February 22, 2022 Project No. 104-21020

Mr. Blaise Hilton, Principal
Russell Square Consulting
41428 Mackenzie Ct.
Murrieta, CA 92562

RE: Groundwater Quarterly Monitoring – Third Quarter Summary Letter
Lots 25 & 26 of the JSP Silverdale site
NW Brian Lane
Silverdale, Washington

Dear Mr. Hilton:

This report summarizes the three quarters of groundwater monitoring activities conducted to date for the referenced site in Silverdale, Washington (see Figure 1, Vicinity Map). Data collected from these samples helps determine if contaminants of potential concern (COPC) originating from solid waste disposal or other sources of contamination have migrated from local soil to groundwater at five locations of concern on the subject site (Figure 2, Site Map). This work is being conducted in response to a request for further groundwater characterization outlined in a letter sent from the Department of Ecology (DOE) to Mr. Andrew Seitz on March 9, 2021, and to determine if any remedial action is required to meet substantive requirements of the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW. Monitoring results for the first and second quarters, collected on July 21, 2021, and October 6, 2021, respectively, were previously summarized in a Remedial Investigation Report, dated October 19, 2021. The work was conducted in general accordance with Proposal No. E21042WAP, dated June 23, 2021, which was approved by Mr. Blaise Hilton on July 22, 2021.

Sampling Activities

For third quarter monitoring, groundwater samples were collected from the wells on January 24, 2022, and submitted for chemical analysis. Sampling was conducted according to the Sampling and Analysis Plan, dated June 10, 2021. The water sampling logs are attached in Appendix A. Prior to sampling, the static water level was measured in each well. Low-flow groundwater samples were collected using a peristaltic pump and dispensed into laboratory-supplied glass sample bottles with disposable, single-use tubing. Each sample bottle was labeled with the project name, number, and the sequential sample number. Following labeling, the samples were placed in an ice chest with synthetic ice and maintained at a temperature of approximately 4° Celsius.

All samples were transported to Friedman & Bruya Environmental Chemist Laboratories in Seattle, Washington, for analysis. The groundwater samples were analyzed for Total Petroleum Hydrocarbons in the Diesel-extended range by Method NWTPH-Dx; Total Petroleum Hydrocarbons in the Gas-extended range by Method NWTPH-Gx and additional associated volatile organic compounds (VOCs) by Method

BTEX 8021B; Polycyclic Aromatic Hydrocarbons (PAHs) by Method 8270; Polychlorinated Biphenyls (PCBs) by Method 8082; and total metals (lead and arsenic) by Method 6020. After initial analysis, all samples were passed through a silica gel column, which filters out naturally occurring hydrocarbon that may quantitatively contribute to reported NWTPH-Dx results. All samples were subsequently analyzed for Total Petroleum Hydrocarbons in the Diesel-extended range by Method NWTPH-Dx.

Sampling and analysis activities conducted for quarter one (July 21, 2021) followed the same procedures described above. Sampling and analysis activities conducted for quarter two (October 6, 2021) followed procedures described above, with the exception of additional silica gel filtration and subsequent NWTPH-Dx analysis.

Groundwater Monitoring Results

The quarterly laboratory analytical results for the groundwater samples from the past three quarters are listed in Tables 1-3. The laboratory reports are provided in Appendix B. None of the third quarter groundwater samples contained detectable levels of PAHs, PCBs, metals (As and Pb), BTEX VOCs, or Total Petroleum Hydrocarbons in the diesel-extended and gas-extended ranges.

Table 1. Summary of Groundwater Total Petroleum Hydrocarbons in the Gasoline Range and BTEX Results

JSP Silverdale Lots 25 and 26

Well No.	Sample No.	Date Sampled	NWTPH-Gx and BTEX 8021B				
			Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	Gasoline (µg/l)
MW-1	2021-GW-101	7/21/21	<1	<1	<1	<3	<100
	2021-GW-201	10/6/2021	<1	<1	<1	<3	<100
	2021-GW-301	1/24/22	<1	<1	<1	<3	<100
	2021-GW-302	1/24/22	<1	<1	<1	<3	<100
MW-2	2021-GW-102	7/21/21	<1	<1	<1	<3	<100
	2021-GW-202	10/6/2021	<1	<1	<1	<3	<100
	2021-GW-303	1/24/22	<1	<1	<1	<3	<100
MW-3	2021-GW-103	7/21/21	<1	<1	<1	<3	<100
	2021-GW-203	10/6/2021	<1	<1	<1	<3	<100
	2021-GW-204	10/6/2021	<1	<1	<1	<3	<100
	2021-GW-304	1/24/22	<1	<1	<1	<3	<100
MW-4	2021-GW-104	7/21/21	<1	<1	<1	<3	<100
	2021-GW-205	10/6/2021	<1	<1	<1	<3	<100
	2021-GW-305	1/24/22	<1	<1	<1	<3	<100
MW-5	2021-GW-105	7/21/21	<1	<1	<1	3.3	370
	2021-GW-106	7/21/21	<1	<1	<1	3.1	380
	2021-GW-206	10/6/2021	<1	<1	<1	<3	<100
	2021-GW-306	1/24/22	<1	<1	<1	<3	<100
MTCA Method A Cleanup Levels			**5**	**1,000**	**700**	**1,000**	**800/1,000**

Notes:
Concentrations listed in micrograms per liter (µg/l), or parts per billion (ppb).
MTCA = the Model Toxics Control Act regulation and the regulations promulgated thereunder (Washington Administrative Code, Chapter 173-340).

Table 2. Summary of Groundwater Total Petroleum Hydrocarbon in the Diesel Extended Range Results
JSP Silverdale Lots 25 and 26

Well No.	Sample No.	Date Sampled	NWTPH-Dx		NWTPH-Dx Analysis after sample has passed through silica gel column.	
			Diesel (µg/l)	Lube Oil (µg/l)	Diesel (µg/l)	Lube Oil (µg/l)
MW-1	2021-GW-101	7/21/21	180	<250	<50	<250
	2021-GW-201	10/6/2021	<60	<300	NA	NA
	2021-GW-301	1/24/22	<50	<250	<50	<250
	2021-GW-302	1/24/22	<50	<250	<50	<250
MW-2	2021-GW-102	7/21/21	<50	<250	<50	<250
	2021-GW-202	10/6/2021	73	<250	NA	NA
	2021-GW-303	1/24/22	<50	<250	<50	<250
MW-3	2021-GW-103	7/21/21	210	<250	<50	<250
	2021-GW-203	10/6/2021	<60	<250	NA	NA
	2021-GW-204	10/6/2021	<50	<250	NA	NA
	2021-GW-304	1/24/22	<50	<250	<50	<250
MW-4	2021-GW-104	7/21/21	130	<250	<60	<300
	2021-GW-205	10/6/2021	<50	<250	NA	NA
	2021-GW-305	1/24/22	<50	<250	<50	<250
MW-5	2021-GW-105	7/21/21	420	<250	86	<250
	2021-GW-106	7/21/21	340	<250	84	<250
	2021-GW-206	10/6/2021	<50	<250	NA	NA
	2021-GW-306	1/24/22	<50	<250	<50	<250
MTCA Method A Cleanup Levels			**500**	**500**	**500**	**500**

Notes:
Concentrations listed in micrograms per liter (µg/l), or parts per billion (ppb).
MTCA = the Model Toxics Control Act regulation and the regulations promulgated thereunder (Washington Administrative Code, Chapter 173-340).
NA = Not Analyzed

Table 3. Summary of Groundwater PAH, PCB, Lead, and Arsenic Results
JSP Silverdale Lots 25 and 26

Well No.	Sample No.	Date Sampled	PAHs (µg/l)	PCBs (µg/l)	Lead (µg/l)	Arsenic (µg/l)
MW-1	2021-GW-101	7/21/21	ND	<0.1	<1	<1
	2021-GW-201	10/6/2021	ND	<0.1	<1	<1
	2021-GW-301	1/24/22	ND	<0.1	<1	<1
	2021-GW-302	1/24/22	ND	<0.1	<1	<1
MW-2	2021-GW-102	7/21/21	ND	<0.1	<1	<1
	2021-GW-202	10/6/2021	ND	<0.1	<1	<1
	2021-GW-303	1/24/22	ND	<0.1	<1	<1
MW-3	2021-GW-103	7/21/21	ND	<0.1	<1	<1
	2021-GW-203	10/6/2021	ND	<0.1	<1	<1
	2021-GW-204	10/6/2021	ND	<0.1	<1	<1
	2021-GW-304	1/24/22	ND	<0.1	<1	<1
MW-4	2021-GW-104	7/21/21	ND	<0.1	<1	<1
	2021-GW-205	10/6/2021	ND	<0.1	<1	<1
	2021-GW-305	1/24/22	ND	<0.1	<1	<1
MW-5	2021-GW-105	7/21/21	ND	<0.1	<1	<1
	2021-GW-106	7/21/21	ND	<0.1	<1	<1
	2021-GW-206	10/6/2021	ND	<0.1	<1	<1
	2021-GW-306	1/24/22	ND	<0.1	<1	<1
MTCA Method A Cleanup Levels			**0.1**	**0.1**	**15**	**5**

Notes:
Concentrations listed in micrograms per liter (µg/l), or parts per billion (ppb).
MTCA = the Model Toxics Control Act regulation and the regulations promulgated thereunder (Washington Administrative Code, Chapter 173-340).
ND = Not Detected

Limitations

The findings of this report were based upon the results of field and laboratory investigations, coupled with the interpretation of surface and subsurface conditions associated with our water samples. Therefore, the data 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, did the analytical testing. The results of the chemical testing are accurate only to the degree of care of ensuring the testing accuracy and the representative nature of the water 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 data cannot be superseded by future geotechnical, environmental, or technical developments.

We appreciate the opportunity to be of service. If you have any questions, or if we can be of further assistance, please do not hesitate to contact our office.

Respectfully Submitted,
Krazan & Associates, Inc.

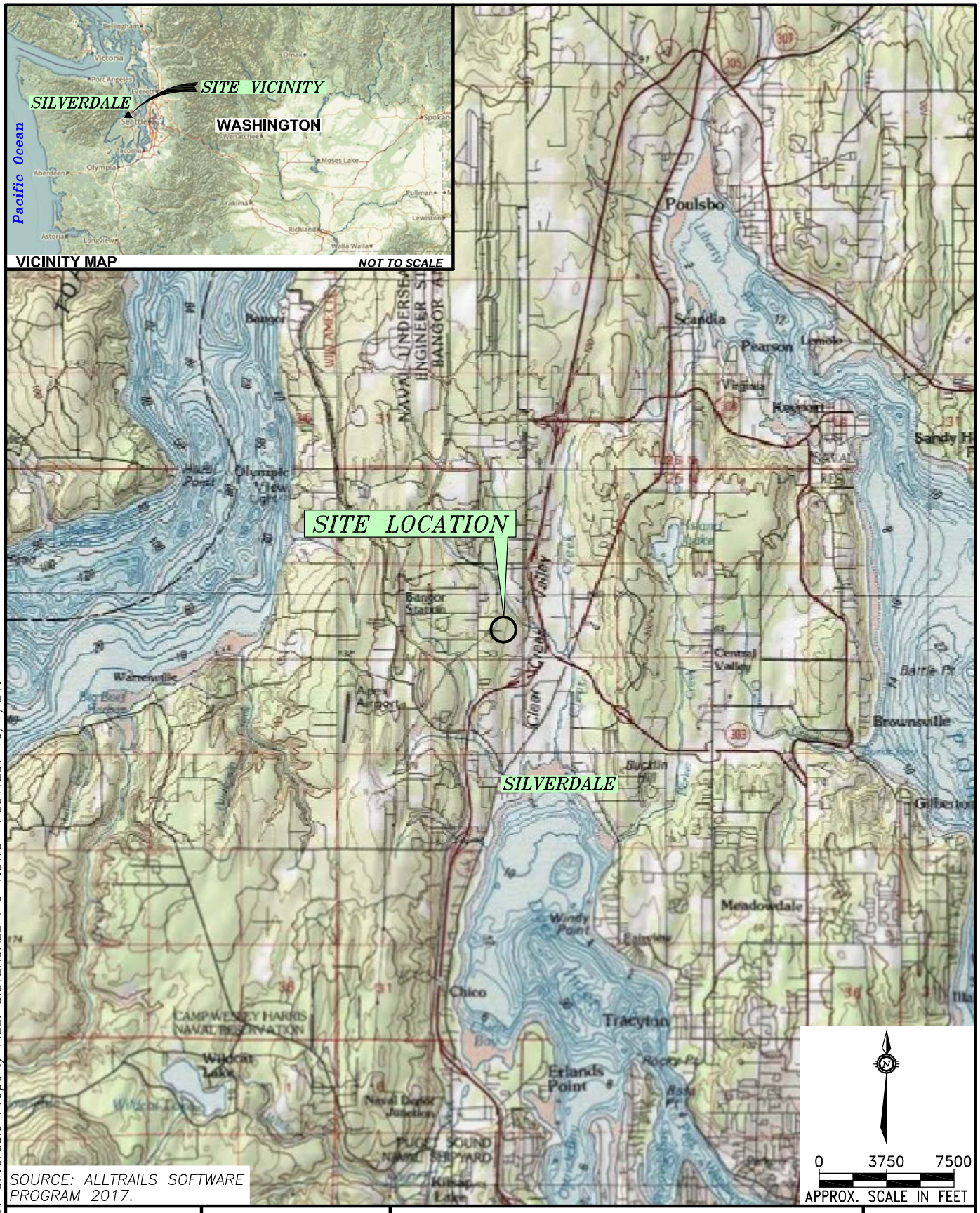
Shawn E. Williams, L.G.
Regional Environmental Manager

State of Washington
2208
Licensed Geologist
Shawn E. Williams

2/22/22

Attachments:

Figure 1. Vicinity Map
Figure 2. Site Map
Appendix A. Water Sampling Logs
Appendix B. Certified Analytical Results and Chain-of-Custody Record



SOURCE: ALLTRAILS SOFTWARE PROGRAM 2017.

21 Dwgs\21 ESC\21 Silverdale Property FILE: SILVERDALE FIG 1.DWG PLOTTED: 10/1/21.

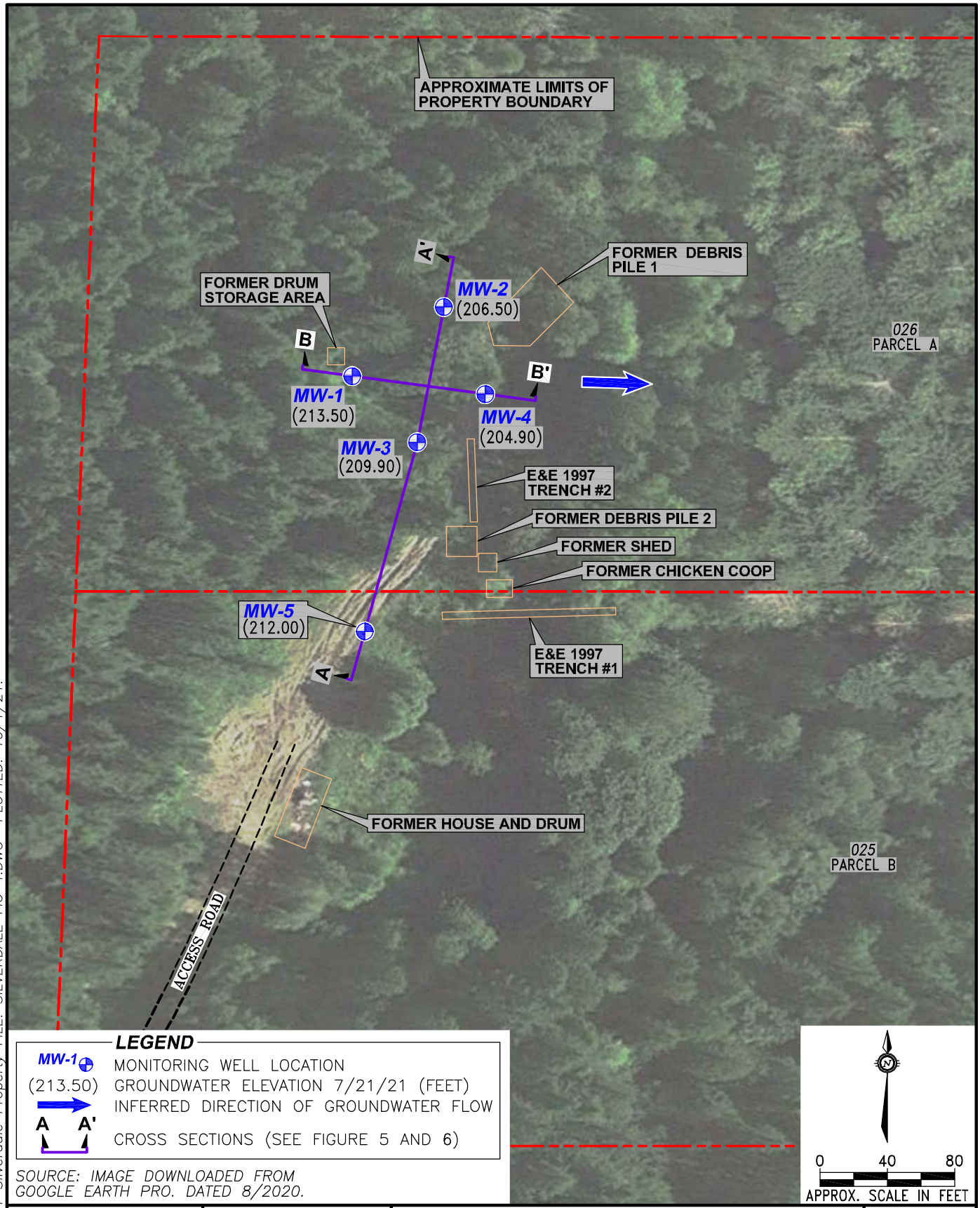
DATE: OCTOBER 2021
REV.: –
CHKD: K.L.W
DRAWN: C.E.H.
PROJ. No.: XXX

Krazan

SITE LOCATION MAP

JSP SILVERDALE LOTS 24 AND 25
Silverdale, Washington

FIGURE
1



SOURCE: IMAGE DOWNLOADED FROM GOOGLE EARTH PRO. DATED 8/2020.

DATE: OCTOBER 2021
REV.: –
CHKD: K.L.W.
DRAWN: C.E.H.
PROJ. No.: XXX

Krazan

WATER TABLE MAP

JSP SILVERDALE LOTS 24 AND 25
Silverdale, Washington

FIGURE
2

21 Dwgs\21 ESC\21 Silverdale Property FILE: SILVERDALE FIG 4.DWG PLOTTED: 10/1/21.

Appendix A

Krazan

WATER SAMPLING LOG

Project Name: lots 25 and 62 Project No.: 104-21020

Site Name: — Sample Location: MW-1

Inspector(s): CB Date/Time: 1-21-22 10:20 am

Company: krazan

Weather/Temperature cold, sunny

Well Data

Diameter of Well Casing (inches): 2-inches

Depth to Water Below Top of Casing (feet): 19.25 feet

Total Depth of Well Below Top of Casing (feet): —

Product Thickness (feet): — Sampling/Purge Method: peristaltic pump

Calculate if well parameters do not stabilize per the work plan:

Length of Water Column in Well (feet): —

Liters per Foot: — Liters in Well: —

3 Times Casing Volume (liters): — Liters Purged from Well: —

Water Sample Data

Sample ID: 2021-BW-301 2021-GW-302 Time Sample Collected: 10:40 am

Remarks (Color/Odor): clear/No odor Sheen on purge water? N/A

Stabilized? N/A 3 Casing Volumes Removed? N/A

Purge Vol. (liters)	Time (min)	pH (pH units)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	Salinity (%)	Redox (mv)
Criteria for three consecutive readings		±0.1 SU	±3%	±10% or <10 NTU	±10%	±10%	±10%	±10 mV
	1040	7.01	10.5	21.0		6.7		

Notes PID 20.0ppm

Well Casing Volumes

Liters/Foot ½" = 0.04 1-1/4" = 0.24 2" = 0.62 3" = 1.39 4" = 2.47
1-1/2" = 0.35 2-1/2" = 0.97 3-1/2" = 1.89 6" = 5.56

Krazan

WATER SAMPLING LOG

Project Name: lots 25 and 26 Project No.: 104-21020

Site Name: – Sample Location: MW-2

Inspector(s): CB Date/Time: 1/21/22 9:00am

Company: Krazan

Weather/Temperature: cold/sunny

Well Data

Diameter of Well Casing (inches): 2-inches

Depth to Water Below Top of Casing (feet): 12.2 feet

Total Depth of Well Below Top of Casing (feet): –

Product Thickness (feet): – Sampling/Purge Method: peristaltic pump

Calculate if well parameters do not stabilize per the work plan:

Length of Water Column in Well (feet): –

Liters per Foot: – Liters in Well: –

3 Times Casing Volume (liters): – Liters Purged from Well: –

Water Sample Data

Sample ID: 2021-GW-303 Time Sample Collected: 9:20 am

Remarks (Color/Odor): Clear/No odor Sheen on purge water? N/A

Stabilized? N/A 3 Casing Volumes Removed? N/A

Purge Vol. (liters)	Time (min)	pH (pH units)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	Salinity (%)	Redox (mv)
Criteria for three consecutive readings		±0.1 SU	±3%	±10% or <10 NTU	±10%	±10%	±10%	±10 mV
	9:20	7.06	98.07	9.65		7.1		

Notes: 0.0 ppm

Well Casing Volumes

Liters/Foot ½" = 0.04 1-1/4" = 0.24 2" = 0.62 3" = 1.39 4" = 2.47
1-1/2" = 0.35 2-1/2" = 0.97 3-1/2" = 1.89 6" = 5.56

Krazan

WATER SAMPLING LOG

Project Name: lots 25 and 26 Project No.: 104-21020

Site Name: - Sample Location: MW-3

Inspector(s): CB Date/Time: 11/21/22 11:00 am

Company: krazan

Weather/Temperature: cold/sunny

Well Data

Diameter of Well Casing (inches): 2 inches

Depth to Water Below Top of Casing (feet): 15.2 feet

Total Depth of Well Below Top of Casing (feet): -

Product Thickness (feet): N/A Sampling/Purge Method: Peristaltic Pump

Calculate if well parameters do not stabilize per the work plan:

Length of Water Column in Well (feet): -

Liters per Foot: - Liters in Well: -

3 Times Casing Volume (liters): - Liters Purged from Well: -

Water Sample Data

Sample ID: WA 2021-GW-304 Time Sample Collected: 11:20

Remarks (Color/Odor): clear/No odor Sheen on purge water? -

Stabilized? - 3 Casing Volumes Removed? -

Purge Vol. (liters)	Time (min)	pH (pH units)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	Salinity (%)	Redox (mv)
Criteria for three consecutive readings		±0.1 SU	±3%	±10% or <10 NTU	±10%	±10%	±10%	±10 mV
	11:20	6.9	115.5	22.0		9.3		

Notes: PID: 0.0 ppm

Well Casing Volumes

Liters/Foot ½" = 0.04 1-1/4" = 0.24 2" = 0.62 3" = 1.39 4" = 2.47

1-1/2" = 0.35 2-1/2" = 0.97 3-1/2" = 1.89 6" = 5.56

Krazan

WATER SAMPLING LOG

Project Name: lots 25 and 26 Project No.: 604-21020

Site Name: — Sample Location: MW-4

Inspector(s): Chloe Bartleff Date/Time: 1/21/22 9:35am

Company: krazan

Weather/Temperature: Cold/sunny

Well Data

Diameter of Well Casing (inches): 2-inches

Depth to Water Below Top of Casing (feet): 10.8 feet

Total Depth of Well Below Top of Casing (feet): —

Product Thickness (feet): — Sampling/Purge Method: Peristaltic pump

Calculate if well parameters do not stabilize per the work plan:

Length of Water Column in Well (feet): —

Liters per Foot: — Liters in Well: —

3 Times Casing Volume (liters): — Liters Purged from Well: —

Water Sample Data

Sample ID: 2021-GW-305 Time Sample Collected: 10:00

Remarks (Color/Odor): clear/No odor Sheen on purge water? —

Stabilized? — 3 Casing Volumes Removed? —

Purge Vol. (liters)	Time (min)	pH (pH units)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	Salinity (%)	Redox (mv)
Criteria for three consecutive readings		±0.1 SU	±3%	±10% or <10 NTU	±10%	±10%	±10%	±10 mV
	10:00	6.36	118.8	7.50		6.0		

Notes: —

Well Casing Volumes

Liters/Foot ½" = 0.04 1-1/4" = 0.24 2" = 0.62 3" = 1.39 4" = 2.47

1-1/2" = 0.35 2-1/2" = 0.97 3-1/2" = 1.89 6" = 5.56

Krazan

WATER SAMPLING LOG

Project Name: lots 25 and 26 Project No.: 104-21020

Site Name: - Sample Location: MW-5

Inspector(s): Krazan Date/Time: 1-21-22 11:30 am

Company: CB

Weather/Temperature: Cold / sunny

Well Data

Diameter of Well Casing (inches): 2 inches

Depth to Water Below Top of Casing (feet): 17.5 feet

Total Depth of Well Below Top of Casing (feet): -

Product Thickness (feet): - Sampling/Purge Method: peristaltic pump

Calculate if well parameters do not stabilize per the work plan:

Length of Water Column in Well (feet): -

Liters per Foot: - Liters in Well: -

3 Times Casing Volume (liters): - Liters Purged from Well: -

Water Sample Data

Sample ID: 2021-GW-3006 Time Sample Collected: 11:30 am

Remarks (Color/Odor): Clear / No odor Sheen on purge water? -

Stabilized? - 3 Casing Volumes Removed? -

Purge Vol. (liters)	Time (min)	pH (pH units)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	Salinity (%)	Redox (mv)
Criteria for three consecutive readings		±0.1 SU	±3%	±10% or <10 NTU	±10%	±10%	±10%	±10 mV
	11:30 am	6.77	779	20.2		8.4		

Notes: PID: 0.0 ppm

Well Casing Volumes

Liters/Foot ½" = 0.04 1-1/4" = 0.24 2" = 0.62 3" = 1.39 4" = 2.47

1-1/2" = 0.35 2-1/2" = 0.97 3-1/2" = 1.89 6" = 5.56

Appendix B

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

February 3, 2022

Shawn Williams, Project Manager
Krazan & Associates (Poulsbo)
1230 Finn Hill Rd NW, Suite A
Poulsbo, WA 98370

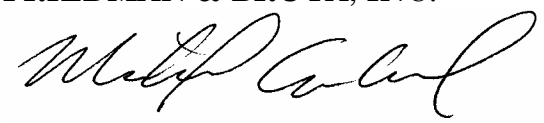
Dear Mr Williams:

Included are the results from the testing of material submitted on January 24, 2022 from the Lots 25 and 26 Proj 104-21020, F&BI 201330 project. There are 33 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
KZP0203R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 24, 2022 by Friedman & Bruya, Inc. from the Krazan & Associates (Poulsbo) Lots 25 and 26 Proj 104-21020, F&BI 201330 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Krazan & Associates (Poulsbo)
201330 -01	2021-GW-301
201330 -02	2021-GW-302
201330 -03	2021-GW-303
201330 -04	2021-GW-304
201330 -05	2021-GW-305
201330 -06	2021-GW-306
201330 -07	Trip Blank

All quality control requirements were acceptable.

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330
Date Extracted: 01/31/22
Date Analyzed: 01/31/22

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
2021-GW-301 201330-01	<1	<1	<1	<3	<100	81
2021-GW-302 201330-02	<1	<1	<1	<3	<100	80
2021-GW-303 201330-03	<1	<1	<1	<3	<100	80
2021-GW-304 201330-04	<1	<1	<1	<3	<100	80
2021-GW-305 201330-05	<1	<1	<1	<3	<100	80
2021-GW-306 201330-06	<1	<1	<1	<3	<100	80
Method Blank 02-0166 MB	<1	<1	<1	<3	<100	81

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330
Date Extracted: 01/26/22
Date Analyzed: 01/28/22

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
2021-GW-301 201330-01	<50	<250	140
2021-GW-302 201330-02	<50	<250	140
2021-GW-303 201330-03	<50	<250	129
2021-GW-304 201330-04	<50	<250	125
2021-GW-305 201330-05	<50	<250	126
2021-GW-306 201330-06	<50	<250	128
Method Blank 02-247 MB	<50	<250	136

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330
Date Extracted: 01/26/22
Date Analyzed: 01/26/22

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
2021-GW-301 201330-01	<50	<250	116
2021-GW-302 201330-02	<50	<250	114
2021-GW-303 201330-03	<50	<250	114
2021-GW-304 201330-04	<50	<250	114
2021-GW-305 201330-05	<50	<250	117
2021-GW-306 201330-06	<50	<250	122
Method Blank 02-247 MB	<50	<250	126

Analysis For Total Metals By EPA Method 6020B

Client ID:	2021-GW-301	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-01
Date Analyzed:	01/26/22	Data File:	201330-01.057
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	2021-GW-302	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-02
Date Analyzed:	01/26/22	Data File:	201330-02.058
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	2021-GW-303	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-03
Date Analyzed:	01/26/22	Data File:	201330-03.059
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	2021-GW-304	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-04
Date Analyzed:	01/26/22	Data File:	201330-04.060
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	2021-GW-305	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-05
Date Analyzed:	01/26/22	Data File:	201330-05.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	2021-GW-306	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-06
Date Analyzed:	01/26/22	Data File:	201330-06.069
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Krazan & Associates (Poulsbo)
Date Received:	NA	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	I2-63 mb
Date Analyzed:	01/26/22	Data File:	I2-63 mb.034
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Lead	<1

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	2021-GW-301	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-01 1/2
Date Analyzed:	01/27/22	Data File:	012712.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	35	11	65
Phenol-d6	24	11	65
Nitrobenzene-d5	76	50	150
2-Fluorobiphenyl	78	44	108
2,4,6-Tribromophenol	76	10	140
Terphenyl-d14	96	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Acenaphthylene	<0.04
Acenaphthene	<0.04
Fluorene	<0.04
Phenanthrene	<0.04
Anthracene	<0.04
Fluoranthene	<0.04
Pyrene	<0.04
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04
Benzo(g,h,i)perylene	<0.08

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	2021-GW-302	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-02 1/2
Date Analyzed:	01/27/22	Data File:	012713.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	40	11	65
Phenol-d6	28	11	65
Nitrobenzene-d5	84	50	150
2-Fluorobiphenyl	84	44	108
2,4,6-Tribromophenol	81	10	140
Terphenyl-d14	99	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Acenaphthylene	<0.04
Acenaphthene	<0.04
Fluorene	<0.04
Phenanthrene	<0.04
Anthracene	<0.04
Fluoranthene	<0.04
Pyrene	<0.04
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04
Benzo(g,h,i)perylene	<0.08

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	2021-GW-303	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-03 1/2
Date Analyzed:	01/27/22	Data File:	012714.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	25	11	65
Phenol-d6	24	11	65
Nitrobenzene-d5	84	50	150
2-Fluorobiphenyl	83	44	108
2,4,6-Tribromophenol	50	10	140
Terphenyl-d14	90	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Acenaphthylene	<0.04
Acenaphthene	<0.04
Fluorene	<0.04
Phenanthrene	<0.04
Anthracene	<0.04
Fluoranthene	<0.04
Pyrene	<0.04
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04
Benzo(g,h,i)perylene	<0.08

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	2021-GW-304	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-04 1/2
Date Analyzed:	01/27/22	Data File:	012715.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	36	11	65
Phenol-d6	27	11	65
Nitrobenzene-d5	87	50	150
2-Fluorobiphenyl	85	44	108
2,4,6-Tribromophenol	70	10	140
Terphenyl-d14	92	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Acenaphthylene	<0.04
Acenaphthene	<0.04
Fluorene	<0.04
Phenanthrene	<0.04
Anthracene	<0.04
Fluoranthene	<0.04
Pyrene	<0.04
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04
Benzo(g,h,i)perylene	<0.08

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	2021-GW-305	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-05 1/2
Date Analyzed:	01/27/22	Data File:	012711.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	39	11	65
Phenol-d6	27	11	65
Nitrobenzene-d5	82	50	150
2-Fluorobiphenyl	80	44	108
2,4,6-Tribromophenol	82	10	140
Terphenyl-d14	95	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Acenaphthylene	<0.04
Acenaphthene	<0.04
Fluorene	<0.04
Phenanthrene	<0.04
Anthracene	<0.04
Fluoranthene	<0.04
Pyrene	<0.04
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04
Benzo(g,h,i)perylene	<0.08

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	2021-GW-306	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-06 1/2
Date Analyzed:	01/27/22	Data File:	012716.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	34	11	65
Phenol-d6	26	11	65
Nitrobenzene-d5	87	50	150
2-Fluorobiphenyl	82	44	108
2,4,6-Tribromophenol	61	10	140
Terphenyl-d14	96	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Acenaphthylene	<0.04
Acenaphthene	<0.04
Fluorene	<0.04
Phenanthrene	<0.04
Anthracene	<0.04
Fluoranthene	<0.04
Pyrene	<0.04
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04
Benzo(g,h,i)perylene	<0.08

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Krazan & Associates (Poulsbo)
Date Received:	Not Applicable	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	02-249 mb
Date Analyzed:	01/27/22	Data File:	012710.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	21	11	65
Phenol-d6	13	11	65
Nitrobenzene-d5	77	50	150
2-Fluorobiphenyl	80	44	108
2,4,6-Tribromophenol	74	10	140
Terphenyl-d14	90	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	<0.02
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	<0.02
Pyrene	<0.02
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	2021-GW-301	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-01
Date Analyzed:	01/27/22	Data File:	012706.D
Matrix:	Water	Instrument:	GC9
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	48	25	160

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	2021-GW-302	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-02
Date Analyzed:	01/27/22	Data File:	012707.D
Matrix:	Water	Instrument:	GC9
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	45	25	160

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	2021-GW-303	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-03
Date Analyzed:	01/27/22	Data File:	012708.D
Matrix:	Water	Instrument:	GC9
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	27	25	160

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	2021-GW-304	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-04
Date Analyzed:	01/27/22	Data File:	012709.D
Matrix:	Water	Instrument:	GC9
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	46	25	160

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	2021-GW-305	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-05
Date Analyzed:	01/27/22	Data File:	012713.D
Matrix:	Water	Instrument:	GC9
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	45	25	160

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	2021-GW-306	Client:	Krazan & Associates (Poulsbo)
Date Received:	01/24/22	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	201330-06
Date Analyzed:	01/27/22	Data File:	012710.D
Matrix:	Water	Instrument:	GC9
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	41	25	160

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Krazan & Associates (Poulsbo)
Date Received:	Not Applicable	Project:	Lots 25 and 26 Proj 104-21020
Date Extracted:	01/26/22	Lab ID:	02-0248 mb
Date Analyzed:	01/27/22	Data File:	012704.D
Matrix:	Water	Instrument:	GC9
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	42	25	160

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 201330-05 Matrix Spike

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	50	<1	94	98	50-150	4
Toluene	ug/L (ppb)	50	<1	92	94	50-150	2
Ethylbenzene	ug/L (ppb)	50	<1	98	100	50-150	2
Xylenes	ug/L (ppb)	150	<3	94	95	50-150	1
Gasoline	ug/L (ppb)	1,000	<100	92	89	53-117	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	104	65-118
Toluene	ug/L (ppb)	50	100	72-122
Ethylbenzene	ug/L (ppb)	50	106	73-126
Xylenes	ug/L (ppb)	150	100	74-118
Gasoline	ug/L (ppb)	1,000	98	69-134

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 201330-05 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	<50	132	116	50-150	13

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	ug/L (ppb)	2,500	120	63-142

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 201330-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	<50	123	121	50-150	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	ug/L (ppb)	2,500	123	63-142

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 201330-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	95	96	75-125	1
Lead	ug/L (ppb)	10	<1	95	96	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	95	80-120
Lead	ug/L (ppb)	10	97	80-120

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: 201330-05 1/2 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	<0.4	89	88	50-150	1
2-Methylnaphthalene	ug/L (ppb)	5	<0.4	87	86	50-150	1
1-Methylnaphthalene	ug/L (ppb)	5	<0.4	90	89	50-150	1
Acenaphthylene	ug/L (ppb)	5	<0.04	93	94	50-150	1
Acenaphthene	ug/L (ppb)	5	<0.04	95	95	50-150	0
Fluorene	ug/L (ppb)	5	<0.04	97	97	50-150	0
Phenanthrene	ug/L (ppb)	5	<0.04	97	96	50-150	1
Anthracene	ug/L (ppb)	5	<0.04	96	93	50-150	3
Fluoranthene	ug/L (ppb)	5	<0.04	98	96	50-150	2
Pyrene	ug/L (ppb)	5	<0.04	107	108	50-150	1
Benz(a)anthracene	ug/L (ppb)	5	<0.04	99	101	50-150	2
Chrysene	ug/L (ppb)	5	<0.04	98	100	50-150	2
Benzo(a)pyrene	ug/L (ppb)	5	<0.04	90	92	50-150	2
Benzo(b)fluoranthene	ug/L (ppb)	5	<0.04	97	98	50-150	1
Benzo(k)fluoranthene	ug/L (ppb)	5	<0.04	99	101	50-150	2
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	<0.04	105	106	50-150	1
Dibenz(a,h)anthracene	ug/L (ppb)	5	<0.04	109	112	50-150	3
Benzo(g,h,i)perylene	ug/L (ppb)	5	<0.08	110	112	50-150	2

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	ug/L (ppb)	5	87	62-90
2-Methylnaphthalene	ug/L (ppb)	5	90	64-93
1-Methylnaphthalene	ug/L (ppb)	5	93	64-93
Acenaphthylene	ug/L (ppb)	5	91	70-130
Acenaphthene	ug/L (ppb)	5	93	70-130
Fluorene	ug/L (ppb)	5	96	70-130
Phenanthrene	ug/L (ppb)	5	94	70-130
Anthracene	ug/L (ppb)	5	95	70-130
Fluoranthene	ug/L (ppb)	5	91	70-130
Pyrene	ug/L (ppb)	5	95	70-130
Benz(a)anthracene	ug/L (ppb)	5	96	70-130
Chrysene	ug/L (ppb)	5	96	70-130
Benzo(a)pyrene	ug/L (ppb)	5	88	70-130
Benzo(b)fluoranthene	ug/L (ppb)	5	95	70-130
Benzo(k)fluoranthene	ug/L (ppb)	5	96	70-130
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	93	70-130
Dibenz(a,h)anthracene	ug/L (ppb)	5	100	70-130
Benzo(g,h,i)perylene	ug/L (ppb)	5	98	70-130

Date of Report: 02/03/22
Date Received: 01/24/22
Project: Lots 25 and 26 Proj 104-21020, F&BI 201330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 201330-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	0.25	<0.1	66	60	50-150	10
Aroclor 1260	ug/L (ppb)	0.25	<0.1	81	83	50-150	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	ug/L (ppb)	0.25	60	25-165
Aroclor 1260	ug/L (ppb)	0.25	73	25-163

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

201330

SAMPLE CHAIN OF CUSTODY

01-24-22 VW3/E04/AI2

Page # 1 of 1

Report To Shawn Williams
Company Krazan and Associates
Address 1230 NW Finn Hill Road Suite A
City, State, ZIP Poulsbo, WA 98370
Phone 306-548-2126 Email Shawn.williams@krazan.com

SAMPLERS (signature)

PROJECT NAME: Lots 25 and 26 Proj# 104-21620

PO #

REMARKS: Results With and Witout Silica Gel
Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Total Lead/Arsenic		MS/MSD	Silica Gel	Notes
																	Total Metals
2021-GW-301	01A-G	1-21-22	10:40am	Water	7	X	X	X			X	X	X			X	per SW 1/25/22 mE
2021-GW-302	02		10:40am		7	X	X	X			X	X	X			X	
2021-GW-303	03		9:20am		7	X	X	X			X	X	X			X	
2021-GW-304	04		11:20am		7	X	X	X			X	X	X			X	
2021-GW-305	05A-S		10:00am		19	X	X	X			X	X	X		X	X	
2021-GW-306	06A-G		11:50am		7	X	X	X			X	X	X			X	
Trip Blank	07A-B																Added @ Lab TWC 01/25/22

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Chloe Bartlett	Krazan		
Received by:	Abbigail Corwen	PBI	1/24/22	1550
Relinquished by:				
Received by:		Samples received at 6 °C		

Friedman & Bruya, Inc.
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Seattle, WA 98119-2029
Ph. (206) 285-8282