EnviroSound Consulting Inc.

Geotechnical & Environmental Consulting

Annual 2019 Groundwater Monitoring Report

Project Information

Project Name: Twelve Trees Business Park
Location: Poulsbo, Washington
Client: Apanage Inc.
Project #: ESC19-E006
Date: April 5, 2019

Company Information

P.O. Box 776
Tracyton, Washington 98393
Phone: 360-698-5950
Fax: 360-698-5929

April 5, 2019 Project No. ESC19-E006

Mr. Mark Salo
Apanage Inc.
26276 Twelve Trees Lane NW, Suite B
Poulsbo, Washington 98370

RE: **Annual 2019 Groundwater Monitoring Report**
Twelve Trees Business Park
26276 Twelve Trees Lane NW, Suite B
Poulsbo, Washington 98370

Dear Mr. Salo:

This report summarizes the Annual 2019 groundwater monitoring activities for the Twelve Trees Business Park (site) in Poulsbo, Washington (see Figure 1, Vicinity Map). The work was conducted in general accordance with our proposal No. ESC18-PE008, dated April 1, 2018.

Project Background

The site was previously used as a gravel pit and asphalt manufacturing plant from 1956 through 1981. Groundwater quality monitoring was conducted in 1991 through 1993, and reported by Shannon & Wilson (1994). Levels of trichloroethylene (TCE) were detected in Well 2, ranging from 17 to 32 parts per billion (ppb), which exceeds the Washington Model Toxics Control Act (MTCA) Method A groundwater cleanup standard of 5.0 ppb. Previous sampling results indicate that the TCE occurrence in groundwater was localized in the Well 2 vicinity and that the remainder of the wells contained non-detectable levels, less than 0.1 ppb, of TCE.

A Washington Department of Ecology (Ecology) letter, dated October 21, 1998, to Mr. Mark Salo of Apanage, Inc., site owner, requested that groundwater monitoring be conducted to assure this site does not pose a threat to human health or the environment. Ecology specified that on-site wells Nos. 2 and 4 be monitored on a quarterly basis for one year. Thereafter, according to the letter from Ecology, annual monitoring of well No. 2 is to be continued until the cleanup standards are attained and a final "no further action" determination for groundwater can be issued. According to the letter from Ecology, monitoring of well No. 4 could be discontinued if no TCE was detected after one year of quarterly sampling.

The year of quarterly monitoring was completed in February 2000, by Krazan and Associates and summarized in a report dated March 27, 2000. Per Ecology's letter, an annual monitoring program was then adopted. In addition, monitoring of well No. 4 was discontinued. Krazan and Associates continued annual monitoring through 2004. Alkai Consultants performed annual monitoring from 2004 through 2007. EnviroSound started annual sampling during 2008.

Sampling Activities

Well No. 2 was sampled on March 19, 2019. Prior to sampling, the static water level was measured at a depth of 63.0 feet with the bottom of the well measured at 67.50 feet. Samples of the groundwater were then collected utilizing a disposable bailer and dispensed into two 40-milliliter volatile organic analysis (VOA) vials. Both samples were labeled and stored on ice until delivery to the laboratory. The water samples were submitted to Spectra Laboratories (formerly Twiss Laboratories) in Poulsbo, Washington for analysis of TCE and breakdown products (Halogenated Volatile Organics) by EPA method 8260C.

Environmental Monitoring Results

The Well No. 2 water sample contained a level of TCE of <1.0 parts per billion (ppb), which is below the MTCA Method A Cleanup Level (5 ppb). The sample also contained 9.3 ppb of cis-1, 2-dichloroethene, a likely breakdown product of the TCE which has been encountered periodically in the past. The detected level of cis-1, 2-dichloroethene is below the Maximum Contaminant Level of 70.0 ppb. The certified Analytical Results and Chain-of-Custody Records are attached to this letter. The cumulative TCE results are listed in Table 1.

Conclusions

The monitoring of well No. 2 has indicated that the groundwater concentration for TCE at the time of the Annual 2019 sampling event is below the cleanup standard (5 ppb), and has now been for three consecutive years. According to the 1998 Ecology letter, annual monitoring should continue until the cleanup standard has been attained. Once the cleanup level has been attained, four quarters of monitoring with results below the cleanup standard will be required for the No Further Action determination.

We therefore recommend that quarterly monitoring be conducted, with the March sample representing the first quarter. Subsequent samples should be collected in June, September, and December, 2019. If the quarterly results remain below the cleanup level, a No Further Action determination should be requested.

TABLE 1: SUMMARY OF GROUNDWATER ANALYSES		
Sample No.	**Date Sampled**	**Trichloroethylene (ppb)**
First Quarter-1999		
99113-MW-2-GW-1	5/25/99	**6.0**
99113-MW-4-GW-2	5/25/99	<1.0
Second Quarter-1999		
99113-MW-2-GW-3	9/1/99	**15.0**
99113-MW-4-GW-4	9/1/99	<1.0
Third Quarter-1999		
99113-MW-2-GW-5	11/21/99	**9.0**
99113-MW-4-GW-6	11/21/99	<1.0
Fourth Quarter-2000		
99113-MW-2-GW-7	2/25/00	**15.0**
99113-MW-4-GW-8	2/25/00	<1.0
Annual-2001		
01011-MW-2-GW-6*	3/28/01	1.0
Annual-2002		
02005-MW-2-GW-10	4/8/02	**13.0**
Annual-2003		
03012-MW-2-GW-11	3/18/03	**14.0**
Annual-2004		
04002-MW-2 GW-12	3/10/04	**5.0**
Annual-2005		
ACL05-03-E015-MW-2-GW-13	3/31/05	<2.0
Annual-2006		
ACL06-04-E012-MW2-GW-14	4/27/06	**13.0**
Annual 2007		
ACL07-04-E049-MW2-GW-15	4/30/07	**15.0**
Annual 2008		
ESC08-E005-MW2-GW-16	4/21/08	**8.0**
Annual 2009		
ESC09-E005-MW2-GW-17	3/30/09	4.0
Annual 2010		
ESC10-E006-MW2-GW-18	4/15/10	**14.0**
Annual 2011		
ESC011-E003-MW2-GW-19	5/13/11	<2.0
Annual 2012		
ESC012-E002-MW2-GW-20	4/25/12	**14.0**
Annual 2013		
ESC013-E002-MW2-GW-21	5/2/13	**22.0**
Annual 2014		
ESC014-E002-MW2-GW-22	4/16/14	**13.9**
Annual 2015		

ESC015-E002-MW2-GW-23	4/17/15	**12.3**
Annual 2016		
ESC016-E002-MW2-GW-24	4/12/16	**12.2**
Annual 2017		
ESC017-E017-MW2-GW-25	5/1/17	2.2
Annual 2018		
ESC18-E008-MW2-GW-26	5/1/18	1.5
Annual 2019		
ESC19-E006-MW2-GW-27	3/19/19	<1.0
MTCA Method A Cleanup Level		**5.0**

- QA Duplicate Sample Analyzed

Limitations

The findings of this report were based upon the results of our field and laboratory investigations, coupled with the interpretation of conditions associated with the groundwater samples. Therefore, the statements are accurate only to the degree implied by review of the data obtained and by professional interpretation.

A laboratory, certified by the State of Washington Department of Ecology, performed the chemical testing. The results of the chemical analysis are accurate only to the degree of care of ensuring the testing accuracy and the representative nature of the soil samples obtained.

The findings presented herewith are based on professional interpretation using state-of-the-art methods and equipment, and a degree of conservatism deemed proper as of this report date. It is not warranted that such findings cannot be superseded by future environmental, geotechnical, or technical developments.

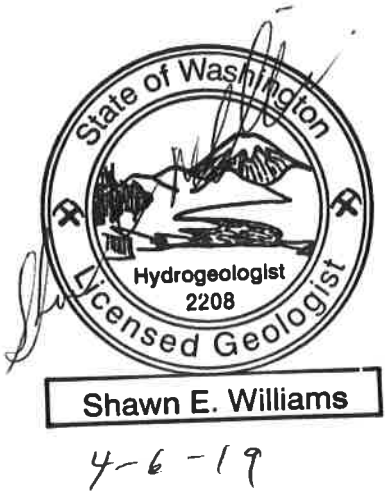
Closing

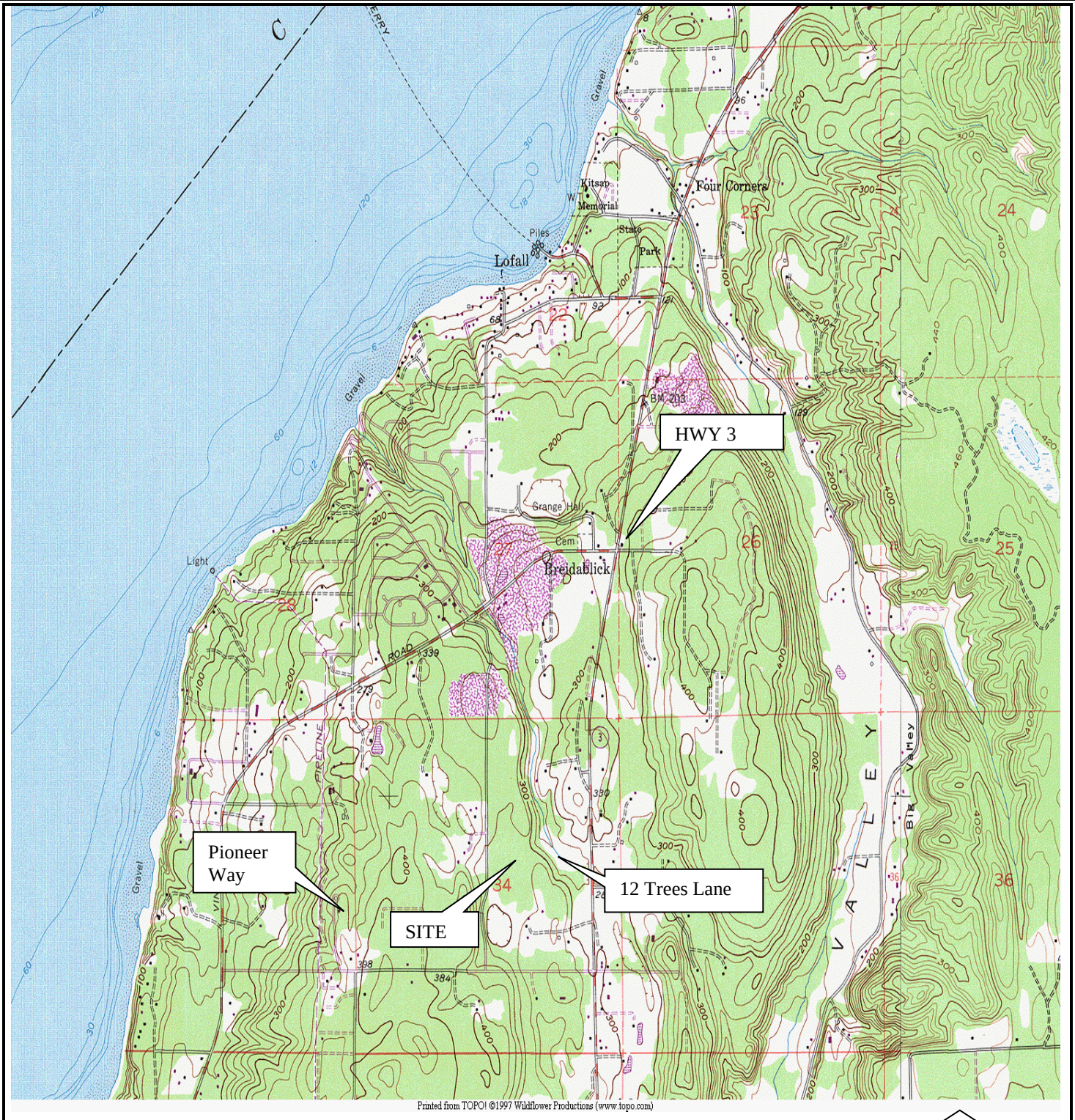
We appreciate the opportunity to be of service. If you have any questions, please do not hesitate to contact our office at (360) 698-5950.

Respectfully submitted,
EnviroSound Consulting, Inc.

Shawn E. Williams,
Senior Hydrogeologist

Attachments: Vicinity Map, Analytical Results





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Note: Map adapted from TOPO! © 1997 Wildflower Productions.

ENVIROSOUND CONSULTING, INC.
P. O. Box 776
Tracyton, WA 98393
360-698-5950

FIGURE 1 – SITE VICINITY MAP
Job name: Twelve Trees Business Park
Location: Poulsbo, Washington
Job No. : ESC19-E006
Client: Apanage, Inc.
Date: April/19

SPECTRA Laboratories ...Where experience matters

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

03/21/2019

Spectra Laboratories-Kitsap, LLC
26276 Twelve Trees Lane
Suite C
Poulsbo, WA 98370
Attn: Angela Kaelin

P.O.#: 185813
Project: 12 Trees Annual Sampling
Client ID: ESC 19-TW2-GW-27
Sample Matrix: Water
Date Sampled: 03/19/2019
Date Received: 03/19/2019
Spectra Project: 2019030512
Spectra Number: 1

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,1,1,2-Tetrachloroethane	<1	µg/L	SW846 8260C	2-Butanone (MEK)	<10	µg/L	SW846 8260C
1,1,1-Trichloroethane	<1	µg/L	SW846 8260C	2-Chloroethylvinyl Ether	<10	µg/L	SW846 8260C
1,1,2,2-Tetrachloroethane	<1	µg/L	SW846 8260C	2-Chlorotoluene	<1	µg/L	SW846 8260C
1,1,2-Trichloroethane	<1	µg/L	SW846 8260C	2-Hexanone (MBK)	<10	µg/L	SW846 8260C
1,1-Dichloroethane	<1	µg/L	SW846 8260C	4-Chlorotoluene	<1	µg/L	SW846 8260C
1,1-Dichloroethene	<1	µg/L	SW846 8260C	4-Isopropyltoluene	<1	µg/L	SW846 8260C
1,1-Dichloropropene	<1	µg/L	SW846 8260C	4-methyl-2-pentanone	<10	µg/L	SW846 8260C
1,2,3-Trichlorobenzene	<1	µg/L	SW846 8260C	Acetone	<10	µg/L	SW846 8260C
1,2,3-Trichloropropane	<1	µg/L	SW846 8260C	Acetonitrile	<10	µg/L	SW846 8260C
1,2,4-Trichlorobenzene	<1	µg/L	SW846 8260C	Acrolein	<10	µg/L	SW846 8260C
1,2,4-Trimethylbenzene	<1	µg/L	SW846 8260C	Acrylonitrile	<10	µg/L	SW846 8260C
1,2-Dibromo3Chloropropane	<10	µg/L	SW846 8260C	Benzene	<1	µg/L	SW846 8260C
1,2-Dibromoethane (EDB)	<1	µg/L	SW846 8260C	Bromobenzene	<1	µg/L	SW846 8260C
1,2-Dichlorobenzene	<1	µg/L	SW846 8260C	Bromochloromethane	<1	µg/L	SW846 8260C
1,2-Dichloroethane	<1	µg/L	SW846 8260C	Bromodichloromethane	<1	µg/L	SW846 8260C
1,2-Dichloropropane	<1	µg/L	SW846 8260C	Bromoform	<1	µg/L	SW846 8260C
1,3,5-Trimethylbenzene	<1	µg/L	SW846 8260C	Bromomethane	<1	µg/L	SW846 8260C
1,3-Dichlorobenzene	<1	µg/L	SW846 8260C	Carbon Disulfide	<10	µg/L	SW846 8260C
1,3-Dichloropropane	<1	µg/L	SW846 8260C	Carbon Tetrachloride	<1	µg/L	SW846 8260C
1,4-Dichlorobenzene	<1	µg/L	SW846 8260C	Chlorobenzene	<1	µg/L	SW846 8260C
2,2-Dichloropropane	<1	µg/L	SW846 8260C	Chlorodibromomethane	<1	µg/L	SW846 8260C

Surrogate	Recovery	Method
Dibromofluoromethane	105	SW846 8260C
1,2-Dichloroethane-d4	108	SW846 8260C
Toluene-d8	98	SW846 8260C
4-Bromofluorobenzene	94	SW846 8260C

SPECTRA LABORATORIES

Jeffrey Cooper, Laboratory Manager

d14/jac

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03/21/2019

Spectra Laboratories-Kitsap, LLC
26276 Twelve Trees Lane
Suite C
Poulsbo, WA 98370
Attn: Angela Kaelin

P.O.#: 185813
Project: 12 Trees Annual Sampling
Client ID: ESC 19-TW2-GW-27
Sample Matrix: Water
Date Sampled: 03/19/2019
Date Received: 03/19/2019
Spectra Project: 2019030512
Spectra Number: 1

Analyte	Result	Units	Method
Chloroethane	<1	µg/L	SW846 8260C
Chloroform	<1	µg/L	SW846 8260C
Chloromethane	<1	µg/L	SW846 8260C
Dibromomethane	<1	µg/L	SW846 8260C
Dichlorodifluoromethane	<1	µg/L	SW846 8260C
Ethylbenzene	<1	µg/L	SW846 8260C
Hexachlorobutadiene	<1	µg/L	SW846 8260C
Iodomethane	<10	µg/L	SW846 8260C
Isopropylbenzene	<1	µg/L	SW846 8260C
Methyl-tert-Butyl Ether	<1	µg/L	SW846 8260C
Methylene chloride	<5	µg/L	SW846 8260C
Naphthalene	<1	µg/L	SW846 8260C
Styrene	<1	µg/L	SW846 8260C
Tetrachloroethene	<1	µg/L	SW846 8260C
Toluene	<1	µg/L	SW846 8260C
Total Xylenes	<2	µg/L	SW846 8260C
Trichloroethene	<1	µg/L	SW846 8260C
Trichlorofluoromethane	<1	µg/L	SW846 8260C
Vinyl Acetate	<10	µg/L	SW846 8260C
Vinyl chloride	<1	µg/L	SW846 8260C
cis-1,2-Dichloroethene	9.3	µg/L	SW846 8260C
cis-1,3-Dichloropropene	<1	µg/L	SW846 8260C
n-Butylbenzene	<1	µg/L	SW846 8260C
n-Propylbenzene	<1	µg/L	SW846 8260C
sec-Butylbenzene	<1	µg/L	SW846 8260C
tert-Butylbenzene	<1	µg/L	SW846 8260C
trans-1,2-Dichloroethene	<1	µg/L	SW846 8260C
trans-1,3-Dichloropropene	<1	µg/L	SW846 8260C

Surrogate	Recovery	Method
Dibromofluoromethane	105	SW846 8260C
1,2-Dichloroethane-d4	108	SW846 8260C
Toluene-d8	98	SW846 8260C
4-Bromofluorobenzene	94	SW846 8260C

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Jeffrey Cooper, Laboratory Manager

a1-4-jac

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March 25, 2019

		Date Analyzed:	3/20/2019
Spectra Laboratories Kitsap	Sample matrix: Water	Dilution:	1
26276 Twelve Trees Lane		< = less than	
Suite C	Spectra Project:	2019030512	
Poulsbo, WA 98370	Spectra #	Method Blank	
	Applies to Samples	#1	

VOLATILE ORGANIC ANALYSIS — **METHOD 624/8260**

Compound	ug/L	Compound	ug/L
Acetone	< 10	1,2-Dichloropropane	< 1
Acrolein	< 10	1,3-Dichloropropane	< 1
Acrylonitrile	< 10	cis-1,3-Dichloropropene	< 1
Benzene	< 1	trans-1,3-Dichloropropene	< 1
Bromobenzene	< 1	2,2-Dichloropropane	< 1
Bromochloromethane	< 1	1,1-Dichloropropene	< 1
Bromodichloromethane	< 1	Ethylbenzene	< 1
Bromoform	< 1	2-Hexanone (MBK)	< 10
Bromomethane	< 1	Hexachlorobutadiene	< 1
2-Butanone (MEK)	< 10	Iodomethane	< 10
n-Butylbenzene	< 1	Isopropylbenzene	< 1
sec-Butylbenzene	< 1	p-Isopropyltoluene	< 1
tert-Butylbenzene	< 1	Methylene chloride	< 5
Carbon Disulfide	< 10	4-Methyl-2-pentanone (MIBK)	< 10
Carbon tetrachloride	< 1	MTBE	< 1
Chlorobenzene	< 1	Naphthalene	< 1
Chlorodibromomethane	< 1	n-Propylbenzene	< 1
Chloroethane	< 1	Styrene	< 1
2-Chloroethyl Vinyl ether	< 10	1,1,1,2-Tetrachloroethane	< 1
Chloroform	< 1	1,1,2,2-Tetrachloroethane	< 1
Chloromethane	< 1	Tetrachloroethene	< 1
2-Chlorotoluene	< 1	Toluene	< 1
4-Chlorotoluene	< 1	Total Xylenes	< 2
1,2-Dibromo-3-Chloropropane (DBCP)	< 10	1,2,3-Trichlorobenzene	< 2
1,2-Dibromoethane (EDB)	< 1	1,2,4-Trichlorobenzene	< 2
Dibromomethane	< 1	1,1,1-Trichloroethane	< 1
1,2-Dichlorobenzene	< 1	1,1,2-Trichloroethane	< 1
1,3-Dichlorobenzene	< 1	Trichloroethene	< 1
1,4-Dichlorobenzene	< 1	Trichlorofluoromethane	< 1
Dichlorodifluoromethane	< 1	1,2,3-Trichloropropane	< 1
1,1-Dichloroethane	< 1	1,2,4-Trimethylbenzene	< 1
1,2-Dichloroethane	< 1	1,3,5-Trimethylbenzene	< 1
1,1-Dichloroethene	< 1	Vinyl Acetate	< 10
cis-1,2-Dichloroethene	< 1	Vinyl chloride	< 1
trans-1,2,-Dichloroethene	< 1		

SURROGATE RECOVERIES

Dibromofluoromethane	99	%
1,2-Dichloroethane-d4	96	%
Toluene-d8	96	%
4-Bromofluorobenzene	102	%

Jeff [illegible]
Laboratory Manager

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March 25, 2019

Spectra Laboratories Kitsap
26276 Twelve Trees Lane
Suite C
Poulsbo, WA 98370

Sample Matrix: Water
EPA Method: 624/ 8260C
Spectra Project: 2019030512
Date Analyzed: 3/20/2019
Units: ug/L
Applies to Spectra #'s: #1

GCMS VOLATILE ORGANIC ANALYSIS
Laboratory Control Sample (LCS) Results

COMPOUND	SAMPLE RESULT	SPIKE AMOUNT	SPIKE RESULT	LCS %REC
1,1-Dichloroethene	<1	10.00	9.83	98.3
Benzene	<1	10.00	10.1	101
Trichloroethene	<1	10.00	10.3	103
Toluene	<1	10.00	10.1	101
Chlorobenzene	<1	10.00	10.4	104

Surrogate Recoveries (%)	LCS
Dibromofluoromethane	101
1,2-Dichloroethane-d4	99
Toluene-d8	99
4-Bromofluorobenzene	98

[redacted] Cooper
Laboratory Manager

SPECTRA Laboratories – Kitsap, LLC

26276 Twelve Trees Lane, Suite C Poulsbo, WA 98370
(360) 779-5141 FAX (360) 779-5150 www.twisslabs.com

Client Information

Company/Client: Enviro Sound Cc

Address: P. O. Box 776

City: Tracyton State: WA Zip 98393

Project Information

Project Manager/Report To: Shawn Williams

Project Name: 12 Trees Annual Sampling '19 Sampled by: Shawn Williams

Telephone No: 360-698-5950 Fax No. 360-698-5929

Email address: shawn@envirosound.net

Test Parameters Required

Sample ID	Date	Time	Matrix	Hazard	Lab ID	Number of Containers	Metals: As Ba Cd Cr Cu Pb Mn Hg Se Ag	Lysimeter	Cond, N03, pH, DO	HEM Oil & Grease EPA 1664 B	Semi Volatile	VOC EPA 624	Fecal Coliform: MF
1 ESC 19 PW2-GW-27	3-19-19	0940	water	NC	185813-01	2						✓	
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

Circle the desired parameters above if multiple tests are listed on the same line

☐ Routine Disposal ☐ Return to Client ☐ Hazardous sample disposal (Cost of disposal will be billed to client)

Special Instructions Bill Agency

Sample Receipt:

Total # of containers 2

COC seals present? N intact?

Temp at receipt? 15.1 °C

Samples intact? Y

Received Via: client

Turn-around Time Requirement

☒ Standard (10 Business days)

☐ Rush (specify date needed)‡

☐ Other (specify)

‡ *additional charges may apply*

Signatures (Name, Company, Date, Time)

Relinquished by: Shawn Williams (print) (Signature) Company ESC Date 3-19-19 Time 1000

Received by: Sarah Erskine (print) (Signature) Company Spectra Date 3/19/19 Time 10 00

Relinquished by: (print) (Signature) Company Date Time

Received by: (print) (Signature) Company Date Time

Samples received after 12 noon will be considered as received the following business day