



City of Bothell™

April 1, 2019

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

Re: Quarterly Progress Report for period ending March 2019

Site Name: **BOTHELL SERVICE CENTER/ SIMON & SON**
Site Address: 18107 Bothell Way NE, Bothell WA 98011
Parcel Numbers: 237420-0065
Facility/Site No.: 33215922
Consent Decree No.: 18-2-02852-3 SEA (Effective date February 2, 2018)

Reporting Period: January 1 - March 31, 2019

Summary:

City of Bothell (PLP) continues to make progress on work being performed for the Bothell Service Center site (BSC), in accordance with the Consent Decree (CD) with the Department of Ecology.

Per the requirements of Section XI of the Consent Decree "Progress Reports", the attached quarterly progress report has been prepared for the three-month period preceding this submittal to satisfy the terms described in the Consent Decree.

During this period much of the work has been geared towards the continued operation of the ERH system, monitoring well sampling and starting the bio-remediation.

The attached progress report provides an update on work accomplished during the period ending March 31, 2019 for the Site. Please contact me if you have any questions.

Sincerely,

Nduta Mbuthia

Nduta Mbuthia
Project Coordinator, City of Bothell

Public Works Department
18415 101st Ave NE
Bothell, WA 98011
425.806.6800
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City of Bothell™

Reporting Period: January 1 - March 31, 2019
Date submitted (electronically): April 1, 2019
Date mailed (certified w/return receipt): April 2019
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 this quarter

The following activities have occurred this quarter -

- i. Demobilization of the Electrical Resistance Heating and decommissioning of the electrodes. The system operated from May 29, 2018 until shut-down on November 20, 2018, once results started to indicate that mass removal had dropped to a constant level.
- ii. Installation and operation of additional injection/extraction well pairs for the bio-remediation system started following cool down of the ground after ERH shut-down.
- iii. Groundwater sampling was conducted in February/March; sampling data was analyzed and tabulated. See attached.

B. Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests

There have been no deviations this quarter.

C. Description of all deviations from the CAP (Exhibit C) and Schedule (Exhibit D) during the current quarter and any planned deviations in the upcoming quarter

There has been no deviation from the schedule this quarter. During past reporting periods, it was noted that there was a delay specifically with regard to item C3 "Install and begin operation of the bio-remediation-groundwater recirculation/SVE systems". The CD Exhibit D (Schedule) states that this deliverable was due within two months of the effective date of the CD, i.e. April 2018. However, two of the bio-remediation wells were installed in July and a portion of the recirculation system was in operation by late August 2018. Additional bio-remediation well pairs were installed following cool down of the ground after ERH shut-down. The SVE piping that was used during ERH was left in operation to continue with vapor extraction in one section of the site during ground cool down. A layout of the expanded SVE system was sent to Ecology and the system subsequently installed in March. In future, supplemental wells may be added as the need arises; Ecology's site manager will be consulted prior to doing so.

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

Not applicable

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

See attached.

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

Same as the schedule

Attachments

Documentation Compliance Letter, updated

Exhibit D from the CD

Kane Post-ERH Sampling Report, March 28, 2019



SEATTLE • PHOENIX

MEMORANDUM

March 28, 2019

TO: Jerome B. Cruz, Ph.D. and Ching Pi Wang
Washington State Department of Ecology
Toxics Cleanup Program, Northwest Regional Office
3190 - 160th SE Bellevue, WA 98008

FROM: John Kane

SUBJECT: Post-ERH Groundwater Sampling – Select Groundwater Wells
Bothell Service Center Simon & Sons (BSCSS)
Bothell, WA 98011

This groundwater sampling task was completed as requested by Jerome Cruz and Ching Pi Wang at Ecology NWRO. Kane Environmental collected a total of 14 groundwater samples from existing groundwater monitoring wells within and in proximity to the Electrical Resistance Heating treatment area at the BSCSS site. Figure 1 shows the location of the 14 wells sampled outlined in green boxes. The analytical data is provided in the attached table. For comparison purposes, we included only the most recent previous groundwater sampling round of the same wells from November/December 2018.

The purpose of this memorandum is to provide an overview of similar or decreasing PCE analytical results between the two sampling events, not a detailed review of analytical data results. Please note that PCE breakdown products are also presented in the Table 1, but not summarized in this memorandum. This recent sampling serves as a baseline for post-ERH treatment for the wells within and in the vicinity of the ERH treatment area.

Shallow Wells

6 shallow wells were sampled.

3 wells were either non-detect or below MTCA PCE cleanup level (CUL)
1 well decreased in PCE concentration
2 wells remained about the same PCE concentration (MW-4 & MW-40).

Intermediate Wells

3 intermediate wells were sampled.

1 well decreased in PCE concentration
2 wells were non-detect for PCE

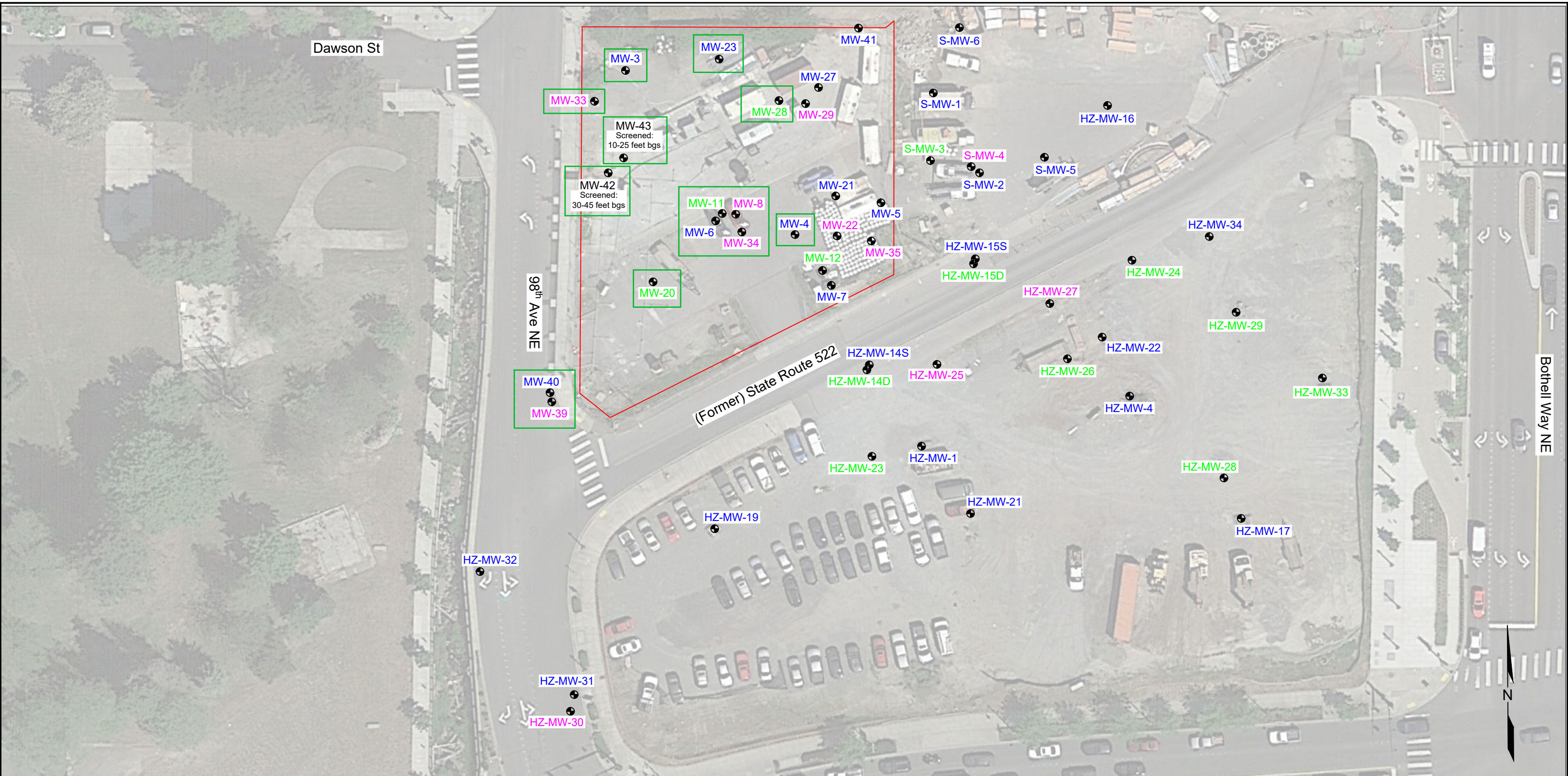
Deep Wells

5 deep wells were sampled.

Note: All 5 wells were either non-detect or below the PCE CUL and below breakdown product CULs.

cc: Nduta Mbutia, City of Bothell

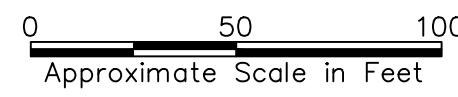
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Mailing: PO Box 31936 Seattle WA 98103
Office (206) 691 0476 • Fax (206) 675 0650
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Aerial Photo Source: Google Earth Pro
Aerial Photo Date: May, 2018

LEGEND

- BSCA Property Boundary
- MW-1 Monitoring Well, Shallow (5-25ft)
- MW-2 Monitoring Well, Intermediate (25-35 ft)
- MW-3 Monitoring Well, Deep (35-55 ft)
- MW-4 New Monitoring Well, Screened as Noted
- Wells sampled in February-March, 2019



**Table 1
Bothell Service Center Simon Son
ERH Area Groundwater Analytical Results**

Well	Well Type and Water Bearing Zone	Screened Depth, (ft bgs)	Date Sampled	Depth to Water (ft below TOC)	Sampled By	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	(cis) 1,2-DCE (µg/L)	(trans) 1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	pH (units)	Conductivity (µS)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Dissolved Iron (ug/L)	Sulfate (mg/L)	Chloride (mg/L)	Ammonia as N (mg/L)	Methane (mg/L)	Ethane (mg/L)	Ethene (mg/L)	Total Organic Carbon (mg/L)	
MW-3	Shallow	5 to 20	12/5/18	7.93	Kane	<1.00	<0.50	<1.0	<1.00	<1.0	<0.20	5.90	62.5	38.7	6.94	<100	3.18	2.79	<0.100	<0.00863	<0.0162	<0.0151	2.7	
			2/12/19	7.79	Kane	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<0.20	6.03	57.5	8.2	141.5	<100	4.16	3	<0.10	<0.00863	<0.0162	<0.0151	2.36
MW-4	Shallow	10 to 25	11/30/18	7.67	Kane	4,370	373	<50	1,720	<50	<10	6.35	347.4	0.12	50	604	18.8	16	<0.100	0.721	<0.162	<0.151	3.1	
			2/22/19	7.23	Kane	4,080	343	<1.0	1,790	10.7	9.72	6.49	311.5	0.22	19.9	<100	16.2	16.5	<0.10	4.12	<0.0162	<0.0151	1.94	
MW-6	Shallow	10 to 25	12/21/18	8.79	Kane	2,670	1,000	<1.0	2,560	<1.0	25.5	5.96	378	0.23	-65.4	5,260	8.68	11.2	0.413	0.0808	<0.162	<0.151	14.3	
			2/22/19	7.79	Kane	1,820	568	<1.0	1,040	14.2	14	6.16	295.1	0.15	-52	5,800	13	7.69	<0.10	0.706	<0.0162	<0.0151	13.2	
MW-8	Deep	45 to 50	12/20/18	10.05	Kane	14.5	4.37	<1.0	9.38	<1.0	<0.20	6.13	197.6	0.28	30	<100	4.13	6.53	<0.100	<0.00863	<0.0162	<0.0151	1.66	
			2/22/19	8.75	Kane	4.98	2.9	<1.0	7.33	<1.0	<0.20	6.28	183.2	0.24	65	<100	4.95	7.14	<0.10	0.0173	<0.0162	<0.0151	1.82	
MW-11	Intermediate	25 to 33	12/20/18	8.56	Kane	41	11.5	<1.0	4.92	<1.0	<0.20	5.72	287	0.16	14.3	611	37.4	13.5	<0.100	0.109	<0.162	<0.151	8.99	
			2/21/19	7.9	Kane	16.9	14.6	<1.0	9.58	<1.0	<0.20	5.96	316.3	0.16	-70	1,240	10.3	14.4	<0.10	0.87	<0.0162	<0.0151	23.7	
MW-20	Intermediate	25 to 30	12/20/18	7.5	Kane	32	879	<1.0	552	<1.0	2.23	5.72	264	0.05	-4.4	3,140	2.56	8.88	1.54	0.0446	<0.0162	<0.0151	95.4	
			3/14/19	7.55	Kane	<0.841	136	<10	163	84.3	<2.0	6	219.3	0.2	68.3	1,460	0.348	7.8	1.07	0.0463	<0.0162	<0.0151	45.3	
MW-23	Shallow	6 to 16	12/5/18	8.70	Kane	1.05	<0.50	<1.0	<1.00	<1.0	<0.20	5.65	112	1.24	49.8	124	10.3	2.16	<0.100	0.0854	<0.0162	<0.0151	2.4	
			2/12/19	8.18	Kane	2.11	<0.50	<1.0	<1.0	<1.0	<1.0	<0.20	5.34	75.1	5.16	128.7	<100	6.02	1.46	<0.10	<0.00863	<0.0162	<0.0151	1.17
MW-28	Intermediate	25 to 35	12/12/18	10.01	Kane	<1.00	<0.50	<1.0	<1.00	<1.0	<0.20	5.70	130	1.78	48.7	<100	11.8	8.06	<0.100	<0.00863	<0.0162	<0.0151	0.69	
			2/19/19	9.07	Kane	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<0.20	5.73	108.6	2.56	202.9	<100	8.78	5.65	<0.10	<0.00863	<0.0162	<0.0151	0.618
MW-33	Deep	40 to 50	12/5/18	10.4	Kane	<1.00	<0.50	<1.0	<1.00	<1.0	<0.20	6.13	174	0.07	43.5	<100	10.6	6.74	<0.100	<0.00863	<0.0162	<0.0151	3.01	
			2/19/19	9.17	Kane	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<0.20	6.35	164.3	0.18	204.8	<100	11.5	6.45	<0.10	<0.00863	<0.0162	<0.0151	1.44
MW-34	Deep	40 to 50	12/11/18	8.5	Kane	<1.00	<0.50	<1.0	<1.00	<1.0	<0.20	5.92	285	0.09	44.3	561	13.5	39	<0.100	0.0103	<0.0162	<0.0151	1.2	
			2/21/19	7.59	Kane	1.29	<0.50	<1.0	1.52	<1.0	<0.20	5.95	255.8	0.22	91.9	367	14.6	32.7	<0.10	0.0274	<0.0162	<0.0151	10.49	
MW-39	Deep	40 to 50	12/17/18	6.33	Kane	2.32	2.62	<1.0	6.81	<1.0	<0.20	6.39	225.4	0.15	-3.5	4,580	2.13	3.45	0.563	0.364	<0.0162	<0.0151	3.36	
			3/13/19	6.32	Kane	<1.0	<0.50	<1.0	1.99	<1.0	<0.20	6.4	205.6	0.09	-44.3	4,380	<0.30	3.76	0.445	0.552	<0.0162	<0.0151	4.15	
MW-40	Shallow	15 to 25	12/17/18	6.28	Kane	212	46	<1.0	56.7	<1.0	<0.20	6.43	69.2	2.39	52.6	<100	1.55	0.586	<0.100	<0.00863	<0.0162	<0.0151	1.11	
			3/13/19	6.29	Kane	213	146	1.49	746	1.3	<0.20	6.08	63.3	1.33	82.2	<100	0.819	2.08	<0.10	0.00959	<0.0162	<0.0151	2.03	
MW-42	Deep	30 to 45	1/3/19	10.21	Kane	<1.0	<0.50	<1.0	<1.0	<1.0	<0.2													
			3/18/19	8.79	Kane	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<0.20	6.63	155.4	0.06	76.4	821	1.99	3.57	0.266	0.177	<0.0162	<0.0151	1.9
MW-43	Shallow	10 to 25	1/2/19	10.4	Kane	225	32	5.95	7.16	3.24	<0.2													
			3/18/19	8.42	Kane	2	<0.50	<1.0	1.2	<1.0	<0.20	6.61	183.6	0.1	-4.6	286	14.4	3.34	<0.10	0.0336	<0.0162	<0.0151	8.25	
MTCA Method A Cleanup Level ¹						5.0	5.0				0.2													
MTCA Method B Cleanup Level ²								400	16	160							11,200							

Notes:

PCE – Tetrachloroethene

TCE – Trichloroethene

1,1-DCE - 1,1-Dichloroethene

(cis) 1,2-DCE - (cis) 1,2-Dichloroethene

Blank – Not analyzed or not available

Bold – Analyte detected

Bold / highlighted – Analyte exceeds MTCA A/B cleanup level

< – Analyte not detected at listed reporting limit

Italicized - Reporting limit exceeds MTCA A/B cleanup level

ug/L – micrograms per liter

1 – Table 720-1, WAC 173-340-900

2 – WA Dept. of Ecology CLARC ground water data table

(<https://fortress.wa.gov/ecy/clarc/FocusSheets/Groundwater%20Methods%20B%20and%20A%20and%20ARARs.pdf>)

NA – Not Applicable

From: [John Kane](#)
To: [Cruz, Jerome \(ECY\)](#); [Wang, Ching-Pi \(ECY\)](#)
Cc: [Nduta Mbuthia](#); [John Kane](#); [Jeff Jensen](#)
Subject: [EXTERNAL] Kane Environmental - Bothell Service Center Simon & Sons - Post ERH Groundwater Sampling results
Date: Thursday, March 28, 2019 10:36:15 AM
Attachments: [BSCSS Post ERH Wells Groundwater Sampling Memo 3-28-19.pdf](#)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

"

Jerome and Ching Pi:

Groundwater analytical results present in attached memorandum.

Thank you.

John

John Kane, CEO/President

Kane Environmental, Inc.

Environmental Issues. Business Solutions.

4015 13th Avenue West

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Seattle, WA | Phoenix, AZ | Nationwide Services

From: [John Kane](#)
To: [Cruz, Jerome \(ECY\)](#)
Cc: [John Kane](#); [Nduta Mbutia](#)
Subject: [EXTERNAL] Kane Environmental - Soil Vapor Extraction well installation
Date: Friday, January 18, 2019 1:49:06 PM
Attachments: [BSCSS - Figure 1 - Proposed SVE Well Locations.pdf](#)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

"

Jerome:

Proposed SVE locations are shown in the attached figure.

The SVE wells will not come in contact with groundwater. Groundwater ranges from approximately 8 feet below ground surface (bgs) on the BSCSS property to 5-7 feet bgs where the eastern-most SVE well row will be installed.

We are starting the SVE well drilling on Thursday, Jan 24. I sent an email to Noel Philip to request a variance for the SVE wells to see if we can complete them closer to the surface, about 1.5 feet below ground surface. I will let you know if he grants the variance or not.

Regards,

John

John Kane, CEO/President

Kane Environmental, Inc.

Environmental Issues. Business Solutions.

4015 13th Avenue West

Seattle, WA 98119

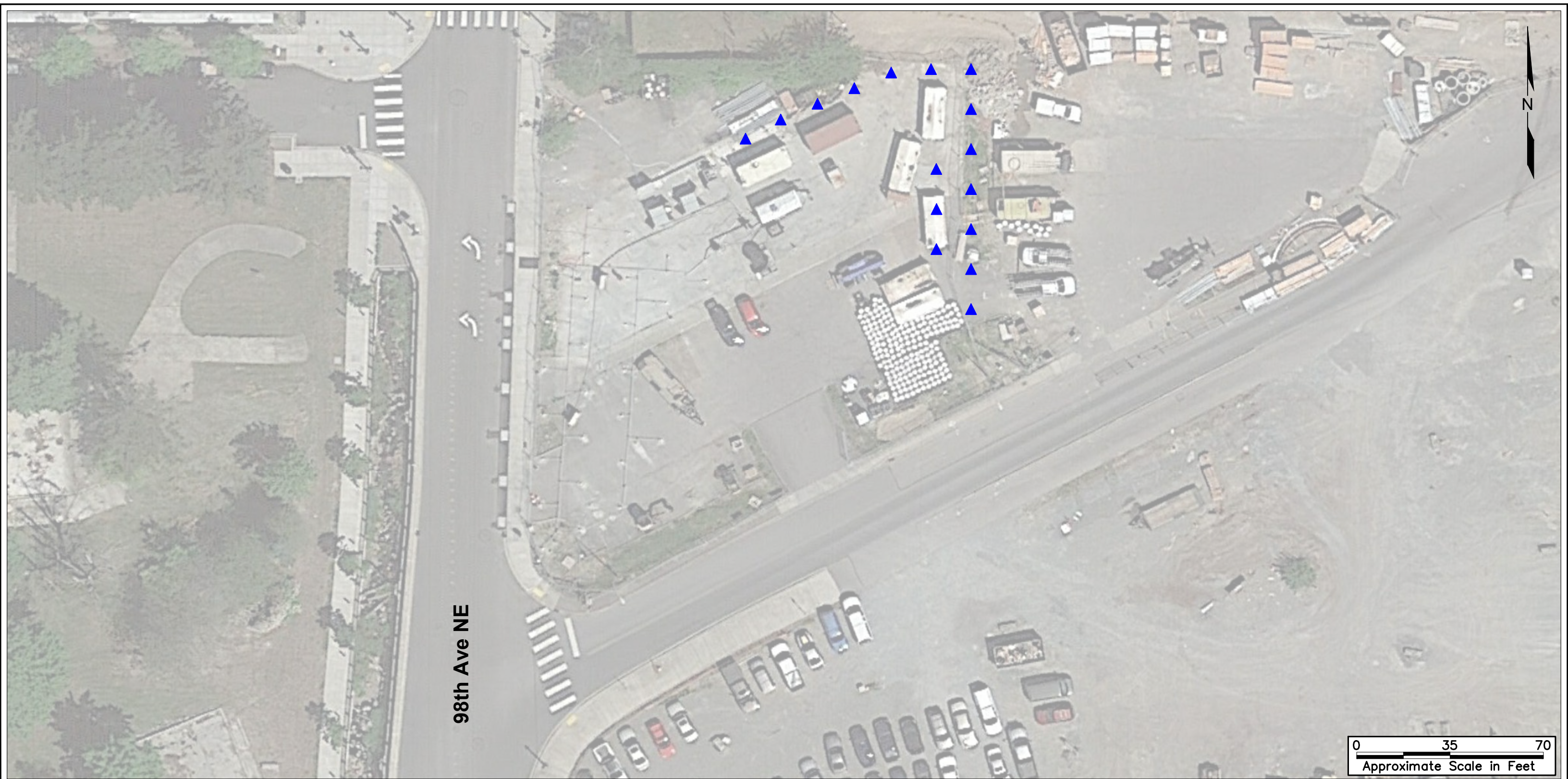
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LEGEND

▲ Proposed location of SVE well

Exhibit D
Site Schedule of Work and Deliverables

Deliverables		Due (Calendar Days)
A. Administrative		
A.1	Consent Decree entered by the King County Superior Court (Effective Date of the CD)	Within 5 days of the execution by the Parties
A.2	Notification of selected contractor name and qualifications	Within 5 days of the effective date of Consent Decree (A.1)
A.3	Progress Reports	Quarterly on the 10 th of the month beginning after the effective date of the Consent Decree (A.1)
A.4	Financial Assurances – submit cost estimate for Ecology review and approval	Within 60 days of the effective date of Consent Decree
A.5	Financial Assurances - provide proof of financial assurances	Within 60 days after Ecology approves cost estimate (A.4)
B. Design		
B.1	Draft Pre-Remedial Design (PRDI) Project Plans ²	Within 5 days of the effective date of Consent Decree (A.1)
B.2	Draft PRDI Data Report and Draft Engineering Design Report (EDR) ³	Within 5 days of Ecology approval of Final PRDI Project Plans (B.1)
B.3	Final PRDI Data Report and EDR Report	Within 5 days of receipt of Ecology's comments on the Draft PRDI Data and EDR Reports (B.2)
B.4	90 % Plans and Specs [per WAC 173-340-400(4)(b)]	Within 5 days of receipt of Ecology comments on Final EDR Report (B.3)
B.5	100 % Plans and Specs	Within 5 days of receipt of Ecology comments on 90 % plans and specifications (B.4)
C. Field Construction		
C.1	Complete Construction Procurement	Within 5 days of completion of the 100% plans and specifications (B.1)
C.2	ERH System installation	Within 2 months of the effective date of Consent Decree
	ERH Operation	Within 6 to 8 months of the effective date of Consent Decree
C.3	Start install and begin operation of bioremediation-groundwater recirculation/SVE systems	Within 2 months of the effective date of Consent Decree
C.4	Install compliance monitoring well network	Within 2 months of the effective date of Consent Decree
C.5	Complete Construction	Within 2 months of the effective date of Consent Decree
C.6	ERH soil performance sampling	Within 6 to 8 months of the effective date of Consent Decree
C.7	Contingent soil excavation in ERH treatment area	Within 6 to 9 months of the effective date of Consent Decree

C.8	Decommission ERH and SVE system	Within 4 to 6 weeks of ERH system final shutdown
C.9	Cleanup Action Report and As-Built Drawings and Report; Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and an updated Title Report	Within 60 days of decommission of ERH and SVE systems (C.8)
D. Post Construction Work		
D.1	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).
D.2	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.
D.3	Indoor Air Sampling of all occupied buildings on the site	May-July 2019, 2020,2021
D.4	Performance Groundwater Monitoring Quarterly Performance Monitoring Biannual Performance Monitoring	June 2018 to June 2020 June 2018 to June 2019 June 2019 to June 2020
D.5	Decommission Bioremediation/Groundwater Recirculation system and monitoring wells	2020 to 2022 (if operation of bioremediation system is extended)
D.6	Soil Vapor Sampling	2020
D.7	Groundwater Confirmation Monitoring Quarterly Compliance Monitoring	2020-2024 June 2020 to June 2022
D.8	As Built Drawings and Report of vapor intrusion mitigation measures (vapor barrier and passive venting systems), and other engineering and institutional controls (if any).	Within 30 days of the City's receipt from the developer
D.9	Five Year Compliance Monitoring and Periodic Review reports	To follow Groundwater compliance monitoring (D.7). Groundwater monitoring required once every five years for the duration of the institutional controls on groundwater (if present) under the environmental covenant.

- 1) *Schedule is in calendar days. Deliverable due date may be modified with Ecology concurrence without amendment to the Consent Decree.*
- 2) *Project Plans include the following: Work Plan, Sampling and Analysis Plan, Quality Assurance Project Plan, and Health and Safety Plan, to be submitted for Ecology review and approval. All plans will include a schedule for implementation as applicable.*
- 3) *The Engineering Design Report includes: a Construction Quality Assurance Project Plan, a Compliance Monitoring and Contingency Response Plan, Proposed Best Management Practices, Water Quality Monitoring Plan, and Substantive Requirements of Procedurally Exempt Permits. Ecology will not approve the Final EDR until the required permits have been obtained.*

FINANCIAL OBLIGATIONS (A. Administrative)		
Provide a cost estimate to Ecology for the implementation of the CD requirements, including operation, maintenance, and compliance monitoring	<i>Feb 12, 2018 BSCSS grant submitted through Ecology EAGL with all cost estimates attached</i>	A4
Provide Ecology with proof of financial assurances in a form acceptable to Ecology	<i>Provided in CFP sheet</i>	A5
Adjust the cost estimated to reflect inflation and changes in cost estimates and provide updated financial assurances	Ongoing with EAGL, spending updated each quarter	-
Pay outstanding Ecology oversight costs of \$13,108.83	<i>Confirmed; All Ecology invoices have been processed</i>	-
Pay Ecology's future oversight costs	Within 30 days of receiving Ecology's invoice; On-going	-
PRE-CLEANUP OBLIGATIONS (B. Design)		
Notify Ecology of selected contractor name and qualifications	<i>Completed, March 13, 2018</i>	A2
Submit written monthly Progress Reports	<i>Submitted 4/10/18 (QPR1); 7/9/18 (QPR2); 10/1/18 (QPR3)</i>	A3
Submit draft Pre-Remedial Design Project Plans (PRDI) ²	<i>Completed (included in draft EDR report)</i>	B1
Submit draft PRDI Data Report and draft Engineering Design Report (EDR) ³	<i>Completed, Feb 8, 2018(v1); March 15, 2018(v2)</i>	B2
Submit final PRDI Data Report and EDR	<i>Completed, April 24, 2018(v1); July 2018 (v2, addressing ECY's 6/5/18 comments). Approved EDR - August 28, 2018</i>	B3
Submit 90% plans and specs (per WAC 173-340-400(4)(b))	<i>Completed, same time as above</i>	B4
Submit 100% plans and specs	<i>Completed, same time as above</i>	B5
FIELD CONSTRUCTION (C)		EXH D ref
Complete construction procurement	<i>Completed; Feb 13, 2018 through March 2018</i>	C1
ERH System Installation	<i>Completed; Feb 13 through May 14, 2018</i>	C2
ERH Operation	<i>Completed; November 20, 2018</i>	
Start install and begin operation of bioremediation-groundwater recirculation /SVE systems	<i>In-progress; Started installation May 2018 (two wells). System operation started August 2018. SVE installed March 2019. Additional wells were installed and sampled in the ERH area</i>	C3
Install compliance well monitoring network	<i>Complete; July 2018</i>	C4
Complete construction	<i>In-progress</i>	C5
Conduct ERH soil performance sampling	<i>Completed; Nov/Dec 2018</i>	C6
Contingent soil excavation in ERH treatment area	<i>October to November 2018</i>	C7
Decommission ERH and SVE-system	<i>Within 4 to 6 weeks of ERH final system shutdown. ERH system was shut down on Nov 20, 2018. The SVE system was left in place to continue treatment as the ground cools down (3 - 6 months)</i>	C8

Submit Cleanup Action Report and As-Built Drawings and Report; draft Institutional Control (IC) Plan; draft Environmental Covenants (s); and an updated Title Report	Within 60 days of decommission of ERH and SVE systems	C9
POST-CONSTRUCTION (D)		
Submit final IC Plan and final Environmental Covenants(s)	Within 30 days of Ecology's comments on draft IC Plan & draft Environmental Covenant	D1
Record the restrictive covenant with the office of the King County Auditor	Within 5 days after the later of Ecology's approval of the Final IC Plan or Ecology's signature on the Final Environmental Covenant	D2
Provide the original recorded restrictive covenant to Ecology	Within 30 days of the covenant recording date	-
Indoor Air Sampling of all occupied buildings on the site	May-July 2019, 2020, 2021	D3
Performance Groundwater Monitoring	June 2018 to June 2020 - Event#1 - September 2018, Event#2 - December 2018, Event#3 - Feb/March 2019	D4
Quarterly Performance Monitoring	June 2018 to June 2019 - Event#1 - September 2018, Event#2 - December 2018, Event#3 - Feb/March 2019	
Biannual Performance Monitoring	June 2019 to June 2020	
Decommission Bioremediation/Groundwater Recirculation system and monitoring wells	2020 to 2022 (if operation of bioremediation system is extended)	D5
Soil vapor sampling	2020	D6
Groundwater Confirmation Monitoring	2020-2024	D7
Quarterly Compliance Monitoring	June 2020 to June 2022	
As-Built Drawings and Report of vapor intrusion mitigation measures (vapor barrier and passive venting systems). And other engineering and institutional controls (if any)	Within 30 days of the City's receipt from the developer	D8
PERIODIC REVIEWS		
Meet with Ecology to discuss the status of the Site	Every 5 years after initiation of cleanup action (until 10 years after termination of the CD)	D9
Five Year Compliance Monitoring and Periodic Review reports	To follow Groundwater compliance monitoring (D.7). Groundwater monitoring required once every five years for the duration of the institutional controls on groundwater (if present) under the environmental covenant.	
Submit periodic review reports to Ecology documenting whether human health and the environment are being protected	At least 90 days prior to each periodic review meeting with Ecology (until 10 years after termination of the CD)	

1) Schedule is in calendar days. Deliverable due date may be modified with Ecology concurrence without amendment to the Consent Decree.

2) Project Plans include the following: Work Plan, Sampling and Analysis Plan, Quality Assurance Project Plan, and Health and Safety Plan, to be submitted for Ecology review and approval. All plans will include a schedule for implementation as applicable.

3) The Engineering Design Report includes: a Construction Quality Assurance Project Plan, a Compliance Monitoring and Contingency Response Plan, Proposed Best Management Practices, Water Quality Monitoring Plan, and Substantive Requirements of Procedural