</u> 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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 38 of 40



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEM Project: 780 Stevens

P.O. Box 2212Project Number: [none]Report ID:Sisters, OR 97759Project Manager: Carrie BeveridgeA3H1536 - 09 12 23 1251

			0	3		.00			1	480 Staven	2	U	3	1		Г					
		rroject mgr.	1000 124		Phone:	بآر	Troject N	120	E L	<b>* * * * * * * * * *</b>	3	12	3	5	Cheenday Con con		PO #				
Sampled by:					4.00			1100	Lacrasia		CIP III		4	A1.YS	AVALYSIB REQUEST		To the second				
Site Location:			<u> </u>							38					K' EP' CG'	CI.P					
State (U) A County Burken SAMPLE ID	ETAG	TIME	# OF CONTAINERS	UWTPH-HCID	NWTPH-Gx	8700 BLEX	8700 KBDW AOC <sup>8</sup>	8260 Halo VOCs	8766 VOCs Full List	8270 SEMI-Vols Full L	8087 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	J. Sb, As, Ba, Be, Re, Sa, Cn, Fe, Ig, Ma, Ma, Mo, Ni, e, Ag, Na, Tl, V, Zn (OTAL DISS, T	TCLP Metals (8)					old Sample
B-1-15	178	10.00	14		Ţ	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	,		+	+	╂	╀	1_		S					1	1
8-2-15	8(र्भ ।ऽप	S 光			X	美	L,		1	<del> </del>		ļ	<u> </u>							1	<del>                                     </del>
8-2 GM	8	3	3		X	X			<del> </del>		ļ	<u> </u>								_	
8-3-15	र्द्ध इ	3	5 3		文	文文义				-	-	ļ	<u> </u>							1	
11-4-12	∞(}3	130	5 3		×	×						ļ	<u> </u>								<del></del>
B-4 GW	6/30 600	1	3		X	メメ			<b></b> -	-		ļ									
21-2-12			5 3		メ	メメ				-											
51-9-8	08/a	126 5	2		X	XX				$\vdash$											
		+	+		+				_	-		_						$\perp$			
Standard Tur	Standard Turn Around Time (TAT) = 10 Business Days	e (TAT) = 1	0 Business	Days	+	-	]	11	-   5	SPECIAL INSTRUCTIONS:	LINS		Į.	];;;							1
	1 Day	2 Day	lay	3 Day	'ay																
TAT Requested (circle)	S Day	Stan	Standard	Other:	 #																**
	SAMPLES ARE HELD FOR 30 DAYS	FOR 30 DA	S.I.						Н												
SEPART SEPART SEPTEMBER SE	2/31/2018	Sign Sign	RECEIVED BY: Signatury:	2	~	Date:	1/8	12	S, R	RELINQUISHED BY: Signature:	VISHE	KB GD		_	Date:		RECEIVED BY: Signature:	,	Date:		
Some Bunk	743		Printed Name:	>		ig (1)	7	1 2	Æ	Printed Name	STEC.				Пте:		Printed Name:		Time:		
CHILD WILL		<u>5</u>	Company:						0	Company:							Company:				

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 39 of 40



## **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GEMProject:780 StevensP.O. Box 2212Project Number:[none]Sisters, OR 97759Project Manager:Carrie Beveridge

Report ID: A3H1536 - 09 12 23 1251

Client:	r ==				t WO#: A3	H 1536	
Project/Pro	oject #:	180 ste	vens				
Delivery In		1					
	- 1	23 @ 743				-	
Delivered b		ESSFedEx	·····				
Cooler Insp	pection Date/	time inspected:	A comment	743 I	Ву:	M	
Chain of C	ustody included						
Signed/date	ed by client?	Yes 1					
Temperatur	re (°C)	Cooler #1 Cool	er #2 Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Custody se	als? (Y/N)			_	-		
Received o	on ice? (Y/N)	<u> </u>				**************	
Temp. blan	ıks? (Y/N)	<u> </u>					-
Ice type: (C	Gel/Real/Other)	Peul_					
Condition (	(In/Out):	In_					
Out of tem	applied to out o	Possible reason wift temperature samples form initiated?	ples? Yes/No Yes/No	555 E	3v: 51	•	
Out of tem Sample Ins All sample	applied to out o perature samples pection: Date/s intact? Yes	f temperature sames form initiated? stime inspected: Some No Comm	ples? Yes/No Yes/No ?-3/-2:3 @ 5 nents:				
Out of tem Sample Ins All sample	applied to out o perature samples pection: Date/es intact? Yes _/	f temperature samps form initiated? Stime inspected:	ples? Yes/No Yes/No ?-3/-2:3 @ 5 nents:				
Out of tem Sample Ins All sample Bottle labe 13-5-15	applied to out o perature samples pection: Date/s intact? Yes	f temperature sames form initiated? stime inspected: Some No Comm	ples? Yes/No Yes/No 2-31-2-3 @ 5 nents:	ontany Time			
Out of tem Sample Ins All sample Bottle labe B-5-15 COC/conta	applied to out o perature samples pection: Date/s intact? Yes _/	f temperature samples form initiated? Stime inspected: Some Comm	ples? Yes/No Yes/No 2-31-2-3 @ 5 nents:  Comments:	ontains Time	e reads	1050 For	
Out of tem Sample Ins All sample Bottle labe B-5-15 COC/conta Containers	applied to out o perature samples spection: Date/es intact? Yes _/es/COCs agree?	f temperature sams s form initiated?  Yes No Comm  Yes No X  Yes No X  The property of the pro	ples? Yes/No Yes/No Yes/No Zes/No Zes	notany Tm	e reads	1050 For	
Out of tem Sample Ins All sample Bottle labe B-5-15 COC/conta Containers Do VOA v	applied to out o perature samples spection: Date/ss intact? Yes	f temperature sames form initiated?  X No Comm  Yes X No es form initiated?  ed appropriate for	Ples? Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes   No   Yes   No   Yes	20tanu TM × No (	e reads	1050 For	
Out of tem Sample Ins All sample Bottle labe B-5-15 COC/conta Containers Do VOA v Comments	applied to out o perature samples spection: Date/s intact? Yes _/ els/COCs agree? Ainer discrepanci volumes received that have visible	f temperature sames form initiated? Stime inspected: Some No Commercial Yes No No Some	Ples? Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes   No   Yes   No   Yes   No   Yes   No   Yes   No   Yes	NO (	c reads	1050 For	
Out of tem Sample Ins All sample Bottle labe B-5-15 COC/conta Containers Do VOA v Comments	applied to out operature samples spection: Date/es intact? Yes	f temperature samples form initiated?  Yes No Comm  Yes No X  Yes Yes Yes  The adspace?  Yes  A 1/3 HS 1/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3	Ples? Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes   No   Yes   No   Yes   No   Yes   No   Yes   No   Yes	NO (	c reads	1050 For	
Out of tem Sample Ins All sample Bottle labe B-5-15 COC/conta Containers Do VOA v Comments Water sam Comments	applied to out operature samples spection: Date/ss intact? Yes	f temperature sames form initiated? Stime inspected: Sex No Comm  Yes No Comm  Yes No Comm  Yes No Comm  Yes No No Comm  A set of the initiated? Yes Sex No No Comm  The initiated? Yes No No No No No No No No_	ples? Yes/No Yes/No Yes/No Yes/No Penents:  Comments:	NA	Comments:	1050 For	
Out of tem Sample Ins All sample Bottle labe B-5-15 COC/conta Containers Do VOA v Comments Water sam Comments	applied to out operature samples spection: Date/ss intact? Yes	f temperature samples form initiated?  Yes No Comm  Yes No X  Yes Yes Yes  The adspace?  Yes  A 1/3 HS 1/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3	ples? Yes/No Yes/No Yes/No Yes/No Penents:  Comments:	NA	Comments:	1050 For	
Out of tem Sample Ins All sample Bottle labe B-5-15 COC/conta Containers Do VOA v Comments Water sam Comments	applied to out operature samples spection: Date/s intact? Yes	f temperature sames form initiated? Stime inspected: Sex No Comm  Yes No Comm  Yes No Comm  Yes No Comm  Yes No No Comm  A set of the initiated? Yes Sex No No Comm  The initiated? Yes No No No No No No No No_	Ples? Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes/No   Yes   Yes   No   Yes   No   Yes	NO( NA  priate? Yes_\(\text{Yes}\)	Comments:	1050 For	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Maenberg