

January 4, 2021

Jerome Cruz, Ecology Site Manager Department of Ecology, Northwest Regional Office Toxic Cleanup Program 3190 160<sup>th</sup> Avenue SE Bellevue, Washington 98008-5452

## Re: Quarterly Progress Report

Reporting Period: October – December 2020

Site Names: **BOTHELL LANDING** 

BOTHELL PAINT & DECORATING BOTHELL FORMER HERTZ

### Summary:

City of Bothell continues to implement the Cleanup Action Plans for the afore-mentioned sites as part of the Agreed Orders between the City and the Department of Ecology. Per the requirements of Section VII of the Agreed Orders "Work to be Performed", the attached quarterly progress reports (QPRs) have been prepared for the three-month period preceding this submittal.

Kane Environmental continues to conduct the quarterly groundwater monitoring for all three sites.

Please contact me if you have any questions.

Sincerely,

Notation Martinia

Nduta Mbuthia

Reporting Period: October – December 2020

Date submitted (electronically): January 4, 2021

Date mailed (certified w/return receipt): (deferred due to COVID-19 Stay at Home Order)

Prepared by: Nduta Mbuthia, Project Coordinator

City of Bothell, Public Works Department

Phone: 425.806.6829

Email: nduta.mbuthia@bothellwa.gov

## **CONTENTS**

A. A list of on-site activities that have taken place during the reporting period;

- B. Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests;
- C. Description of all deviations from Schedule (Exhibit D) during the current reporting period
- D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule
- E. All raw data (including laboratory analyses) received by PLP during the past reporting period and an identification of the source of the sample; and
- F. A list of deliverables for the upcoming reporting period if different from the schedule.

Site Name: **BOTHELL LANDING** 

Agreed Order No.:15746, Effective date June 11, 2018

## A. A list of on-site activities that have taken place during this quarter

Groundwater compliance monitoring for the fall quarter was performed in October 2020.

# B. <u>Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests</u>

None

# C. <u>Description of all deviations from the Schedule (Exhibit D) during the current quarter and any planned deviations in the upcoming quarter</u>

None.

## D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule

None; GW compliance monitoring schedule below received Ecology site manager's concurrence:-

- *Q1 Winter 2019: March 5, 2019 March 15, 2019*
- Q2 Spring 2019: May 20, 2019 June 3, 2019
- O3 Summer 2019: July 15, 2019 August 5, 2019
- *Q4 Fall 2019: October 7, 2019 October 25, 2019*
- Q5 Winter 2020: January 6, 2020 January 20, 2020
- Q6 Spring 2020: Week of April 6, 2020 through week of April 20, 2020
- Q7 Summer 2020: Week of July 6, 2020 through week of July 20, 2020
- Q8 Fall 2020: Week of October 5, 2020 through week of October 19, 2020
- Q9 Winter 2021: PENDING

# E. All raw data (including laboratory analyses) received by Defendants during the past quarter and an identification of the source of the sample

Groundwater compliance monitoring was conducted per the CMP Table 3-1B (as modified below). Table of the sampling results is attached.

## Table 3-1B Sampling Approach -- Ground Water SUBSEQUENT ROUNDS

Sample type	Sampling location	Sampling Frequency / Rationale	Analytes
Arsenic		-	
Point of compliance	BLMW-11 BLMW-12 MW-1	Quarterly for two years, then modify based on results and consultation with Ecology*	Total Arsenic Dissolved Arsenic Total petroleum hydrocarbons, diesel and oil range TPH-D, TPH-O, Field parameters

<sup>\*</sup> If compliance monitoring from the Site shows that the arsenic remains at elevated concentrations for eight quarters of monitoring, with no other detections of petroleum hydrocarbon contamination, this data can be used to demonstrate that the elevated concentrations represents a locally high natural background for arsenic. Based on this evidence, a request can be made to remove the institutional controls for ground water at the site and discontinue monitoring.

Naphohalene, Methylnaphothalene, & 2-Methylnaphotheles

LANDING – To include in A. A list of on-site activities that have taken place during this quarter

During a meeting with Jerome Cruz, Ching Pi and John Kane, Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene will continued to be included in compliance groundwater monitoring for one well, BL-MW-12 only. Concentrations of these chemicals were above their respective MTCA cleanup standard.

# F. A list of deliverables for the upcoming quarter if different from the schedule. Same as the schedule

## **EXHIBIT D**

# Bothell Landing Facility Schedule of Deliverables

Deliverables.	<u>Due Date</u>
Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and a Title Report	Within 120 days after the effective date of the Agreed Order
Final IC Plan and Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft IC Plan and Draft Environmental Covenant(s).
Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after Ecology's approval of the Final IC Plan or Ecology's signature as grantee of the Final Environmental Covenant(s), whichever occurs last.
Start ground water monitoring	Within 90 days after final CAP is approved
Combined TPH/Arsenic ground water monitoring	Quarterly for two years, then modify based on results and consultation with Ecology
Combined TPH/Arsenic ground water monitoring reports	90 days after 4 <sup>th</sup> quarter sampling
Progress reports	Every 3 months unless Ecology authorizes less frequent reporting

Site Name: **BOTHELL PAINT & DECORATING**Agreed Order No.: 15748 (Effective date May 31, 2018)

## A. A list of on-site activities that have taken place during this quarter

Groundwater compliance monitoring for the spring quarter was performed in October 2020; sampling results are attached.

## B. <u>Detailed description of any deviations from required tasks not otherwise documented in project plans</u> or amendment requests

None

# C. <u>Description of all deviations from the Schedule (Exhibit D) during the current quarter and any planned deviations in the upcoming quarter</u>

None

## D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule

None; GW compliance monitoring schedule below received Ecology site manager's concurrence:-

- *O1 Winter 2019: March 5, 2019 March 15, 2019*
- *Q2 Spring 2019: May 20, 2019 June 3, 2019*
- Q3 Summer 2019: July 15, 2019 August 5, 2019
- Q4 Fall 2019: October 7, 2019 October 25, 2019
- *Q5 Winter 2020: January 6, 2020 January 20, 2020*
- Q6 Spring 2020: Week of April 6, 2020 through week of April 20, 2020
- 07 Summer 2020: Week of July 6, 2020 through week of July 20, 2020
- Q8 Fall 2020: Week of October 5, 2020 through week of October 19, 2020
- Q9 Winter 2021: PENDING

# E. All raw data (including laboratory analyses) received by Defendants during the past quarter and an identification of the source of the sample

Groundwater compliance monitoring was conducted per the CMP Table 3-1B below. Table of the sampling results is attached.

## Table 3-1B Sampling Approach - Ground Water SUBSEQUENT ROUNDS

Sample type	Sampling location	Sampling Frequency / Rationale	Analytes
Petroleum hydroca	rbons – Ground	l Water	,
Point of Compliance	BPMW-6 BPMW-2R* BC-10	Quarterly for two years, then modify based on results and consultation with Ecology  Duration: 5 years	Total petroleum hydrocarbons, diesel and oil range TPH-D, TPH-O, nitrate, manganese (soluble), sulfate, methane, alkalinity.
		BC-10 will be monitored for two quarters to confirm compliance, if results exceed cleanup levels, monitoring will be the same as other wells.	Field parameters: dissolved oxygen, redox potential, pH, conductivity, temperature, ferrous iron
Petroleum hydroca	rbons – Storm \	Vater	
1 sample upgradient of Site, 2 samples on Site	See Figure 2	One time event	Total petroleum hydrocarbons, gasoline, diesel and oil range, BTEX TPH-G/BTEX, TPH-D, TPH-O, HVOCs
Arsenic - Ground	Water		
Point of compliance		Same as petroleum hydrocarbon, but with additional quarterly monitoring for two years if TPH decreases to be in compliance** BC-10 will be monitored for two quarters to confirm compliance, if results exceed cleanup levels, monitoring will be the same as	Total Arsenic Dissolved Arsenic Field parameters

<sup>\*</sup> BPMW-2R is a replacement well to be installed 30 to 35 feet northwest of BPMW-2, which was located in the middle of the newly constructed Horse Creek and therefore decommissioned.

# F. <u>A list of deliverables for the upcoming quarter if different from the schedule.</u> Same as the schedule

## **EXHIBIT D**

## Bothell Paint & Decorating Facility Schedule of Deliverables

Deliverables.	Due Date
Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and a Title Report	Within 120 days after the effective date of the Agreed Order
Final IC Plan and Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft IC Plan and Draft Environmental Covenant(s).
Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after Ecology's approval of the Final IC Plan or Ecology's signature as grantee of the Final Environmental Covenant(s), whichever occurs last.
Start ground water monitoring	Within 90 days after final CAP is approved
Combined TPH/MNA/Arsenic ground water monitoring	Quarterly for two years, then modify based on results and consultation with Ecology  Duration: 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Combined TPH/MNA/Arsenic ground water monitoring reports	90 days after 4 <sup>th</sup> quarter sampling Annually for a minimum of 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Progress reports	Every 3 months unless Ecology authorizes less frequent reporting

Site Name: **BOTHELL HERTZ** 

Agreed Order No.: 15747 (Effective date May 31, 2018)

## A. A list of on-site activities that have taken place during this quarter

Groundwater compliance monitoring for the spring quarter was performed in October 2020; sampling results are attached.

# B. <u>Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests</u>

None

## C. <u>Description of all deviations from the Schedule (Exhibit D) during the current quarter and any planned deviations in the upcoming quarter</u>

None

## G. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule

None; GW compliance monitoring schedule below received Ecology site manager's concurrence:-

*O1 – Winter 2019: March 5, 2019 – March 15, 2019* 

Q2 - Spring 2019: May 20, 2019 - June 3, 2019

Q3 – Summer 2019: July 15, 2019 - August 5, 2019

Q4 - Fall 2019: October 7, 2019 - October 25, 2019

Q5 – Winter 2020: January 6, 2020 – January 20, 2020

Q6 – Spring 2020: Week of April 6, 2020 through week of April 20, 2020

Q7 – Summer 2020: Week of July 6, 2020 through week of July 20, 2020

Q8 – Fall 2020: Week of October 5, 2020 through week of October 19, 2020

Q9 – Winter 2021: PENDING

## D. All raw data (including laboratory analyses) received by Defendants during the past quarter and an identification of the source of the sample

Groundwater compliance monitoring was conducted per the CMP Table 3-1B below. Table of the sampling results is attached.

## E. A list of deliverables for the upcoming quarter if different from the schedule.

Same as the schedule

## Table 3-1B Sampling Approach – Ground Water SUBSEQUENT ROUNDS

Sample type	Sampling location	Sampling Frequency / Rationale	Analytes
Petroleum hydroca	rbons – Ground	d Water	
Point of Compliance	HZMW-19 BLMW-8 BC-16	Quarterly for two years, then modify based on results and consultation with Ecology  Duration: 5 years	Total petroleum hydrocarbons, diesel and oil range TPH-D, TPH-O, nitrate, manganese (soluble), sulfate, methane, alkalinity.
Arsenic – Ground V	Motor		Field parameters: dissolved oxygen, redox potential, pH, conductivity, temperature, ferrous iron
Point of compliance	HZMW-1 HZMW-4 HZMW-12 HZMW-17 BC-16	Same as petroleum hydrocarbon, but with additional quarterly monitoring for two years if TPH decreases to be in compliance** BC-10 will be monitored for two quarters to confirm compliance, if results exceed cleanup levels, monitoring will be the same as other wells.	Total Arsenic Dissolved Arsenic Field parameters

## **EXHIBIT D**

## Bothell Former Hertz Facility Schedule of Deliverables

Deliverables.	Due Date
Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and a Title Report	Within 120 days after the effective date of the Agreed Order
Final IC Plan and Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft IC Plan and Draft Environmental Covenant(s).
Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after Ecology's approval of the Final IC Plan or Ecology's signature as grantee of the Final Environmental Covenant(s), whichever occurs last.
Start ground water monitoring	Within 90 days after final CAP is approved
Combined TPH/MNA/Arsenic ground water monitoring	Quarterly for two years, then modify based on results and consultation with Ecology  Duration: 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Combined TPH/MNA/Arsenic ground water monitoring reports	90 days after 4 <sup>th</sup> quarter sampling Annually for a minimum of 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Progress reports	Every 3 months unless Ecology authorizes less frequent reporting

on the LD	Sample Date	Aproxima & Depth to	Piesel Range	8 / 8	"9e Oganics Total	Dissolved	008/	lissoned	08/	Pissowed	04/	Pissowed	04	osioosia Osisooned	Dissolved Men	Sem-Volatie O'Genic	Volenie Ogenic Compour	lethane	III ale las Mir-	Sullate	erous Iron	<sup>7</sup> 0lai Alkalinia.	/ As CaCO3)	Dissolved Ov	Oxidation Reduction	ondectivity.
3		Feet Below Ground Surface	ug/L	ug/L	Arsi	enic	Cadr	mium n/l	Chron ug/		Lea ug,		Merc ug	cury	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mV	uS/cm
	9/4/2018	8.05	<49.8	<99.7	<1.75	<1.75		<0.200	13.6	12.8	<0.500	<0.500	<0.100	<0.100	<2.00	nd	PCE - 10.2	<0.00863	1.69	7.42	0.0	52.1	6.52	8.48	63.7	140.0
	9/5/2019 5/21/2019	6.5 6.81	-	-	<1.75 <3.3	<1.75 <3.0	-	-	-	-	-	-	-	-		-		-	-	-	0.0	-	6.18 5.99	5.59 7.00	152.5 66.7	149.3 159.6
	7/16/2019	7.2		-	<3.0	<3.0	-	-	-		-	-	-	-	-	-	-	-	-	-	0.0	-	6.23	7.98	158.3	203.4
HZ-MW-1:W	1/10/2020	7.45 6.39	-	-	<3.3 <3.3	<3.0 <3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.4 6.34	3.56 1.74	148.7 228.8	200.1 197.9
	4/9/2020	6.35	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.39	0.06	172.7 172.0	153.0
	7/13/2020 10/12/2020	6.88 7.42	-	-	<3.3 <3.3	<3.0 <3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	5.75 6.12	0.69 9.00	117.0	289.5 291.0
	9/4/2018 3/5/2019	7.61 5.8	<50.0	124	<1.75 <1.75	<1.75 <1.75	<0.200	<0.200	1.15	<1.00	<0.500	<0.500	<0.100	<0.100	165	nd -	SR -	<0.00863	1.7	37.4	0.0	116	6.37 6.27	2.36 0.24	12.8 133.6	359.0 486.1
	5/21/2019	6.37	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	6.1	0.35	26.2	426.1
HZ-MW-4:W	7/16/2019 10/11/2019	7.2 7.13	-	-	<3.0 <3.3	<3.0 <3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.05 6.37	4.65 1.88	114.6 100.1	396.0 353.8
	1/10/2020 4/9/2020	6 6.11	-	-	<3.3 <3.3	<3.0 <3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.37 6.36	0.33	175.4 166.3	459.3 489.0
	7/13/2020	6.24		-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	5.82	0.41	221.1	446.5
	10/4/2020 9/5/2018	7.19 10.85	118 b	253	9.20 4.84	<3.0 <b>5.54</b>	<0.200	<0.200	<1.00	<1.00	<0.500	<0.500	<0.100	<0.100	4,090	- nd	- nd	3.17	<0.1	0.367	0.0 2.5	608	6.18 6.38	11.00 0.32	236.3 33.1	382.8 1,180
	3/6/2019	8.33	-	-	2.89	<1.75	-	-	-	-	-	-	-	-	•	-	1	-	-	-	1.0	-	6.37	0.59	-66.9	1,063
	5/22/2019 7/19/2019	9.46 10.35	-	-	4.20 4.60	3.20 3.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.0 1.5	-	6.01 6.14	0.26	-115.3 9.7	1,151 1,220
HZ-MW-12:W	10/9/2019	10.7 8.31	-	-	4.40 5.20	3.80 4.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.38 6.38	0.03 0.21	-39.3 -3.4	1,133
	1/8/2020 4/8/2020	8.61		-	3.60	<3.0	-	-	-		-	-	-	-	-	-	-	-	-	-	2.0	-	6.46	0.13	-52.2	1,015 1,085
	7/8/2020 10/13/2020	9.29 10.24	-	-	<3.3 3.60	<3.0 <b>3.70</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5 2.0	-	5.97 6.12	0.35	-9.5 -21.4	1,150 1,129
	9/4/2018	7.9	<50.0	<99.9	<1.75	<1.75	<0.200		<1.00	<1.00	<0.500	<0.500	<0.100	<0.100	234	nd	SR	0.00892	<0.1	17.7	3.0	111	6.85	7.94	15	269.0
	3/5/2019 5/23/2019	7.1 7.08	-	-	<1.75 <3.3	<1.75 <3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.5 1.5	-	6.76 6.31	0.13 1.02	-24.9 -79.6	269.6 304.0
HZ-MW-17:W	7/17/2019	7.63 7.7	-	-	<3.0 <3.3	<3.0 <3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0 0.5	-	6.65 6.98	0.07	-12.1 41.4	8.4 340.5
	1/17/2020	7.15	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	6.96	0.14	-21.6	252.3
	4/8/2020 7/10/2020	7.01 7.11	-	-	<3.3 <3.3	<3.0 <3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.74 6.35	0.41	-11.1 -8.6	382.4 329.6
	10/13/2020 9/5/2018	7.52 7.69	125 b	150	<3.3 <1.75	<3.0 <1.75	<0.200	<0.200	- <1.00	- <1.00	<0.500	<0.500	<0.100	- <0.100	954	- nd	- SR	0.0296	- <0.1	65.6	2.0 3.5	- 198	6.61 6.34	0.33 0.48	-15.4 26.1	299.6 513.0
	3/5/2019	6.00	210 <sup>b</sup>	<98.5	-	-	-	-	-	-	-	-	-	-	136	-	-	0.0332	0.414 <sup>H</sup>	8.98	2.0	162	5.94	0.33	77.7	221.1
	5/21/2019 7/16/2019	6.25 7.1	<b>410</b> <260	<420 <420	<3.3 <3.0	<3.0 <3.0	-	-	-	-	-	-	-	-	720 850	-	-	0.11 0.035	0.14 <0.050	17 44	4.0 2.0	180 210	5.87 6.09	0.31	-11 45.9	330.9 520.9
HZ-MW-19:W	10/16/2019	6.8	340	950	<3.3	<3.0	-	-	-	-	-	-	-	-	840	-	-	0.018	<0.050	48	1.5	190	6.33	0.04	15.9	486.5
	1/10/2020 4/9/2020	4.82 5.21	510 430	<210 <b>370</b>	<3.3 <3.3	<3.0 <3.0		-	-	-	-	-	-	-	32 71	-	-	0.01 0.06	1.8 0.24	23 13	0.0	98 120	6.02 6.15	1.67 0.33	198.9 124.4	244.5 242.5
	7/15/2020 10/12/2020	6.24 6.71	610 370	530 2,100	<3.3 <3.3	<3.0 <3.0	-	-	-	-	-	-	-	-	430 190	-	-	0.29 0.0061	<0.050 0.53	45 30	6.0 3.5	180 120	5.94 5.92	0.35 0.56	47.8 178.4	388.5 303.0
	9/5/2018	8.77	91.4 <sup>b</sup>	104	3.34	<1.75	<0.200	<0.200	2.35	<1.00	2.91	<0.500	<0.100	<0.100	3,470	nd	nd	2.18	<0.1	13	3.0	560	6.3	0.92	31.4	1,040
	3/6/2019 5/22/2019	3.78 5.89	<50.4 <260	179 450	<b>2.56</b> <3.3	<1.75 <3.0	-	-	-	-	-	-	-	-	3,760 4,600	-	-	3.44 2.1	0.31	270 260	3.0 4.5	371 510	6.37 6.09	0.44	-31 -114.1	1,118 1,292
BC-16:W	7/19/2019 10/11/2019	7.63 8.32	<260 <270	<b>540</b> <440	<3.3 <3.3	<3.0 <3.0	-	-	-	-	-	-	-	-	4,800 3.900	-	-	8.9 6	<0.050 <0.050	160 61	2.0	560 520	6.15 6.36	0.84	39.7 -35.3	1,347 1,150
BC-10.W	1/8/2020	3.55	260	350	<3.3	<3.0	-	-	-	-	-	-	-	-	5,600	-	-	1.9	0.13	300	1.5	560	6.44	0.14	-30.1	1,500
	4/8/2020 7/8/2020	4.19 5.74	570 520	590 630	<3.3 <3.3	<3.0 <3.0	-	-	-	-	-		-	-	3,800 4,800	-	-	3.1 3.7	<0.050 0.14	340 260	0.5 0.5	520 540	6.55 6.13	0.09	-46.3 -29.8	1,320 1,413
	10/13/2020	9.04	690	1,400	<3.3	<3.0	-	-	-	-					4,700	-	-	6.7	0.10	140	0.5	510	6.1	0.22	-26.8	1,236
	11/21/2018 3/6/2019	8.53 7.72	<b>879</b> <sup>b</sup> <49.5	1,680 234	6.63	2.12	0.276	<0.200	1.25	<1.00	<0.500	<0.500	<0.100	<0.100	1,070 3,480	SR -	nd -	0.648 4.26	<0.1 <0.100	2.37 1.7	2.5 2.5	244 348	6.56 6.74	0.19	43.5 -64.4	570.7 669.8
	5/21/2019 7/17/2019	7.91 8.34	400 470	720 1,000	7.10 8.10	5.60 6.50	-	-	-	-	-	-	-	-	2,400 2,700	-	-	2.90 3.30	0.14	<5.0 <5.0	3.0 2.0	310 340	6.46 6.36	0.27	-101.8 -27.4	602.6 746.0
BLMW-8R:W	10/11/2019	8.34	<270	720	27	16	-	-	-	-	-	-	-	-	2,600	-	-	1.9	<0.050	<5.0	1.5	370	6.97	0.07	-90.5	776.0
	1/13/2020 4/9/2020	7.57 7.43	220 300	540 760	26 31	18 19	-	-	-	-	-	-	-	-	3,300 3,400	-	-	4.4 6.5	<0.050 <0.050	18 19	1.0 2.5	410 410	6.96 7.08	0.19 0.14	-100.1 -107.9	806.0 806.0
	7/8/2020	7.66	<210	870	58	52	-	-	-	-	-	-	-	-	3,200	-	-	4.6	0.059	20	2.5	440	6.70	0.31	-52.4	911.0
Site Spe	10/12/2020 ecific Cleanup		<220 500	<b>750</b> 500	<b>84</b>	<b>21</b>	-	-	-	-	-	-	-	-	2,600	-	-	2.9	<0.050	20	2.5	390	6.69	0.38	-66.2	844.0
MTCA Method A	or Method B	Cleanup Level^	500	500	5.	.0	5.	.0	50	)	15	5	2.	0	(2,240)	Varies#	Varies#	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:
All results reported in ug/L (micrograms per liter), or mg/L (milligrams per liter)
ug/L = micrograms per liter (equivalent to parts per billion (ppb)]
mg/L = milligrams per liter (equivalent to parts per million (ppm)]
Bold concentrations are detectable concentrations, below their Site Specific Cleanup Level (if available).
Shaded and Bold concentrations are detectable concentrations, exceeding their Site Specific Cleanup Level
nd = No analytes detected above the laboratory reporting limit. See alaboratory analytical report for full list of results
# = Various cleanup levels for multiple analytes. See laboratory analytical report for full list of results
H = Holding times for preparation or analysis exceeded
SR = Minor detections of other VOCs or SVOCs, at concentrations below state cleanup levels. See analytical report for specific detections.
- = Not analyzed
^ = MTCA Method B Cleanup Level in parentheses
+ = Site specific cleanup level as established in Cleanup Action Plan dated May 29, 2018

Page 1 of 1 Kane Environmental, Inc.

Table 2
Compliance Groundwater Sampling
Bothell Landing Site
Bothell, Washington

Samue 10	Sample Date	Aporovimate Depth to	Diesel Range O.	Š'/ ,	Total	Dissoured	lota,	Dissohed	/ot <sub>\$/</sub>	Dissolved	<sup>7</sup> O⁄s <sub>4</sub> /	Dissolved	Polsy/	Dissolved	Medo Hitalene	1-Methyllephi	- Methyriaph	Other Semi-Volution	Other Volatile O'gen;	remoussing.	140	Dissolved Ostra	Oxidation Reduction	Condecting
		Feet Below		//	Ars	enic	Cadn	mium	Chro	mium	Le	ead	Mer	cury	//	//	//						17	0/
		Ground Surface	ug/L	ug/L	ug	g/L	ug	ı/L	ug	g/L	u	g/L	uģ	g/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L		mg/L	mV	uS/cm
	9/6/2018	6.96	<50.0	101	<1.75	<1.75	<0.200	<0.200	<1.00	3.51	0.911	<0.500	<0.100	<0.100	<1.00	<0.503	<0.503	nd	nd	2.5	6.48	0.26	64.8	570
	3/11/2019	5.85	<52.8	<106	<1.75	<1.75	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	6.37	0.32	33.3	428.1
	5/24/2019	6.38	<260	<420	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	6.05	0.39	-77.3	488.9
	7/17/2019	7.05	<260	470	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	6.26	0.19	5.9	586
MW-1:W	10/8/2019	6.72	<250	<400	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	6.49	0.04	-8.8	512
	1/13/2020	5.41	<250	<400	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	6.58	1.79	59.8	299.4
	4/10/2020	5.76	<250	410	9.6	8.20	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	5.92	0.13	66.3	206
	7/16/2020	6.33	<200	270	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	6.02	0.32	41	462
	10/8/2020	6.27	<220	530	<3.3	<3.0	0.000		-	-	-		0.400	0.400	4.00	-0.504	0.504		-	2.0	6.09	0.19	59.8	501.7
	9/6/2018 3/6/2019	9.84 5.02	<b>91.8 b</b> <50.5	167	78.5 6.97	11.3 3.58	<0.200	<0.200	1.61	6.88	0.882	<0.500	<0.100	<0.100	<1.00	<0.501	<0.501	nd	nd	2.0	6.48 6.56	0.12 0.27	-4.7 -49.1	920 388.8
	5/22/2019	8.31	<50.5 <260	159 510	7.9	7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5 2.5	6.17	0.27	-49.1 -82.2	404.7
	7/19/2019	9.44	<260	<420	27	21	-		-	-	-	-	-	-	-	-	-	-	-	2.0	6.33	0.25	-02.2	589.6
BL-MW-11:W	10/9/2019	9.44	<260	450	30	24	-		-	-	<u> </u>	-	_	_	-	-	-	-	_	1.5	6.59	0.00	-100.5	601
DL-WW-11.W	1/8/2020	5.97	<260	420	12	9.2	-			-		_	_	_						1.0	6.66	0.14	24.5	340.6
	4/10/2020	5.28	<260	270	7.4	5.3	_	-	_	_		-	-	_	_	-	_	-	_	2.5	6.56	4.45	-27.9	367.9
	7/16/2020	8.02	<210	520	20	15	-	-	-	_	_	-	_	-	_	-	_	-	-	2.5	6.14	0.26	-38	536.9
	10/8/2020	9.32	<230	570	28	15	-	-	_	_	_	_	_	_	_	_	-	<u>-</u>	_	2.0	6.03	0.29	18.6	574
	9/6/2018	9.51	362 b	144	87.6	14.4	<0.200	<0.200	3.75	6.92	0.712	<0.500	<0.100	<0.100	370*	13.3	12.3	SR	SR	2.5	6.62	0.1	34.8	840
	3/11/2019	7.75	<53.1	114	17.7	3.6	-	-	•	-	•	-	-	-	<0.100	<0.100	<0.100	-	-	2.5	6.02	0.27	52.2	207.5
	5/22/2019	8.25	<260	<420	<3.3	<3.0	-	-	-	-	-	-	_	_	_	-	-	-	-	2.5	5.39	0.49	85.8	70.2
	7/22/2019	9.52	<260	790	16	14	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	5.91	0.04	84.8	500.3
BL-MW-12:W	10/9/2019	9.6	<250	<400	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	5.83	0.13	171.4	66.3
	1/30/2020	7.06	<210	<210	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	5.35	0.34	130.8	47.5
	4/10/2020	8.17	<210	<210	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	6.56	0.22	20.5	420.5
	7/16/2020	9.07	<210	980	26	22	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	5.85	0.25	43.4	449.4
	10/8/2020	9.4	<230	780	22	20	-	-	-	-	-	-	_	-	_	-	-	-	-	2.0	5.76	0.22	78.6	199.3
Site Spe	ecific Cleanup L	evel +	500	500	1	10																		
MTCA Method A	A or Method B C	Cleanup Level^	500	500	5	i.0	5.	.0	5	50		15	2	.0	160	(1.51)	32	Varies#	Varies#	n/a	n/a	n/a	n/a	n/a

### Notes:

All results reported in ug/L (micrograms per liter), or mg/L (milligrams per liter)

ug/L = micrograms per liter [equivalent to parts per billion (ppb)]

mg/L = miligrams per liter [equivalent to parts per billion (ppb)]

**Bold** concentrations are detectable concentrations, below their Site Specific Cleanup Level (if available).

Shaded and Bold concentrations are detectable concentrations, exceeding their Site Specific Cleanup Level

nd = No analytes detected above the laboratory reporting limit. See laboratory analytical report for full list of results # = Various cleanup levels for multiple analytes. See laboratory analytical report for full list of analytes

b = Identified as Diesel Range Organics, indicating the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24).

SR = Minor detections of other VOCs or SVOCs, at concentrations below state cleanup levels. See analytical report for specific detections.

- = Not analyzed

^ = MTCA Method B Cleanup Level in parentheses

\* - Result from analysis by EPA Method 8260. Concentration of 160 ug/L reported from analysis by EPA Method 8270

+ = Site specific cleanup level as established in Cleanup Action Plan dated May 24, 2018

Kane Environmental, Inc.

Table 3 Compliance Groundwater Sampling Bothell Paint Site Bothell, Washington

Samole 1D	Sample Date	Approximate Depth to	Diesel Range	Heavy Oil Ran.	704ay	Dissolled	<sup>7</sup> 0ta <sub>9</sub> /	Dissolved	<sup>7</sup> otay	Dissolled	<sup>7</sup> 0ta <sub>l</sub>	Dissolled	7,043/	Dissolhed	Dissolved Mass	Semi. Volatile O'gani,	Volatile O'Genie Compo <sub>u</sub>	Methane	Wiirate (as Mir.	Sulfate	Ferrous Iran		O3e3 sp. 1. Ha	Dissolved Oxygen	Oxidation Reduction	Condectivity
		Feet Below	,,	,,	Arso	enic	Cadn	nium	Chro	mium	Le	ad	Mei	rcury	"	,,	,,	"	,,	,,	,,	,,		"	.,	0/
		Ground Surface	ug/L	ug/L	ug	ı/L	ug,	/L	ug	g/L	ug	g/L	uį	g/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mV	uS/cm
	11/20/2018	8.08*	51.4 b	<101	<1.75	<1.75	<0.200	<0.200	1.72	<1.00	<0.500	<0.500	<0.100	<0.100	161	SR	nd	0.106	<0.1	5.98	1.0	124	7.27	0.14	3.2	229.5
	3/7/2019	5.5*	122 <sup>b</sup>	219	-	-	-	-	-	-	-	-	-	-	94	-	-	0.651	<0.100	1.87	0.5	117	7.47	0.19	-64.7	240
	5/20/2019	7.98*	<260	<420	-	-	-	-	-	-	-	-	-	-	60	-	-	0.66	0.055	<5.0	0.5	110	7.25	0.26	-120.9	235
DD1 1111 0D 111	7/18/2019	8.46*	<260	<420	-	-		-	-	-	-	-	-	-	92	-	-	1.2	<0.050	<5.0	0.5	110	7.14	0.07	38.9	258.7
BPMW-2R:W	10/10/2019	8.50*	<260	<410	-	-	-	-	-	-	-	-	-	-	120	-	-	0.9	<0.050	<5.0	0.5	110	7.51	0	-78.5	246.7
	1/9/2020	8.09	<260	350	-	-	-	-	-	-	-	-	-	-	76	-	-	1.5	<0.050	<5.0	0.5	110	7.29	0.16	-67.6	247.1
	4/7/2020	7.95	<260	<410	-	-	-	-	-	-	-	-	-	-	130	-	-	1.2	<0.050	<5.0	0.5	120	7.38	0.14	-71.5	248.2
	7/7/2020	8.33	<210	<210	-	-	-	-	-	-	-	-	-	-	130	-	-	1.2	<0.050	5.5	0.5	120	6.83	0.36	-13.6	249.4
	10/9/2020	8.71	<220	270	-	-	-	-	-	-	-	-	-	-	140	-	-	1.1	<0.050	<5.0	0.5	110	6.90	0.3	18.1	239.6
	11/20/2018	2.87	<50.2	194	16.5	15.0	0.207	<0.200	4.51	2.94	4.46	1.09	<0.100	<0.100	67.7	nd	nd	0.511	4.26	19.9	0.0	68.0	5.96	0.11	105.4	292.8
	3/7/2019	2.25	<50.3	<101	14.7	13.8	-	-	-	-	-	-	-	-	27.7	-	-	2.25	10 <sup>e</sup>	5.18	0.5	25.7	5.68	0.32	98.9	159.2
	5/20/2019	1.4	<270	500	9.3	8.4	-	-	-	-	-	-	-	-	26	-	-	1.8	25	<5.0	0.5	44.0	5.87	0.44	32.8	359.6
	7/18/2019	3.14	<300	<490	44	38	-	-	-	-	-	-	-	-	130	-	-	5.9	<0.050	<5.0	1.5	120.0	6.06	0.07	109.9	382.4
BPMW-6:W	10/10/2019	2.71	<290	740	9.1	5.8	-	-	-	-	-	-	-	-	190	-	-	4.4	9.1	<5.0	1.0	110.0	6.20	0.02	99.5	364
	1/9/2020	0.35	<210	240	11	8.0	-	-	-	-	-	-	-	-	23	-	-	5.3	9.4	<5.0	0.0	44.0	5.86	0.62	174	211.6
	4/7/2020	1.71	<210	430	11	8.7	-	-	-	-	-	-	-	-	16	-	-	3.8	19	<5.0	0.0	42.0	6.00	1.15	142.4	274.1
	7/7/2020	2.28	<220	350	19	16	-	-	-	-	-	-	-	-	79	-	-	4.2	0.21	<5.0	1.5	64.0	5.34	0.41	121.7	202.8
	10/9/2020	2.55	<240	390	11	10	-	-	-	-	-	-	-	-	110	-	-	9.5	12	8.3	1.5	80.0	5.70	0.29	237.5	364.1
	11/27/2018	9.71	<49.9	<99.8	<1.75	<1.75	<0.200	<0.200	1.03	<1.00	<0.500	<0.500	<0.100	<0.100	184	nd	nd	0.958	<0.1	6.41	2.0	160	6.53	0.38	27.7	384.7
BC-10:W	3/15/2019	9.42	<50.3	<101	<1.75	<1.75	-	-	-	-	-	-	-	-	194	-	-	0.0872	<0.10	6.22	3.0	167	6.62	0.23	-1	351
	5/23/2019	10.9	<260	<410	<3.3	<3.0	-	-	-	-	-	-	-	-	150	-	-	0.23	<0.050	6	4.0	160	6.27	0.28	-149	348.8
	3/7/2019	10.06	-	-	<1.75	<1.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.44	0.26	-4.8	467.4
	5/20/2019	11.06	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0	-	6.22	0.33	-45.7	461.9
	7/18/2019	11.87	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	6.13	0.07	50	509.6
BC-11R	10/10/2019	11.7	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	6.51	0.01	-20.8	482.9
DO-111K	1/21/2020	9.66	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.42	0.02	-21.8	465.5
	4/7/2020	9.73	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.53	0.11	2.3	501.5
	7/7/2020	10.31	-	-	<3.0	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	6.03	0.47	36.5	526.6
	10/9/2020	11.15	-	-	<3.0	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-	6.07	0.26	50.1	486.9
	3/7/2019	12.56	-	-	12.9	4.83	-	-		-	-	-	-	-		-	-	-	-	-	2.5	-	6.52	0.24	0.4	515.6
	5/23/2019	12.35	-	-	22	11	-	-		-	-	-	-	-	-	-	-	-	-	-	3.0	-	6.21	0.37	-162.7	514.9
	7/19/2019	12.42	-	-	14	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	6.56	0.08	-23.3	535.6
BPMW-1	10/10/2019	12.16	-	-	17	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.62	0	-43.9	509
DI WIVV-I	1/21/2020	11.72	-	-	16	8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	6.65	0.1	-14.9	500.8
	4/8/2020	12.08	-	-	19	11	-	-	-	-	-	-	-	-		-	-	-	-	-	2.0	-	6.60	0.14	-24.4	527
	7/8/2020	12.1	-	-	18	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	6.16	0.39	3.6	567.2
	10/9/2020	12.08	-	-	18	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.18	0.29	2.2	544.1
Site Spe	ecific Cleanup L	Level +	500	500	1	0																				
MTCA Method A	A or Method B	Cleanup Level^	500	500	5.	.0	5.0	0	5	50	1.	5	2	2.0	(2,240)	Varies#	Varies#	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
				•	•		•						•			•			•		•	•	-			

All results reported in ug/L (micrograms per liter), or mg/L (milligrams per liter)

ug/L = micrograms per liter [equivalent to parts per billion (ppb)]

mg/L = milligrams per liter [equivalent to parts per million (ppm)]

**Bold** concentrations are detectable concentrations, below their Site Specific Cleanup Level (if available).

Shaded and Bold concentrations are detectable concentrations, exceeding their Site Specific Cleanup Level nd = No analytes detected above the laboratory reporting limit. See laboratory analytical report for full list of results # = Various cleanup levels for multiple analytes. See laboratory analytical report for full list of analytes

\* = Well is angled at approximately 47 degree angle

b = Identified as Diesel Range Organics, indicating the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24).

SR = Minor detections of other VOCs or SVOCs, at concentrations below state cleanup levels. See analytical report for specific detections.

- = Not analyzed

^ = MTCA Method B Cleanup Level in parentheses

+ = Site specific cleanup level as established in Cleanup Action Plan dated May 29, 2018

Kane Environmental, Inc. Page 1 of 1



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 21, 2020

Jeff Jensen Kane Environmental, Inc. 4015 13th Avenue West Seattle, WA 98119

Re: Analytical Data for Project 82302-15.3

Laboratory Reference No. 2010-152

### Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 13, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 



Project: 82302-15.3

### **Case Narrative**

Samples were collected on October 12 and 13, 2020 and received by the laboratory on October 13, 2020. They were maintained at the laboratory at a temperature of  $2^{\circ}$ C to  $6^{\circ}$ C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project: 82302-15.3

## DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	10-152-03					
Diesel Range Organics	0.69	0.21	NWTPH-Dx	10-15-20	10-15-20	
Lube Oil Range Organics	1.4	0.21	NWTPH-Dx	10-15-20	10-15-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	96	50-150				
Client ID:	HZ-MW-19:W					
Laboratory ID:	10-152-05					
Diesel Range Organics	0.37	0.22	NWTPH-Dx	10-15-20	10-15-20	N
Lube Oil Range Organics	2.1	0.22	NWTPH-Dx	10-15-20	10-15-20	.,
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	115	50-150				
Oliver ID	DI MIN OD M					
Client ID:	BLMW-8R:W					
Laboratory ID:	10-152-07					
Diesel Range Organics	ND	0.22	NWTPH-Dx	10-15-20	10-15-20	
Lube Oil Range Organics	0.75	0.22	NWTPH-Dx	10-15-20	10-15-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				

Project: 82302-15.3

## DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Analyte	Result	PQL	Method	Date Prepared	Date Analvzed	Flags
METHOD BLANK		. 42		opurou	,a. y 20 a	90
Laboratory ID:	MB1015W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	10-15-20	10-15-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	10-15-20	10-15-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	84	50-150				

					Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE										
Laboratory ID:	SB10	15W1								
	ORIG	DUP								
Diesel Fuel #2	0.445	0.415	NA	NA		NA	NA	7	NA	
Lube Oil Range	ND	ND	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						105 101	50-150			

Project: 82302-15.3

## SULFATE ASTM D516-11

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	10-152-03					
Sulfate	140	100	ASTM D516-11	10-19-20	10-19-20	
Client ID:	HZ-MW-19:W					
Laboratory ID:	10-152-05					
Sulfate	30	10	ASTM D516-11	10-19-20	10-19-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	10-152-07					
Sulfate	20	5.0	ASTM D516-11	10-19-20	10-19-20	

Project: 82302-15.3

## SULFATE ASTM D516-11 QUALITY CONTROL

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1019W1					
Sulfate	ND	5.0	ASTM D516-11	10-19-20	10-19-20	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	10-09	99-01							
	ORIG	DUP							
Sulfate	ND	ND	NA	NA	NA	NA	NA	11	
MATRIX SPIKE									
Laboratory ID:	10-09	99-01							
	M	IS	MS		MS				
Sulfate	11	.4	10.0	ND	114	61-148	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB10	19W1							
	S	В	SB		SB				
Sulfate	10	).2	10.0	NA	102	86-116	NA	NA	

Project: 82302-15.3

### NITRATE (as Nitrogen) EPA 353.2

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	10-152-03					
Nitrate	0.10	0.050	EPA 353.2	10-14-20	10-14-20	
Client ID:	HZ-MW-19:W					
Laboratory ID:	10-152-05					
Nitrate	0.53	0.050	EPA 353.2	10-14-20	10-14-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	10-152-07					
Nitrate	ND	0.050	EPA 353.2	10-14-20	10-14-20	

Project: 82302-15.3

## **NITRATE** (as Nitrogen) **EPÀ 353.2 QUALITY CONTROL**

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1014W1					
Nitrate	ND	0.050	EPA 353.2	10-14-20	10-14-20	

				Source	Percent	Recovery		RPD	
Analyte	Re	sult	Spike Level	Result	Recovery	RPD	Limit	Flags	
DUPLICATE									
Laboratory ID:	10-1	52-05							
	ORIG	DUP							
Nitrate	0.529	0.536	NA	NA	NA	NA	1	15	
MATRIX SPIKE									
Laboratory ID:	10-1	52-05							
	M	1S	MS		MS				
Nitrate	2.	68	2.00	0.529	108	89-123	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB10	14W1							
	S	SB	SB	•	SB		•		
Nitrate	2.	06	2.00	NA	103	90-119	NA	NA	

Project: 82302-15.3

## DISSOLVED METALS EPA 200.8

011110. ug/2 (ppb)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HZ-MW-17:W					
Laboratory ID:	10-152-01					
Arsenic	ND	3.0	EPA 200.8	10-13-20	10-16-20	
Client ID:	HZ-MW-12:W					
Laboratory ID:	10-152-02					
Arsenic	3.7	3.0	EPA 200.8	10-13-20	10-16-20	
Client ID:	BC-16:W					
Laboratory ID:	10-152-03					
Arsenic	ND	3.0	EPA 200.8	10-13-20	10-16-20	
Manganese	4700	500	EPA 200.8	10-13-20	10-16-20	
Client ID:	HZ-MW-1:W					
Laboratory ID:	10-152-04					
Arsenic	ND	3.0	EPA 200.8	10-13-20	10-16-20	
Client ID:	HZ-MW-19:W					
Laboratory ID:	10-152-05					
Arsenic	ND	3.0	EPA 200.8	10-13-20	10-16-20	
Manganese	190	50	EPA 200.8	10-13-20	10-16-20	
Client ID:	HZ-MW-4:W					
Laboratory ID:	10-152-06					
Arsenic	ND	3.0	EPA 200.8	10-13-20	10-16-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	10-152-07					
Arsenic	21	3.0	EPA 200.8	10-13-20	10-16-20	
Manganese	2600	250	EPA 200.8	10-13-20	10-16-20	

Project: 82302-15.3

DISSOLVED METALS EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1013F1					
Arsenic	ND	3.0	EPA 200.8	10-13-20	10-16-20	
Manganese	ND	10	EPA 200.8	10-13-20	10-16-20	

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	10-1	52-05									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA			NA	NA	NA	20	
Manganese	193	181	NA	NA			NA	NA	6	20	
MATRIX SPIKES											
Laboratory ID:	10-1	52-05									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	77.6	81.2	80.0	80.0	ND	97	102	75-125	5	20	
Manganese	563	567	400	400	193	93	94	75-125	1	20	

Project: 82302-15.3

## TOTAL ARSENIC EPA 200.8

J (11 /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HZ-MW-17:W					
Laboratory ID:	10-152-01					
Arsenic	ND	3.3	EPA 200.8	10-16-20	10-16-20	
Client ID:	HZ-MW-12:W					
Laboratory ID:	10-152-02					
Arsenic	3.6	3.3	EPA 200.8	10-16-20	10-16-20	
Client ID:	BC-16:W					
Laboratory ID:	10-152-03					
Arsenic	ND	3.3	EPA 200.8	10-16-20	10-16-20	
Client ID:	HZ-MW-1:W					
Laboratory ID:	10-152-04					
Arsenic	ND	3.3	EPA 200.8	10-16-20	10-16-20	
Olicard ID.	117 888/ 40-38/					
Client ID:	HZ-MW-19:W					
Laboratory ID:	10-152-05	2.2	EDA 200 0	40.40.00	10.10.00	
Arsenic	ND	3.3	EPA 200.8	10-16-20	10-16-20	
Client ID:	HZ-MW-4:W					
Laboratory ID:	10-152-06					
Arsenic	9.2	3.3	EPA 200.8	10-16-20	10-16-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	10-152-07					
Arsenic	84	3.3	EPA 200.8	10-16-20	10-16-20	

Project: 82302-15.3

## TOTAL ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1016WM1					
Arsenic	ND	3.3	EPA 200.8	10-16-20	10-16-20	

Analyte	Res	sult	Spike	Level	Source Result		rcent overy	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE			Opino		rtooun		o (o. y				90
Laboratory ID:	10-07	75-07									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA		١	NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	10-07	75-07									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	114	121	111	111	ND	102	109	75-125	6	20	

Project: 82302-15.3

### DISSOLVED GASES RSK 175

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	10-152-03					
Methane	6700	42	RSK 175	10-16-20	10-16-20	
Client ID:	HZ-MW-19:W					
Laboratory ID:	10-152-05					
Methane	6.1	0.55	RSK 175	10-16-20	10-16-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	10-152-07					
Methane	2900	17	RSK 175	10-16-20	10-16-20	

Project: 82302-15.3

## DISSOLVED GASES RSK 175 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1016W1					
Methane	ND	0.55	RSK 175	10-16-20	10-16-20	

Analyte	Re	sult	Spike	Level		cent overy	Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANK										
Laboratory ID:	SB10	16W1								
	SB	SBD	SB	SBD	SB	SBD				
Methane	24.8	24.0	22.1	22.1	112	109	75-125	3	25	

Project: 82302-15.3

## TOTAL ALKALINITY SM 2320B

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	10-152-03					
Total Alkalinity	510	2.0	SM 2320B	10-20-20	10-20-20	_
Client ID:	HZ-MW-19:W					
Laboratory ID:	10-152-05					
Total Alkalinity	120	2.0	SM 2320B	10-20-20	10-20-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	10-152-07					
Total Alkalinity	390	2.0	SM 2320B	10-20-20	10-20-20	

Project: 82302-15.3

### TOTAL ALKALINITY SM 2320B QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						_
Laboratory ID:	MB1020W1					
Total Alkalinity	ND	2.0	SM 2320B	10-20-20	10-20-20	_

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	10-1	58-01							
	ORIG	DUP							
Total Alkalinity	88.0	88.0	NA	NA	NA	NA	0	10	
SPIKE BLANK									
Laboratory ID:	SB10	20W1							
-	S	В	SB	•	SB		•	•	
Total Alkalinity	96	5.0	100	NA	96	89-110	NA	NA	



### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Turnaround Request (in working days)

Laboratory Number:

-

Page

of

	1000	
		- 8
		100
	400	Bh.
	C	
	1000	89
	-	100
		-
	_	_a
		199
	-	-
		9
	-	-0
		8.1
	400	1
		$\neg$
	600	100
	_	_
		100
	-	NO.
	-	_
	0.0	PR .
	-	a.
	_	<u></u>
	gam.	
	-	
		-0
	1	d'
	=	
	-	₽.
	-	_
	_	
- 1	1	
- 0	4	in the
		-

Reviev	Received	Reling	Received	Reling	Received	Relinquished					7	6	S	工	W	4		ab ID	1	Project	Project Name:	W.	大 ス の に に に の に の に の に の に の に の に に に に に に に に に に に に に	
Reviewed/Date	ved	Relinquished	yed	Relinquished	10 there Claw	uished	Signature				BLMW-8R:W	HZ-MW-4:W	HZ-MW-19: W	HZ-MW-1:W	BC-16:N	HZ-MW-12:W	H2-NW-17:W	Sample Identification	SMU Kare	JEFF JOSEN	other toto	1202-15.3	The ENMNONMENTAL	Filone: (+29) 603-3601 - WWW.Ollsite-ellv.Colli
											10/12	10/12	10/12	10/12	10/15	10/13	10/13	Date Sampled	[		X Sta	2 Days	Sa	
Reviewed/Date				-	0	Kane donironmental	Company				1536	1430	1120	0Hb	10/13 1355	8 1240	5401	Time d Sampled	(other)		Standard (7 Days)	Jays	Same Day	(Check One)
ate					35	MANN					MS	GW	GW	GW MB	BW B	RW B	GW.	Matrix				3 Days	1 Day	2
						3					00	7	$\infty$	M	00	2	7	Numb	er of C	ontaine	ers			
					_	F													H-HCI					
					0	0	Date												H-Gx/I	BTEX				
					M	-												NWTF						
						W					$\times$		×		$\times$					Acid	/ SG Cle	ean-up	)	
					N	U	Time												es 826		00000			
					F	7					_									Volatile				
Chro	Data				0	2	Com											Semiv	olatiles	8270D/ PAHs)				
mato	Data Package:					2	iment													SIM (lov	v-level)			
gram	(age:						s/Spe												8082A					
Chromatograms with final report □	Star				:-	Tab tite	Comments/Special Instructions													ne Pesti			D /OIL	_
final	Standard					7	ıstruc													horus F Acid Her				_
repor					9	7	tions				-								RCRA N		Dicides	0131A		4
	Level																		VTCA N					$\dashv$
Electro		6.1 6.5 6.5									×		~		~			TONP	Melala	12.	N-f	74	2	$\dashv$
nic Da	Lev										X		$\frac{1}{\sqrt{2}}$		2					0	1664A	NI	Hat	P
ıta De	Level IV										X	×	X	×	×	×	×			N		A (	ira	7
Electronic Data Deliverables (EDDs)											X	><	X	X	×	X	X	+	oto	U	AS	-, -		7
les (El											×		X		X			d	issi	vso	ed	MI	7	
DDs)								E		4	X	W	×	林	×			W	He	ral	le			
							1000	(	~		h .	100	1	MAR BAR				0/-1/-1	-Dans	-11	· ~ 4 :		3	- 1



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 16, 2020

Jeff Jensen Kane Environmental, Inc. 4015 13th Avenue West Seattle, WA 98119

Re: Analytical Data for Project 82302-14.3

Laboratory Reference No. 2010-093

### Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 8, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 



Project: 82302-14.3

### **Case Narrative**

Samples were collected on October 8, 2020 and received by the laboratory on October 8, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project: 82302-14.3

## DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BLMW-11:W					
Laboratory ID:	10-093-01					
Diesel Range Organics	ND	0.23	NWTPH-Dx	10-9-20	10-9-20	
Lube Oil Range Organics	0.57	0.23	NWTPH-Dx	10-9-20	10-9-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	90	50-150				
Client ID:	BLMW-12:W					
Laboratory ID:	10-093-02					
Diesel Range Organics	ND	0.23	NWTPH-Dx	10-9-20	10-9-20	
Lube Oil Range Organics	0.78	0.23	NWTPH-Dx	10-9-20	10-9-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	90	50-150				
Client ID:	MW-1:W					
Laboratory ID:	10-093-03					
Diesel Range Organics	ND	0.22	NWTPH-Dx	10-9-20	10-9-20	
Lube Oil Range Organics	0.53	0.22	NWTPH-Dx	10-9-20	10-9-20	
Surrogate:	Percent Recovery	Control Limits			·	·
o-Terphenyl	94	50-150				

Project: 82302-14.3

## DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1009W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	10-9-20	10-9-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	10-9-20	10-9-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	101	50-150				

					Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE										
Laboratory ID:	SB10	09W1								
	ORIG	DUP								
Diesel Fuel #2	0.525	0.349	NA	NA		NA	NA	40	NA	
Lube Oil Range	ND	ND	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						100 95	50-150			

Project: 82302-14.3

## TOTAL ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BLMW-11:W					
Laboratory ID:	10-093-01					
Arsenic	28	3.3	EPA 200.8	10-9-20	10-9-20	
Client ID:	BLMW-12:W					
Laboratory ID:	10-093-02					
Arsenic	22	3.3	EPA 200.8	10-9-20	10-9-20	
Client ID:	MW-1:W					
Laboratory ID:	10-093-03					
Arsenic	ND	3.3	EPA 200.8	10-9-20	10-9-20	

Project: 82302-14.3

### TOTAL ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1009WM1					
Arsenic	ND	3.3	EPA 200.8	10-9-20	10-9-20	

Analyte	Res	sult	Spike	Level	Source Result		rcent overy	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE							<i>y</i>				
Laboratory ID:	10-08	85-01									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	10-08	85-01									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	118	120	111	111	ND	106	109	75-125	2	20	

Project: 82302-14.3

### DISSOLVED ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BLMW-11:W					
Laboratory ID:	10-093-01					
Arsenic	15	3.0	EPA 200.8	10-8-20	10-9-20	
Client ID:	BLMW-12:W					
Laboratory ID:	10-093-02					
Arsenic	20	3.0	EPA 200.8	10-8-20	10-9-20	
Client ID:	MW-1:W					
Laboratory ID:	10-093-03					
Arsenic	ND	3.0	EPA 200.8	10-8-20	10-9-20	

Project: 82302-14.3

### DISSOLVED ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1008F1					
Arsenic	ND	3.0	EPA 200.8	10-8-20	10-9-20	•

Analyte	Res	sult	Spike	Level	Source Result		rcent	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											_
Laboratory ID:	10-08	35-01									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	10-08	35-01									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	77.6	76.4	80.0	80.0	ND	97	96	75-125	2	20	



### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





# **Chain of Custody**

Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished	Signature			3 MW-1:W	3 BLMW-12:W	- BLMW-11:W	Lab ID Sample Identification	Sampled by: Jeff Jensen	Project Manager: Jeff Jensen	Project Name: Bothwill Landing	82302-14.3	Company: Kane Environment Number:	14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com
					v CTANN	+	)					Ĭo		,	5 ,			until	nsite-env.com
Reviewed/Date			4-	(	0,0	Kare	Company			1345	11160	10/8/20 0940	Date Time Sampled Sampled	(other)		Standard (7 Days)	☐ 2 Days		(Check One)
					ST					4	0	6W 6	Matrix Numb		ontaine	ers	3 Days	1 Day	
					10/8/20	10/4/20	Date 1			*	*	*		H-Gx	Acid	/ SG CI	ean-up	)	
0	D				11148	1448	Time C					,,	Haloge EDB E	enated PA 801	Volatiles 1 (Wate	rs Only			
hromatograms with	Data Package: Sta				Lab Filler		Comments/Special Instructions						PAHs PCBs Organ	8270D/ 8082A ochlorii	el PAHs) SIM (lov	v-level) cides 8			
Standard 🖟 Level				Herr		Instructions						Chlorin Total F Total N TCLP	nated A RCRA M MTCA N Metals	cid Her	bicides		OD/SIM		
Electronic Data Deliverables (EDDs)	Level IV									×	*	×			A/		u nic		_
7													% Moi	sture					

Page of



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 20, 2020

Jeff Jensen Kane Environmental, Inc. 4015 13th Avenue West Seattle, WA 98119

Re: Analytical Data for Project 82302-13.3

Laboratory Reference No. 2010-116

### Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 9, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 82302-13.3

### **Case Narrative**

Samples were collected on October 9, 2020 and received by the laboratory on October 9, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project: 82302-13.3

# DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BPMW-2R:W					
Laboratory ID:	10-116-01					
Diesel Range Organics	ND	0.22	NWTPH-Dx	10-12-20	10-13-20	
Lube Oil Range Organics	0.27	0.22	NWTPH-Dx	10-12-20	10-13-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	102	50-150				
Client ID:	BPMW-6:W					
Laboratory ID:	10-116-02					
Diesel Range Organics	ND	0.24	NWTPH-Dx	10-12-20	10-13-20	
Lube Oil Range Organics	0.39	0.24	NWTPH-Dx	10-12-20	10-13-20	
Surrogate:	Percent Recovery	Control Limits				·
o-Terphenyl	54	50-150				

Project: 82302-13.3

### DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1012W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	10-12-20	10-12-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	10-12-20	10-12-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	84	50-150				

					Source	Percer	nt Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Recove	ery Limits	RPD	Limit	Flags
DUPLICATE										
Laboratory ID:	10-12	20-19								
	ORIG	DUP								
Diesel Range	ND	ND	NA	NA		NA	NA	NA	NA	
Lube Oil Range	ND	ND	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						94	93 50-150			

Project: 82302-13.3

### SULFATE ASTM D516-11

Matrix: Water Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	BPMW-2R:W			•	•	
Laboratory ID:	10-116-01					
Sulfate	ND	5.0	ASTM D516-11	10-19-20	10-19-20	
Client ID:	BPMW-6:W					
Laboratory ID:	10-116-02					
Sulfate	8.3	5.0	ASTM D516-11	10-19-20	10-19-20	

Project: 82302-13.3

### SULFATE ASTM D516-11 QUALITY CONTROL

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1019W1					
Sulfate	ND	5.0	ASTM D516-11	10-19-20	10-19-20	

				Source	Percent	Recovery		RPD	
Analyte	Resi	ult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	10-099	9-01							
	ORIG	DUP							
Sulfate	ND	ND	NA	NA	NA	NA	NA	11	
MATRIX SPIKE									
Laboratory ID:	10-099	9-01							
	MS	3	MS		MS				
Sulfate	11.	4	10.0	ND	114	61-148	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB101	9W1							
	SE	3	SB		SB			•	
Sulfate	10.	2	10.0	NA	102	86-116	NA	NA	

Project: 82302-13.3

### NITRATE (as Nitrogen) EPA 353.2

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BPMW-2R:W					
Laboratory ID:	10-116-01					
Nitrate	ND	0.050	EPA 353.2	10-9-20	10-9-20	
Client ID:	BPMW-6:W					
Laboratory ID:	10-116-02					
Nitrate	12	0.25	EPA 353.2	10-9-20	10-9-20	•

Project: 82302-13.3

### NITRATE (as Nitrogen) EPA 353.2 QUALITY CONTROL

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1009W1					
Nitrate	ND	0.050	EPA 353.2	10-9-20	10-9-20	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	10-09	99-01							
	ORIG	DUP							
Nitrate	ND	ND	NA	NA	NA	NA	NA	15	
MATRIX SPIKE									
Laboratory ID:	10-09	99-01							
	М	S	MS		MS				
Nitrate	2.	14	2.00	ND	107	89-123	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB10	09W1							
	S	В	SB		SB				
Nitrate	2.	19	2.00	NA	110	90-119	NA	NA	

Project: 82302-13.3

### DISSOLVED METALS EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BPMW-2R:W					
Laboratory ID:	10-116-01					
Manganese	140	25	EPA 200.8	10-9-20	10-16-20	
Client ID:	BPMW-6:W					
Laboratory ID:	10-116-02					
Arsenic	10	3.0	EPA 200.8	10-9-20	10-16-20	
Manganese	110	25	EPA 200.8	10-9-20	10-16-20	
Client ID:	BC-11R:W					
Laboratory ID:	10-116-03					
Arsenic	ND	3.0	EPA 200.8	10-9-20	10-16-20	
Client ID:	BPMW-1:W					
Laboratory ID:	10-116-04					
Arsenic	16	3.0	EPA 200.8	10-9-20	10-16-20	

Project: 82302-13.3

## DISSOLVED METALS EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1009F1					
Arsenic	ND	3.0	EPA 200.8	10-9-20	10-16-20	
Manganese	ND	10	EPA 200.8	10-9-20	10-16-20	

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	10-1	52-05									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA			NA	NA	NA	20	
Manganese	193	181	NA	NA			NA	NA	6	20	
MATRIX SPIKES											
Laboratory ID:	10-1	52-05									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	77.6	81.2	80.0	80.0	ND	97	102	75-125	5	20	
Manganese	563	567	400	400	193	93	94	75-125	1	20	

Project: 82302-13.3

# TOTAL ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BPMW-6:W					
Laboratory ID:	10-116-02					
Arsenic	11	3.3	EPA 200.8	10-16-20	10-16-20	
Client ID:	BC-11R:W					
Laboratory ID:	10-116-03					
Arsenic	ND	3.3	EPA 200.8	10-16-20	10-16-20	
Client ID:	BPMW-1:W					
Laboratory ID:	10-116-04					
Arsenic	18	3.3	EPA 200.8	10-16-20	10-16-20	

Project: 82302-13.3

### TOTAL ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1016WM1					
Arsenic	ND	3.3	EPA 200.8	10-16-20	10-16-20	

Analyte	Res	sult	Spike	Level	Source Result		rcent overy	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE			Opino		rtooun		o (o. y				90
Laboratory ID:	10-07	75-07									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA		١	NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	10-07	75-07									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	114	121	111	111	ND	102	109	75-125	6	20	

Project: 82302-13.3

### DISSOLVED GASES RSK 175

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BPMW-2R:W					
Laboratory ID:	10-116-01					
Methane	1100	8.3	RSK 175	10-16-20	10-16-20	
Client ID:	BPMW-6:W					
Laboratory ID:	10-116-02					
Methane	9500	55	RSK 175	10-16-20	10-16-20	•

Project: 82302-13.3

### DISSOLVED GASES RSK 175 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1016W1					
Methane	ND	0.55	RSK 175	10-16-20	10-16-20	-

					Per	cent	Recovery		RPD	
Analyte	Re	Result		Level	Reco	Recovery		RPD	Limit	Flags
SPIKE BLANK										
Laboratory ID:	SB1016W1									
	SB	SBD	SB	SBD	SB	SBD				
Methane	24.8	24.0	22.1	22.1	112	109	75-125	3	25	

Project: 82302-13.3

# TOTAL ALKALINITY SM 2320B

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BPMW-2R:W					
Laboratory ID:	10-116-01					
Total Alkalinity	110	2.0	SM 2320B	10-13-20	10-13-20	_
Client ID:	BPMW-6:W					
Laboratory ID:	10-116-02					
Total Alkalinity	80	2.0	SM 2320B	10-13-20	10-13-20	

Project: 82302-13.3

### TOTAL ALKALINITY SM 2320B QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						·
Laboratory ID:	MB1013W1					
Total Alkalinity	ND	2.0	SM 2320B	10-13-20	10-13-20	

A I			0.11.1	Source	Percent	Recovery	222	RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	10-1	16-01							
	ORIG	DUP							
Total Alkalinity	112	112	NA	NA	NA	NA	0	10	
SPIKE BLANK									
Laboratory ID:	SB1013W1								
	S	В	SB	•	SB			•	
Total Alkalinity	94	l.0	100	NA	94	89-110	NA	NA	



### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Turnar	
ound Request	Gnain
	1 of Gustod
	CO
	9
2	
)	
4	
4	
)	
	70
	age_
-1	1

Reviewed/Date	Received	Relinquished	Received	Relinquished	Received Markey Cistur	Relinquished	Signature				4 BPMW-1:W	D BC-IIR W	BPMW-6:W	BPMW-ZR:W	Lab ID Sample Identification	Sampled by: Left Jensen	25	Project Manager Bothell Paint	82302-13.3	Project Number	Company: (425) 883-3881 • www.onsite-env.com	14648 NE 95th Street • Redmond, WA 98052
Reviewed/Date						Ka	Company				1335	1215	lono	10/9/20 0935	Date Time Sampled Sampled	(other)		Standard (7 Days)	2 Days	Same Day	(Check One)	(in working days)
/Date					350	Kane					4	2	0	5 6W 7	Matrix		ontain		3 Days	1 Day	ine)	days)
					109/20 1505	10/9/20 1505	Date Time						×	×	NWTP NWTP Volatile Haloge	H-Gx H-Dx ( es 8260 enated	BTEX Acid OC Volatile	/ SG Cl	)	)		Laboratory Number:
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ★	Data Package: Standard 🥦 Level III □ Level IV □			4			Comments/Special Instructions				× ×	× ×	× × × × ×	× × ×	Semiv. (with lot PAHs & PCBs Organo Chlorir Total F Total M TOLP I Diss	olatiles ww-levevenesses ww-levevenesses ww-levevenesses ww-levevenesses www-levevenesses www. Www. Www. Www. Www. Www. Www. Www	8270D 8270D 81 PAHs SIM (loone Pest sicid Held Hetals Pest sicid Held Sim (loone Pest sicil Held Sim (	/SIM	081B es 827( 8151A			#: 1U-116
A													×	×	% Moi			alred	Μ			