

CONFIRMATIONAL GROUNDWATER MONITORING REPORT – APRIL 2021 SAMPLING EVENT

SeaTac Development Site (MasterPark Lot C Property)

Prepared for:

Dr. Jerome Cruz

Washington Department of Ecology

June 2021



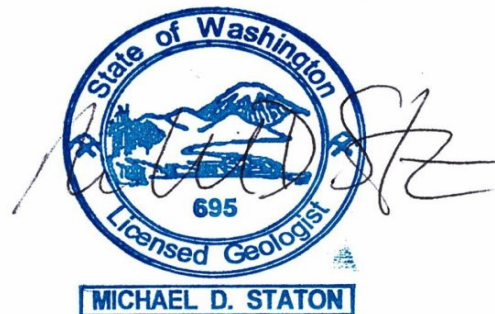
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This document has been prepared by SLR International Corporation (SLR). The material and data in this report were prepared under the supervision and direction of the undersigned.



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ACRONYMS

µg/L	micrograms per liter
mg/L	milligrams per liter
Apex	Apex Laboratories, Inc.
BTEX	benzene, toluene, ethylbenzene, and xylenes
CMP	Compliance Monitoring Plan
COC	contaminants of concern
DO	dissolved oxygen
Ecology	Washington Department of Ecology
EDB	1,2-dibromoethane
Golder	Golder Associates, Inc.
GRO	gasoline range organics
IAS/SVE	in-situ air sparging and soil vapor extraction
MDL	method detection limit
MRL	method reporting limit
MSL	mean sea level
ORP	oxygen reduction potential
QA	quality assurance
QC	quality control
SLR	SLR International Corporation

1. INTRODUCTION

On April 26, 2021, SLR International Corporation (SLR) conducted a quarterly confirmational groundwater monitoring event at the SeaTac Development Site (the Site), which is primarily located at 16025 International Boulevard in SeaTac, Washington (the subject property). The location of the subject property, which is occupied by the MasterPark Lot C parking lot, is shown on Figure 1.

From approximately May to July 2013, and December 2013 through July 2017, Golder Associates, Inc. (Golder) operated an in-situ air sparging and soil vapor extraction (IAS/SVE) system at the subject property to remediate the petroleum hydrocarbon-impacted groundwater at the Site. After the deactivation of the IAS/SVE system in July 2017, performance groundwater monitoring events were conducted on a semiannual basis from November 2017 through July 2019 to monitor any changes in the petroleum hydrocarbon concentrations over time. The results of the performance groundwater sampling showed that petroleum hydrocarbon concentrations in the groundwater beneath the northern and northwestern parts of the subject property were still above the MTCA Method A cleanup levels by July 2019 (SLR, 2019). To reduce the remaining petroleum hydrocarbon concentrations in the groundwater, SLR reactivated the IAS/SVE system on September 5, 2019. The system was operated through July 15, 2020, when it was deactivated prior to the July 2020 performance groundwater monitoring event. Based on the results of the January and July 2020 performance groundwater monitoring events (SLR, 2020a and SLR, 2020b), it appeared that the IAS/SVE system had effectively reduced the petroleum hydrocarbon concentrations in the groundwater beneath the subject property to levels that should naturally attenuate to the below the cleanup levels within a reasonable timeframe. Therefore, the IAS/SVE system was not reactivated after the July 2020 performance groundwater monitoring event.

In accordance with the Compliance Monitoring Plan (CMP; Golder 2011) for the Site, the confirmational groundwater monitoring program was started to evaluate the potential rebound of contaminant concentrations after the deactivation of the IAS/SVE system, and if there is minimal rebound, to demonstrate that the contaminant concentrations have been reduced to below the cleanup levels. The first two quarterly confirmational groundwater monitoring events were conducted in October 2020 and January 2021. The groundwater sample analytical results showed that there was some localized rebound of the gasoline-range organics (GRO) concentrations at monitoring wells MW-07 and MW-22; however, the GRO concentrations were not at levels that justified reactivation of the IAS/SVE system (SLR, 2020d; and SLR, 2021).

The April 2021 groundwater sampling activities were conducted in accordance with the CMP for the Site, as well as with the modifications to the confirmational groundwater monitoring program (SLR, 2020c) that were approved by the Washington Department of Ecology (Ecology; Ecology, 2020).

2. GROUNDWATER SAMPLING EVENT

On April 26, 2021, SLR personnel collected groundwater samples from monitoring wells MW-07, MW-12, MW-13, MW-16, MW-17A, MW-18, and PORT-MW-B. The locations of the groundwater monitoring wells that are included in the confirmational groundwater monitoring program are shown on Figure 2.

Prior to collecting each groundwater sample, SLR personnel measured the depth to groundwater in the well by using an electronic water level meter. We used the existing dedicated submersible bladder pumping system located in each well to purge approximately 1.75 to 2.5 gallons of water from the well. During the purging of each well, the pH, specific conductance, temperature, oxidation reduction potential (ORP), dissolved oxygen (DO), and turbidity of the extracted water were measured approximately every three minutes. A groundwater sample was collected from each of the wells following the stabilization of the field parameter measurements. The final field parameter readings prior to sample collection are presented in Table 1. Field filters were used during the collection of the samples for dissolved iron and dissolved methane analyses. The groundwater samples were collected in the appropriate sample containers provided by Apex Laboratories (Apex) of Tigard, Oregon. The groundwater sampling activities were documented on Low-Flow Groundwater Sampling Field Data Sheets, which are presented in Appendix A.

In accordance with the CMP and the modifications to the confirmational groundwater monitoring program, all of the groundwater samples were submitted to Apex for analyses of the groundwater contaminants of concern (COCs) for the Site (benzene, toluene, ethylbenzene, total xylenes, naphthalene, and n-hexane by EPA Method 8260D; 1,2-dibromoethane [EDB] by EPA Method 8260D SIM; and GRO by Ecology Method NWTPH-Gx). In addition, the groundwater samples from wells MW-12, MW-16, MW-18, and PORT-MW-B were analyzed for natural attenuation parameters (nitrate and sulfate by EPA Method 300.0; total and dissolved iron by EPA Method 6020B; total manganese by EPA Method 6020B; alkalinity by Standard Method 2320B; dissolved methane by Method RSK 175; and total organic carbon by Standard Method SM 5310C).

The sampling purge water is stored in properly labeled 55-gallon drums at the subject property. The water will be transported to a licensed facility for off-site treatment and disposal.

2.1 GROUNDWATER MONITORING RESULTS

On April 26, 2021, SLR personnel measured the depths to groundwater in all of the monitoring wells at the Site. The depths to groundwater in the monitoring wells ranged from 44.85 to 107.20 feet below the top of each well casing. The groundwater elevations in the wells ranged from 309.41 to 312.59 above mean sea level (MSL). The depth to groundwater measurements and groundwater elevations in the monitoring wells on April 26, 2021, are presented in Table 2.

Based on the groundwater elevations on April 26, 2021, the general groundwater flow direction beneath the Site area was primarily to the southwest; however, there was a western component of groundwater flow in the vicinity of South 160th Street. Due to anomalous depth to groundwater measurements, the groundwater elevations in MW-01 and MW-10 were not used to evaluate the groundwater flow direction. MW-01 is screened less than 3 feet below the high seasonal groundwater table and is frequently dry, and

MW-10 is screened at depths of over 40 feet below the groundwater table. A groundwater elevation contour map of the data collected on April 26, 2021, is presented on Figure 3.

2.2 GROUNDWATER SAMPLE ANALYTICAL RESULTS – CONTAMINANTS OF CONCERN

The groundwater sample analytical results showed that the samples from wells MW-07 and MW-12 contained GRO concentrations (1.63 and 0.97 milligrams per liter [mg/L], respectively) that exceeded the MTCA Method A cleanup level (0.80 mg/L when benzene is present). The samples from MW-07 and MW-12 also contained benzene, toluene, ethylbenzene, total xylenes, naphthalene, and/or n-hexane concentrations (up to 3.8, 8.8, 42.9, 66.8, 22.4, and 20.8 micrograms per liter [µg/L], respectively) greater than the method reporting limits (MRLs), but below their Method A or Method B cleanup levels (5, 1,000, 700, 1,000, 160, and 480 µg/L, respectively). The samples collected from wells MW-13, MW-16, MW-18, and PORT-MW-B each contained one of the analytes (GRO, benzene, or total xylenes) at a concentration above the MRL; however, none of the detected analyte concentrations in those samples exceeded the Method A or Method B cleanup levels. The sample collected from well MW-17A did not contain any analyte concentrations greater than the MRLs.

The April 2021 groundwater sample analytical results for the groundwater COCs are presented in Table 1, and the GRO and benzene concentrations are also presented on Figure 2. The groundwater sample analytical results from the April 2021 sampling event (groundwater COCs only), as well as from the previous groundwater sampling events, are presented in data tables and on trend plots in Appendix B. The laboratory reports from the April 2021 sampling event are included in Appendix C.

2.3 GROUNDWATER SAMPLE ANALYTICAL RESULTS – NATURAL ATTENUATION PARAMETERS

The groundwater samples from wells MW-12, MW-16, MW-18, and PORT-MW-B were analyzed for natural attenuation parameters. As described above, the sample from MW-12 contained a GRO concentration above the cleanup level, and the sample from MW-16 contained a GRO concentration below the cleanup level. The samples from MW-18 and PORT-MW-B only contained benzene concentrations below the cleanup level. The groundwater sample analytical results for the natural attenuation parameters showed that the samples collected from MW-12, MW-16, and PORT-MW-B contained detectable total iron concentrations (73.8, 86.0, and 2,610 µg/L, respectively), and total iron was not detected above the MRL (50 µg/L) in the sample from MW-18. Dissolved iron was detected in the sample from MW-16 (52.6 µg/L), but was not detected above the MRL (50.0 µg/L) in the samples from MW-12, MW-18, and PORT-MW-B. Based on the high total iron concentration and non-detectable dissolved iron concentration in the sample from PORT-MW-B, it appears that iron-containing solids at the bottom of the well were disturbed during purging and/or sampling, and SLR does not believe that the total iron concentration in that sample represents the actual groundwater conditions at that location. Therefore, the total iron concentration from PORT-MW-B was not used to evaluate natural attenuation.

The groundwater samples from all of the wells contained total manganese concentrations that ranged from 161 to 2,140 µg/L, sulfate concentrations that ranged from 7.50 to 36.1 mg/L, and dissolved methane concentrations that ranged from 0.10 to 4.4 µg/L. Nitrate-nitrogen was detected in the sample from PORT-MW-B at a concentration of 5.29 mg/L, but was not detected above the MRL (0.25 mg/L) in the samples from MW-12, MW-16, and MW-18. Total alkalinity concentrations ranged from 25.9 to 145 mg

CaCO₃/L in the samples collected from MW-12, MW-16, and MW-18; however, total alkalinity was not detected above the MRL (20 mg CaCO₃/L) in the sample from PORT-MW-B. Total organic carbon was detected in the samples from MW-12 and MW-18 at concentrations of 8.98 and 2.98 mg/L, respectively, but was not detected above the MRL (1.0 mg/L) in the samples from MW-16 and PORT-MW-B.

The April 2021 groundwater sample analytical results for the natural attenuation parameters are presented in Table 3. The laboratory reports from the April 2021 sampling event are included in Appendix C.

3. DATA QUALITY ASSURANCE AND VALIDATION

Based on the results of a data validation review, the groundwater sample analytical data were acceptable without any data qualifications, except for the n-hexane and dissolved methane results. Apex assigned an E-05 qualifier to the n-hexane concentrations in the samples from MW-7 and MW-12. Apex defined the E-05 qualifier a result that is an estimate because the Initial Calibration Verification (ICV) failed high. Apex noted that there was no effect on the non-detect results. Eurofins Calscience, LLC (Eurofins), a subcontracted laboratory to Apex, analyzed the samples for dissolved methane and assigned a J qualifier to the concentrations in the samples from MW-12, MW-16, MW-18, and PORT-MW-B. Eurofins defined the J qualifier as an approximate concentration that is less than the reporting limit but greater than or equal to the method detection limit (MDL). The analytical results for the equipment blank and trip blank samples did not contain any analyte concentrations above the MRLs, and Apex did not apply any data qualifiers to those results. The analytical results of the duplicate sample (labeled MW-37-0421) collected from well MW-07 were within an acceptable range, except for the result for n-hexane. N-hexane was detected in sample MW-7-0421 at a concentration of 5.28 µg/L; however, n-hexane was not detected above the MRL (0.01 µg/L) in the duplicate sample (MW-37-0421).

4. CONCLUSIONS

On April 26, 2021, SLR conducted the third quarterly confirmational groundwater monitoring event at the SeaTac Development Site. The objectives of the confirmational groundwater monitoring program are to evaluate the potential rebound of contaminant concentrations after the deactivation of the IAS/SVE system in July 2020, and if there is minimal rebound, to demonstrate that the contaminant concentrations have been reduced to below the cleanup levels.

The groundwater sample analytical results from the January and July 2020 performance groundwater sampling events showed that the IAS/SVE system operations had reduced the petroleum hydrocarbon concentrations beneath the subject property to below the MTCA Method A cleanup levels, except for a GRO concentration (0.90 mg/L) at well MW-13 that exceeded the Method A cleanup level and a GRO concentration at well MW-07 that equaled the Method A cleanup level in July 2020 (SLR, 2020b). The groundwater sample analytical results from the first three quarterly confirmational groundwater sampling events showed that petroleum hydrocarbon concentrations beneath the subject property were below the Method A cleanup levels, except for consistent GRO concentrations (up to 3.55 mg/L) above the Method A cleanup level at MW-07 and GRO concentrations above the Method A cleanup level in the January 2021 sample from MW-22 (1.74 mg/L) and the April 2021 sample from MW-12 (0.97 mg/L).

The groundwater sample analytical results from the confirmational groundwater sampling events indicate localized rebound of the GRO concentrations near the northern end of the subject property (at MW-07 and MW-12) and within South 160th Street, to the northwest of the subject property (at MW-22); however, SLR does not believe that the current groundwater concentrations are at a level that would justify reactivation of the IAS/SVE system, particularly since the concentrations of the higher toxicity components of gasoline (BTEX, EDB, n-hexane, and naphthalene) are still below the Method A or Method B cleanup levels. Any rebound of the petroleum hydrocarbon concentrations in the groundwater at the other monitoring wells at the Site has been minimal. Tables that show the groundwater COC concentrations over time and trend graphs that show the GRO and benzene concentrations over time are presented in Appendix B.

Natural attenuation parameters are geochemical indicators that are either consumed or produced during biodegradation and can serve as evidence of natural attenuation. Inverse relationships between contaminant concentrations and dissolved oxygen, nitrate, sulfate, and ORP concentrations are consistent with the occurrence of biodegradation, as are positive relationships between contaminant concentrations and ferrous iron, methane, manganese, and alkalinity concentrations (Ecology, 2005). The concentrations of the natural attenuation parameters monitored in April 2021 strongly indicate that natural attenuation of the remaining petroleum hydrocarbons in the groundwater is occurring. Specifically, as illustrated on Figure 4, nitrate, sulfate, and DO all trended lower in the samples with detectable GRO (MW-12 and MW-16) as opposed to the samples with no detectable GRO (MW-18 and PORT-MW-B). Similarly, manganese, methane, and total iron all trended higher in the samples with detectable GRO as opposed to the samples with no detectable GRO.

5. REFERENCES

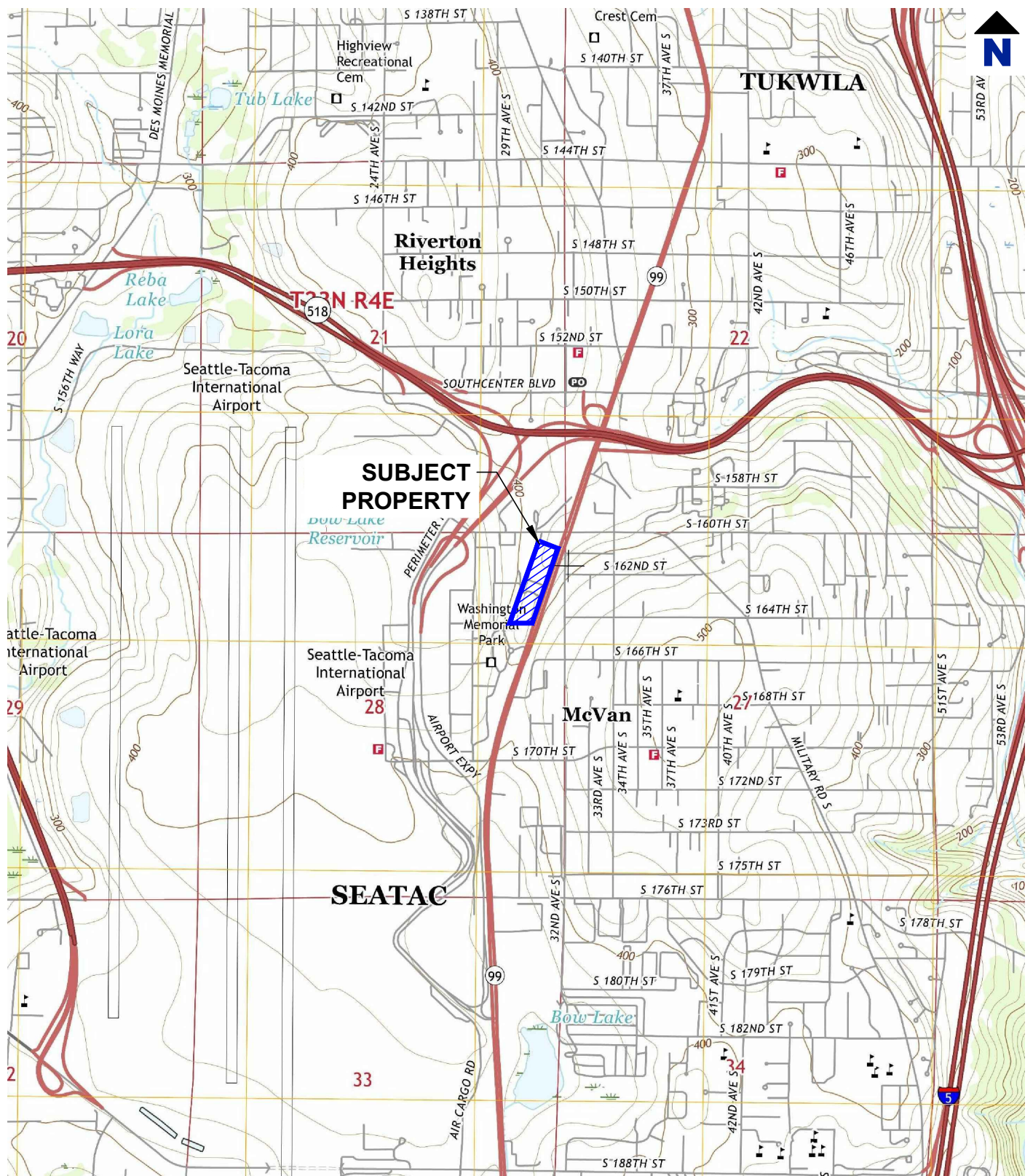
- Golder Associates, Inc. 2011. *Attachment E, Compliance Monitoring Plan, Sea-Tac Development Site, SeaTac, Washington*. November 2.
- SLR International Corporation. 2019. *Performance Groundwater Monitoring Report – July 2019 Sampling Event, SeaTac Development Site (MasterPark Lot C Property)*. October.
- SLR International Corporation. 2020a. *Performance Groundwater Monitoring Report – January 2020 Sampling Event, SeaTac Development Site (MasterPark Lot C Property)*. March.
- SLR International Corporation. 2020b. *Performance Groundwater Monitoring Report – July 2020 Sampling Event, SeaTac Development Site (MasterPark Lot C Property)*. September.
- SLR International Corporation. 2020c. *Request for Modifications to Confirmational Groundwater Monitoring Program, SeaTac Development Site (MasterPark Lot C Property), SeaTac, Washington*. September 23.
- SLR International Corporation. 2020d. *Confirmational Groundwater Monitoring Report – October 2020 Sampling Event, SeaTac Development Site (MasterPark Lot C Property)*. November.
- SLR International Corporation. 2021. *Confirmational Groundwater Monitoring Report – January 2021 Sampling Event, SeaTac Development Site (MasterPark Lot C Property)*. February.
- Washington Department of Ecology. 2005. *User’s Manual: Natural Attenuation Analysis Tool Package for Petroleum-Contaminated Ground Water*. July.
- Washington Department of Ecology. 2020. Letter from Jerome Cruz of Ecology to Mike Staton of SLR Re: Request for Modifications to Confirmational Groundwater Monitoring Program, SeaTac Development Site (MasterPark Lot C), SeaTac, Washington. October 13.

LIMITATIONS

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Opinions and recommendations contained in this work product are based on conditions that existed at the time the services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this work product.

FIGURES



REFERENCED FROM :
USGS 7.5 MINUTE QUADRANGLE DES MOINES, 2017

0 2000' 4000'

SEATAC DEVELOPMENT SITE
16025 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Drawing

SUBJECT PROPERTY LOCATION MAP

Date September 19, 2019

Scale AS SHOWN

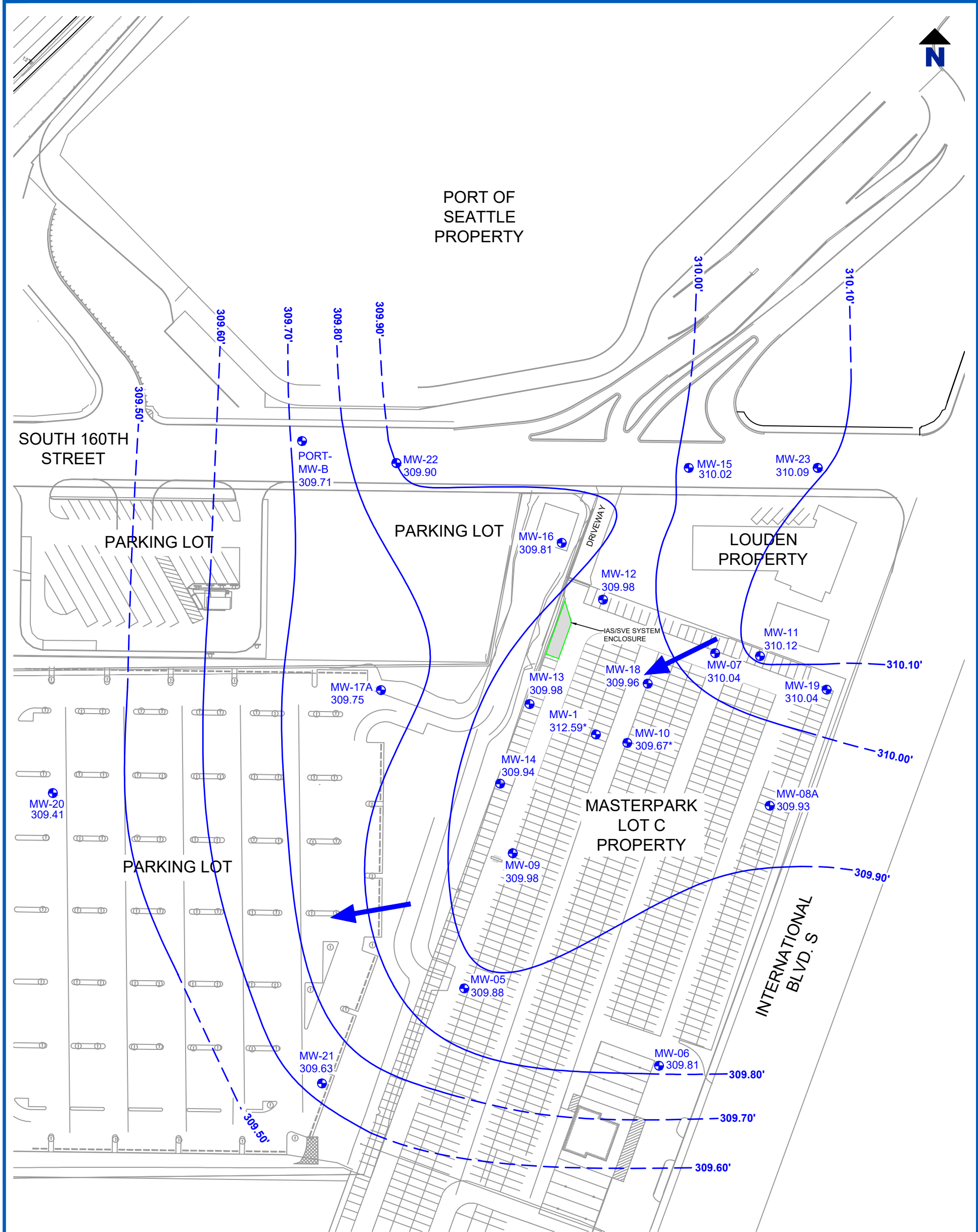
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-
1. BASEMAP BASED ON IAS AND SVE PIPING LAYOUT FIGURE (12/02/15) AND GROUNDWATER MONITORING LOCATIONS MAP (05/01/19) PRODUCED BY GOLDER ASSOCIATES, INC.

2. * = DUE TO AN ANOMALOUS DEPTH TO GROUNDWATER MEASUREMENT, THE GROUDWATER ELEVATION WAS NOT USED FOR CONTOURING.



LEGEND

MW-21

309.63

309.60'

SITE MONITORING WELL LOCATION AND DESIGNATION

GROUNDWATER SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL) ON APRIL 26, 2021

GROUNDWATER SURFACE ELEVATION CONTOUR LINE (FEET ABOVE MEAN SEA LEVEL)

GENERAL GROUNDWATER FLOW DIRECTION



SEATAC DEVELOPMENT SITE
SEATAC, WASHINGTON

Drawing
GROUNDWATER ELEVATION CONTOUR MAP -
APRIL 26, 2021

DateMay 14, 2021

ScaleAS SHOWN

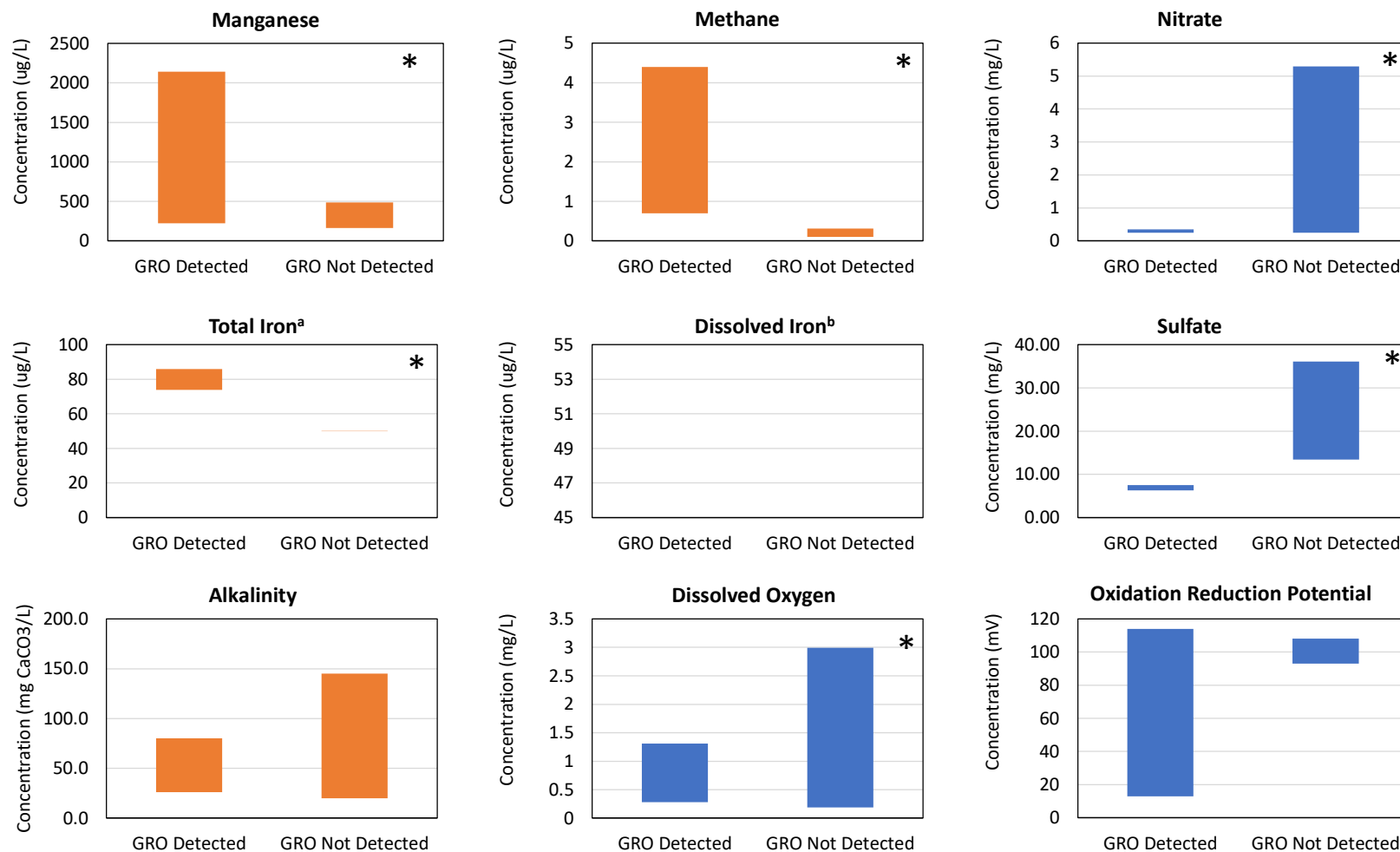
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Project No.128.02207.00002

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Figure 4
Range of Natural Attenuation Parameter Concentrations in Groundwater Samples with and without GRO
April 2021 Groundwater Sampling Event
SeaTac Development Site
SeaTac, Washington



Notes:

GRO Detected represents MW-12 and MW-16 in which GRO was 0.97, and 0.35 mg/L, respectively.

GRO Not Detected represents MW-18 and PORT-MW-B, in which GRO was <0.10 mg/L.

Parameters for which a relative increase is consistent with biodegradation

Parameters for which a relative decrease is consistent with biodegradation

***** Denotes that observed trend is consistent with the occurrence of natural attenuation.

a The sample from PORT-MW-B contained a total iron concentration of 2,610 µg/L, however, based on a non-detect dissolved iron value (<50 µg/L) in that sample it appears that the total iron concentration in PORT-MW-B was due to iron containing solids in the sample and does not represent groundwater conditions. Therefore, the total iron concentration from PORT-MW-B was not used in this graph.

b Dissolved iron was not detected in the April 2021 groundwater samples.

TABLES

Table 1
Groundwater Field Parameters and Sample Analytical Results for Groundwater COCs
April 2021 Sampling Event
SeaTac Development Site
SeaTac, Washington

Well ID	Date Sampled	Field Parameters							Analytical Data											
		Depth to Groundwater (feet)	pH	Temperature (°C)	Specific Conductance (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	GRO ^a (mg/L)	Benzene ^b (µg/L)	Toluene ^b (µg/L)	Ethylbenzene ^b (µg/L)	Total Xylenes ^b (µg/L)	EDB ^c (µg/L)	N-hexane ^b (µg/L)	Naphthalene ^b (µg/L)	DRO ^d (mg/L)	ORO ^d (mg/L)	DRO ^d after Silica Gel Cleanup (mg/L)	ORO ^d after Silica Gel Cleanup (mg/L)
		MTCA Method A Groundwater Cleanup Levels ^a							0.8 ^f /1.0 ^g	5.0	1,000	700	1,000	0.01	480 ^h	160	0.5	0.5	0.5	0.5
MW-07	04/26/21	48.65	6.60	15.9	277	0.59	12.9	4.54	1.63	3.8	3.2	14.0	26.0	<0.01	5.28 J	7.8	NA	NA	NA	NA
MW-7 (duplicate ^j)	04/26/21	--	--	--	--	--	--	--	1.61	4.0	3.1	14.3	24.2	<0.01	<0.01	NA	NA	NA	NA	NA
MW-12	04/26/21	54.85	7.01	15.1	363	0.28	144	3.25	0.97	0.61	8.8	42.9	66.8	<0.01	20.8 J	22.4	NA	NA	NA	NA
MW-13	04/26/21	55.44	6.85	14.3	217	6.18	285	1.69	<0.10	<0.20	<1.0	<0.50	3.7	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-16	04/26/21	67.82	6.72	14.1	184	1.31	114	2.13	0.35	<0.20	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-17A	04/26/21	84.69	6.29	13.3	180	3.98	250	94.8	<0.10	<0.20	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-18	04/26/21	50.49	7.65	15.7	378	0.19	108	0.44	<0.10	0.51	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA
PORT-MW-B	04/26/21	90.12	6.80	13.7	228	2.99	93.0	62.6	<0.10	0.22	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA
Notes: Values in bold and red exceed MTCA Method A or B Cleanup Levels. NM = Turbidity was not measured; however, the purge water from each of the wells was clear (no visible turbidity) at the time of sample collection. mg/L = Milligrams per liter µg/L = Micrograms per liter µmhos/cm = Micromhos per centimeter NTU = Nephelometric turbidity unit °C = Degrees Celsius J = Laboratory estimated value COCs = Contaminants of concern GRO = Gasoline-range organics DRO = Diesel-range organics ORO = Oil-range organics EDB = 1,2-dibromoethane NA = Not analyzed mV = Millivolts ^a Analyzed by Ecology Method NWTPH-Gx. ^b Analyzed by EPA Method 8260C. ^c Analyzed by EPA Method 8260C SIM. ^d Analyzed by Ecology Method NWTPH-Dx. ^e Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater. ^f When benzene is present. ^g When benzene is not present. ^h Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019). ⁱ The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level. ^j Duplicate sample named MW-37-0421 and was collected from MW-7																				

Table 2
Groundwater Monitoring Data - April 26, 2021
SeaTac Development Site
SeaTac, Washington

Well Number	Top of Casing Elevation ^a (feet)	Approximate Depth of Well Screen (feet bgs)	Date Measured	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-01	361.38	41 to 51	04/26/21	48.79	312.59
MW-05	364.26	48 to 58	04/26/21	54.38	309.88
MW-06	369.68	50 to 60	04/26/21	59.87	309.81
MW-07	358.69	43.5 to 53.5	04/26/21	48.65	310.04
MW-08A	359.16	44 to 54	04/26/21	49.23	309.93
MW-09	362.13	47.5 to 57	04/26/21	52.15	309.98
MW-10	360.18	80 to 90	04/26/21	50.51	309.67
MW-11	357.53	42 to 57	04/26/21	47.41	310.12
MW-12	364.83	52 to 67	04/26/21	54.85	309.98
MW-13	365.42	50 to 65	04/26/21	55.44	309.98
MW-14	363.76	50 to 65	04/26/21	53.82	309.94
MW-15	364.67	50 to 65	04/26/21	54.65	310.02
MW-16	377.63	64 to 74	04/26/21	67.82	309.81
MW-17A	394.44	80 to 95	04/26/21	84.69	309.75
MW-18	360.45	47 to 62	04/26/21	50.49	309.96
MW-19	356.61	43 to 58	04/26/21	46.57	310.04
MW-20	416.61	103 to 113	04/26/21	107.20	309.41
MW-21	412.85	95 to 110	04/26/21	103.22	309.63
MW-22	393.31	80 to 95	04/26/21	83.41	309.90
MW-23	354.94	42.5 to 57.5	04/26/21	44.85	310.09
PORT-MW-B	399.83	79 to 99	04/26/21	90.12	309.71
Notes: NM = Not measured. ^a The top of well casing elevations were surveyed relative to mean seal level.					

Table 3
Groundwater Sample Analytical Results for Natural Attenuation Parameters
April 2021 Sampling Event
SeaTac Development Site
SeaTac, Washington

Well ID	Date Sampled	Total Iron ^a (µg/L)	Dissolved Iron ^a (µg/L)	Total Manganese ^a (µg/L)	Nitrate-Nitrogen ^b (mg/L)	Sulfate ^b (mg/L)	Total Organic Carbon ^c (mg/L)	Total Alkalinity ^d (mg CaCO ₃ /L)	Dissolved Methane ^e (µg/L)
MW-12	04/26/21	73.8	<50	2,140	<0.25	7.50	8.98	80.2	4.4 J
MW-16	04/26/21	86.0	<50	221	<0.25	6.27	<1.0	25.9	0.70 J
MW-18	04/26/21	<50	<50	487	<0.25	36.1	2.98	145	0.31 J
PORT-MW-B	04/26/21	2,610	<50	161	5.29	13.4	<1.0	<20.0	0.10 J
Notes: mg/L = Milligrams per liter µg/L = Micrograms per liter CaCO ₃ = Calcium Carbonate J = Estimated value. ^a Analyzed by EPA Method 6020B (ICPMS) ^b Analyzed by EPA Method 300.0 Anions by Ion Chromatography. ^c Analyzed by Standard Method 5310C. ^d Analyzed by Standard Method 2320B. ^e Analyzed by RSK-175.									

APPENDIX A

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEETS

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>128.02207.00002</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-7</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-7-0421</u>
Location: <u>16025 International Boulevard, SeaTac, Washington</u>		QA Samples: <u>MW-37-0421</u>	

Date Purged: <u>4/26/21</u>	Start (2400hr): <u>1412</u>	End (2400hr): <u>1436</u>
Date Sampled: <u>4/26/21</u>	Sample Time (2400hr): <u>1436</u>	

Casing Diameter: 2" ☒ 3" ☐ 4" ☐ 5" ☐ 6" ☐ 8" ☐ Other ☐
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = _____	Tubing Volume (gal) = _____
Depth to water (feet) = <u>48.65</u>	Minimum Purge (gal) = _____
Water column height (feet) = _____	Actual Purge (gal) = _____

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Color (Visual)
<u>0</u>	<u>1412</u>	<u>15.9</u>	<u>0.2527</u>		<u>4.55</u>	<u>6.77</u>	<u>105.6</u>	<u>3.5</u>	<u>clear</u>
<u>0.25</u>	<u>1415</u>	<u>15.8</u>	<u>0.2834</u>		<u>0.64</u>	<u>6.61</u>	<u>18.1</u>	<u>175</u>	<u>clear</u>
<u>0.5</u>	<u>1418</u>	<u>15.7</u>	<u>0.2764</u>		<u>0.61</u>	<u>6.60</u>	<u>26.3</u>	<u>50.4</u>	<u>clear</u>
<u>0.75</u>	<u>1421</u>	<u>15.7</u>	<u>0.2762</u>		<u>0.55</u>	<u>6.60</u>	<u>27.9</u>	<u>26.0</u>	<u>clear</u>
<u>1.0</u>	<u>1424</u>	<u>15.7</u>	<u>0.2774</u>		<u>0.56</u>	<u>6.61</u>	<u>22.1</u>	<u>15.8</u>	<u>clear</u>
<u>1.25</u>	<u>1427</u>	<u>15.7</u>	<u>0.2776</u>		<u>0.55</u>	<u>6.62</u>	<u>18.8</u>	<u>10.4</u>	<u>clear</u>
<u>1.5</u>	<u>1430</u>	<u>15.8</u>	<u>0.2772</u>		<u>0.56</u>	<u>6.61</u>	<u>16.7</u>	<u>6.98</u>	<u>clear</u>
<u>1.75</u>	<u>1433</u>	<u>15.9</u>	<u>0.2779</u>		<u>0.57</u>	<u>6.61</u>	<u>15.3</u>	<u>5.31</u>	<u>clear</u>
<u>2.0</u>	<u>1436</u>	<u>15.9</u>	<u>0.2774</u>		<u>0.59</u>	<u>6.60</u>	<u>12.9</u>	<u>4.54</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: _____ Pump Intake Depth: _____ (feet)	☐ 40mL VOA ☐ _____ mL HDPE w/ H2SO4 <u>5/2</u> ☐ 40mL VOA w/ HCL _____ ☐ _____ mL amber glass _____ ☐ _____ mL amber glass w/ HCL _____ ☐ _____ mL HDPE _____ ☐ _____ mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u>	Page 1 of _1_
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>128.02207.00002</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-12</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-12-0421</u>
Location: <u>16025 International Boulevard, SeaTac, Washington</u>		QA Samples: <u>0</u>	

Date Purged: <u>4/26/21</u>	Start (2400hr): <u>1239</u>	End (2400hr): <u>1300</u>
Date Sampled: <u>4/26/21</u>	Sample Time (2400hr): <u>1300</u>	

Casing Diameter: 2" ☒ 3" ☐ 4" ☐ 5" ☐ 6" ☐ 8" ☐ Other ☐
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = _____	Tubing Volume (gal) = _____
Depth to water (feet) = <u>54.85</u>	Minimum Purge (gal) = _____
Water column height (feet) = _____	Actual Purge (gal) = _____

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Color (Visual)
<u>0</u>	<u>1239</u>	<u>15.5</u>	<u>0.1067</u>		<u>7.34</u>	<u>7.35</u>	<u>200.3</u>	<u>4.19</u>	<u>clear</u>
<u>0.25</u>	<u>1242</u>	<u>15.2</u>	<u>0.0647</u>		<u>0.74</u>	<u>6.64</u>	<u>220.9</u>	<u>16.4</u>	<u>clear</u>
<u>0.5</u>	<u>1245</u>	<u>15.0</u>	<u>0.0833</u>		<u>0.52</u>	<u>6.66</u>	<u>215.7</u>	<u>12.1</u>	<u>clear</u>
<u>0.75</u>	<u>1248</u>	<u>15.0</u>	<u>0.0997</u>		<u>0.39</u>	<u>6.85</u>	<u>195.6</u>	<u>7.11</u>	<u>clear</u>
<u>1.0</u>	<u>1251</u>	<u>15.0</u>	<u>0.1065</u>		<u>0.35</u>	<u>6.90</u>	<u>188.2</u>	<u>4.33</u>	<u>clear</u>
<u>1.25</u>	<u>1254</u>	<u>15.1</u>	<u>0.1238</u>		<u>0.30</u>	<u>6.96</u>	<u>160.0</u>	<u>9.37</u>	<u>clear</u>
<u>1.5</u>	<u>1257</u>	<u>15.0</u>	<u>0.1359</u>		<u>0.29</u>	<u>7.00</u>	<u>146.8</u>	<u>3.35</u>	<u>clear</u>
<u>1.75</u>	<u>1300</u>	<u>15.1</u>	<u>0.363</u>		<u>0.28</u>	<u>7.01</u>	<u>144.2</u>	<u>3.25</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: _____ Pump Intake Depth: _____ (feet)	☐ 40mL VOA <u>1</u> <u>250</u> mL HDPE w/ H2SO4 ☒ 40mL VOA w/ HCL _____ ☐ _____ mL amber glass _____ ☐ _____ mL amber glass w/ HCL _____ <u>1</u> <u>500</u> mL HDPE _____ <u>2</u> <u>250</u> mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u>	Page 1 of <u>1</u>
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>128.02207.00002</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-16</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-16-0421</u>
Location: <u>16025 International Boulevard, SeaTac, Washington</u>		QA Samples: <u>0</u>	

Date Purged: <u>4/26/21</u>	Start (2400hr): <u>1459</u>	End (2400hr): <u>1529</u>
Date Sampled: <u>4/26/21</u>	Sample Time (2400hr): <u>1529</u>	

Casing Diameter: 2" <u>X</u>	3" _____	4" _____	5" _____	6" _____	8" _____	Other _____
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)

Total depth (feet) = _____	Tubing Volume (gal) = _____
Depth to water (feet) = <u>67.82</u>	Minimum Purge (gal) = _____
Water column height (feet) = _____	Actual Purge (gal) = _____

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Color (Visual)
0	1459	14.6	0.2345		9.17	7.15	168.1	1.05	clear
0.25	1502	14.0	0.1799		5.31	6.78	180.2	16.7	clear
0.5	1505	14.0	0.1716		3.93	6.54	180.1	17.8	clear
0.75	1508	14.0	0.1730		3.67	6.56	177.5	8.06	clear
1.0	1511	14.3	0.1753		3.11	6.60	172.0	9.22	clear
1.25	1514	14.2	0.1759		2.49	6.62	167.8	7.54	clear
1.5	1517	14.3	0.1795		1.90	6.67	159.5	4.98	clear
1.75	1520	14.4	0.1808		1.78	6.67	157.0	4.42	clear
2.0	1523	14.1	0.1822		1.57	6.68	150.4	4.16	clear
2.25	1526	14.3	0.1832		1.40	6.71	91.9	3.04	clear
2.50	1529	14.1	0.1840		1.31	6.72	113.8	2.13	clear

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump _____ Bailer (disposable) ☐ Active Extraction Well Pump _____ Bailer (PVC) ☐ Submersible Pump _____ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: _____ Pump Intake Depth: _____ (feet)	_____ 40mL VOA <u>1</u> <u>250</u> mL HDPE w/ H2SO4 <u>7</u> 40mL VOA w/ HCL _____ _____ mL amber glass _____ _____ mL amber glass w/ HCL _____ <u>1</u> <u>500</u> mL HDPE _____ <u>2</u> <u>250</u> mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>N</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u>	Page 1 of _1_
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>128.02207.00002</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-17A</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-17A-0421</u>
Location: <u>16025 International Boulevard, SeaTac, Washington</u>		QA Samples: <u>0</u>	

Date Purged: <u>4/26/21</u>	Start (2400hr): <u>1553</u>	End (2400hr): <u>1617</u>
Date Sampled: <u>4/26/21</u>	Sample Time (2400hr): <u>1617</u>	

Casing Diameter: 2" <u>X</u> 3" 4" 5" 6" 8" Other
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) =	Tubing Volume (gal) =
Depth to water (feet) = <u>84.69</u>	Minimum Purge (gal) =
Water column height (feet) =	Actual Purge (gal) =

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Color (Visual)
0	1553	17.3	0.1630		8.31	6.65	282.0	0.82	clear
0.25	1556	16.7	0.1654		8.16	6.51	281.7	2.23	clear
0.5	1559	13.8	0.1785		9.60	6.28	184.3	94.6	clear
0.75	1602	13.8	0.1787		9.15	6.25	203.7	112	clear
1.0	1605	13.7	0.1789		4.32	6.24	227.0	117	clear
1.25	1608	13.9	0.1788		4.09	6.28	233.3	109	clear
1.5	1611	13.5	0.1790		4.14	6.27	239.8	99.6	clear
1.75	1614	13.7	0.1786		4.10	6.29	242.7	98.4	clear
2.0	1617	13.3	0.1796		3.98	6.29	250.1	94.8	clear

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ___ Bailer (disposable) ___ Active Extraction Well Pump ___ Bailer (PVC) ___ Submersible Pump ___ Bailer (Stainless Steel) ___ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: _____ Pump Intake Depth: _____ (feet)	___ 40mL VOA ___ mL HDPE w/ H2SO4 <u>5</u> 40mL VOA w/ HCL _____ ___ mL amber glass _____ ___ mL amber glass w/ HCL _____ ___ mL HDPE _____ ___ mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u>	Page 1 of 1
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>128.02207.00002</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-18</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-18-0421</u>
Location: <u>16025 International Boulevard, SeaTac, Washington</u>		QA Samples: <u>0</u>	

Date Purged: <u>4/26/21</u>	Start (2400hr): <u>1327</u>	End (2400hr): <u>1351</u>
Date Sampled: <u>4/26/21</u>	Sample Time (2400hr): <u>1351</u>	

Casing Diameter: 2" ☒ 3" ☐ 4" ☐ 5" ☐ 6" ☐ 8" ☐ Other ☐
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = _____	Tubing Volume (gal) = _____
Depth to water (feet) = <u>50.49</u>	Minimum Purge (gal) = _____
Water column height (feet) = _____	Actual Purge (gal) = _____

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Color (Visual)
<u>0</u>	<u>1327</u>	<u>16.0</u>	<u>0.3889</u>		<u>0.99</u>	<u>7.25</u>	<u>209.2</u>	<u>1.86</u>	<u>clear</u>
<u>0.25</u>	<u>1330</u>	<u>15.9</u>	<u>0.3866</u>		<u>0.50</u>	<u>7.55</u>	<u>197.0</u>	<u>2.61</u>	<u>clear</u>
<u>0.5</u>	<u>1333</u>	<u>15.7</u>	<u>0.3734</u>		<u>0.28</u>	<u>7.65</u>	<u>188.5</u>	<u>1.41</u>	<u>clear</u>
<u>0.75</u>	<u>1336</u>	<u>15.8</u>	<u>0.3706</u>		<u>0.23</u>	<u>7.67</u>	<u>184.9</u>	<u>1.41</u>	<u>clear</u>
<u>1.0</u>	<u>1339</u>	<u>15.7</u>	<u>0.3712</u>		<u>0.27</u>	<u>7.65</u>	<u>76.8</u>	<u>0.97</u>	<u>clear</u>
<u>1.25</u>	<u>1342</u>	<u>15.7</u>	<u>0.3726</u>		<u>0.20</u>	<u>7.65</u>	<u>91.3</u>	<u>0.69</u>	<u>clear</u>
<u>1.5</u>	<u>1345</u>	<u>15.6</u>	<u>0.3742</u>		<u>0.19</u>	<u>7.67</u>	<u>106.3</u>	<u>0.58</u>	<u>clear</u>
<u>1.75</u>	<u>1348</u>	<u>15.7</u>	<u>0.3764</u>		<u>0.18</u>	<u>7.66</u>	<u>104.1</u>	<u>0.56</u>	<u>clear</u>
<u>2.0</u>	<u>1351</u>	<u>15.7</u>	<u>0.3779</u>		<u>0.19</u>	<u>7.65</u>	<u>107.5</u>	<u>0.44</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u> tubing </u> Other: _____ Pump Intake Depth: _____ (feet)	☐ 40mL VOA <u>1</u> <u>250</u> mL HDPE w/ H2SO4 ☒ 40mL VOA w/ HCL _____ ☐ _____ mL amber glass _____ ☐ _____ mL amber glass w/ HCl _____ <u>1</u> <u>500</u> mL HDPE _____ <u>2</u> <u>250</u> mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>Stu</u> <u>Wick</u>	Page 1 of _1_
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>128.02207.00002</u>		Purged By: <u>SML</u>	Well I.D.: <u>PORT-MW-B</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>PORT-MW-B-0421</u>
Location: <u>16025 International Boulevard, SeaTac, Washington</u>		QA Samples: <u> </u>	

Date Purged: <u>4/26/21</u>	Start (2400hr): <u>1051</u>	End (2400hr): <u>1115</u>
Date Sampled: <u>4/26/21</u>	Sample Time (2400hr): <u>1115</u>	

Casing Diameter: 2" X 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = _____	Tubing Volume (gal) = _____
Depth to water (feet) = <u>90.12</u>	Minimum Purge (gal) = _____
Water column height (feet) = _____	Actual Purge (gal) = _____

FIELD MEASUREMENTS

Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Color (Visual)
<u>0</u>	<u>1051</u>	<u>15.4</u>	<u>0.2303</u>	_____	<u>9.24</u>	<u>7.29</u>	<u>190.0</u>	<u>0.84</u>	<u>clear</u>
<u>0.25</u>	<u>1054</u>	<u>13.5</u>	<u>0.2231</u>	_____	<u>5.74</u>	<u>6.70</u>	<u>176.4</u>	<u>31.4</u>	<u>clear</u>
<u>0.5</u>	<u>1057</u>	<u>13.6</u>	<u>0.2355</u>	_____	<u>3.69</u>	<u>6.84</u>	<u>100.4</u>	<u>225</u>	<u>clear</u>
<u>0.75</u>	<u>1100</u>	<u>13.5</u>	<u>0.2341</u>	_____	<u>3.60</u>	<u>6.85</u>	<u>86.4</u>	<u>147</u>	<u>clear</u>
<u>1.0</u>	<u>1103</u>	<u>13.4</u>	<u>0.2333</u>	_____	<u>3.41</u>	<u>6.85</u>	<u>84.2</u>	<u>159</u>	<u>clear</u>
<u>1.25</u>	<u>1106</u>	<u>13.5</u>	<u>0.2306</u>	_____	<u>3.31</u>	<u>6.82</u>	<u>82.7</u>	<u>139</u>	<u>clear</u>
<u>1.5</u>	<u>1109</u>	<u>13.8</u>	<u>0.2290</u>	_____	<u>3.19</u>	<u>6.82</u>	<u>84.3</u>	<u>121</u>	<u>clear</u>
<u>1.75</u>	<u>1112</u>	<u>13.6</u>	<u>0.2290</u>	_____	<u>3.03</u>	<u>6.81</u>	<u>89.4</u>	<u>86.1</u>	<u>clear</u>
<u>2.0</u>	<u>1115</u>	<u>13.7</u>	<u>0.2275</u>	_____	<u>2.99</u>	<u>6.80</u>	<u>93.0</u>	<u>62.6</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump _____ Bailer (disposable) _____ Active Extraction Well Pump _____ Bailer (PVC) _____ Submersible Pump _____ Bailer (Stainless Steel) _____ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: _____ Pump Intake Depth: _____ (feet)	_____ 40mL VOA <u>1</u> <u>250</u> mL HDPE w/ H2SO4 <u>7</u> 40mL VOA w/ HCL _____ _____ mL amber glass _____ _____ mL amber glass w/ HCl _____ <u>1</u> <u>5000</u> mL HDPE _____ <u>2</u> <u>250</u> mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: _____	

Signature: [Signature]

Page 1 of _1_

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>128.02207.00002</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-13</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-13-0421</u>
Location: <u>16025 International Boulevard, SeaTac, Washington</u>		QA Samples: <u>0</u>	

Date Purged: <u>4/26/21</u>	Start (2400hr): <u>1636</u>	End (2400hr): <u>1703</u>
Date Sampled: <u>4/26/21</u>	Sample Time (2400hr): <u>1703</u>	

Casing Diameter: <u>2" X</u>	3" <u> </u>	4" <u> </u>	5" <u> </u>	6" <u> </u>	8" <u> </u>	Other <u> </u>
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)

Total depth (feet) = <u> </u>	Tubing Volume (gal) = <u> </u>
Depth to water (feet) = <u>55.44</u>	Minimum Purge (gal) = <u> </u>
Water column height (feet) = <u> </u>	Actual Purge (gal) = <u> </u>

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Color (Visual)
<u>0</u>	<u>1636</u>	<u>14.4</u>	<u>0.2203</u>	<u> </u>	<u>6.48</u>	<u>7.01</u>	<u>270.7</u>	<u>5.79</u>	<u>clear</u>
<u>0.25</u>	<u>1639</u>	<u>14.3</u>	<u>0.2160</u>	<u> </u>	<u>6.13</u>	<u>6.88</u>	<u>275.5</u>	<u>19.0</u>	<u>clear</u>
<u>0.5</u>	<u>1642</u>	<u>14.4</u>	<u>0.2154</u>	<u> </u>	<u>6.44</u>	<u>6.86</u>	<u>264.5</u>	<u>12.8</u>	<u>clear</u>
<u>0.75</u>	<u>1645</u>	<u>14.3</u>	<u>0.2149</u>	<u> </u>	<u>6.16</u>	<u>6.86</u>	<u>267.3</u>	<u>8.52</u>	<u>clear</u>
<u>1.0</u>	<u>1648</u>	<u>14.3</u>	<u>0.2154</u>	<u> </u>	<u>6.20</u>	<u>6.88</u>	<u>266.7</u>	<u>6.82</u>	<u>clear</u>
<u>1.25</u>	<u>1651</u>	<u>14.3</u>	<u>0.2164</u>	<u> </u>	<u>6.20</u>	<u>6.86</u>	<u>269.9</u>	<u>2.85</u>	<u>clear</u>
<u>1.5</u>	<u>1654</u>	<u>14.2</u>	<u>0.2154</u>	<u> </u>	<u>6.12</u>	<u>6.81</u>	<u>295.7</u>	<u>4.54</u>	<u>clear</u>
<u>1.75</u>	<u>1657</u>	<u>14.2</u>	<u>0.2165</u>	<u> </u>	<u>6.23</u>	<u>6.85</u>	<u>289.5</u>	<u>2.54</u>	<u>clear</u>
<u>2.0</u>	<u>1700</u>	<u>14.3</u>	<u>0.2166</u>	<u> </u>	<u>6.17</u>	<u>6.85</u>	<u>280.3</u>	<u>1.77</u>	<u>clear</u>
<u>2.25</u>	<u>1703</u>	<u>14.3</u>	<u>0.2167</u>	<u> </u>	<u>6.18</u>	<u>6.85</u>	<u>285.2</u>	<u>1.69</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump <u> </u> Bailer (disposable) <u> </u> Active Extraction Well Pump <u> </u> Bailer (PVC) <u> </u> Submersible Pump <u> </u> Bailer (Stainless Steel) <u> </u> Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: <u> </u> Pump Intake Depth: <u> </u> (feet)	<u> </u> 40mL VOA <u> </u> mL HDPE w/ H2SO4 <u>5</u> 40mL VOA w/ HCL <u> </u> <u> </u> mL amber glass <u> </u> <u> </u> mL amber glass w/ HCl <u> </u> <u> </u> mL HDPE <u> </u> <u> </u> mL HDPE w/ HNO3 <u> </u>

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u>	Page 1 of <u>1</u>
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APPENDIX B

DATA TABLES AND TREND GRAPHS

Table B-1
Summary of Groundwater Sampling Results - Well MW-07
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
11/01/07	358.70	54.19	304.51	NM	NM	NM	NM	NM	10.0	18.0	16.0	350	418	NA	NA	NA	0.44	NA	NA	NA
05/19/09	358.70	54.76	303.94	6.34	15.20	552.00	1.58	> 1,000	7.80	9.90	3.40	200.00	73.70	NA	NA	NA	NA	NA	NA	NA
12/07/09	358.70	55.05	303.65	6.61	13.60	484.00	0.26	NM	5.90	21.00	<4.0	420.00	49.30	<0.0096	6.30	150.00	NA	NA	NA	NA
03/16/10	358.70	54.83	303.87	6.44	12.90	565.00	0.18	21.00	5.40	17.00	2.00	310.00	59.20	<0.0096	28.00	120.00	NA	NA	NA	NA
11/08/18	358.70	52.40	306.30	7.18	14.00	290.00	2.49	NM	0.82	0.48	0.19 J	1.80	0.24 J	NA	NA	NA	1.00	<0.20	NA	NA
01/05/01	358.70	NM	NM	NM	NM	NM	NM	NM	80	470	7,700	2,000	11,200	NA	NA	NA	< 0.25	< 0.50	NA	NA
08/16/07	358.70	NM	NM	NM	NM	NM	NM	NM	68	500	3,200	1,600	8,690	NA	NA	NA	NA	NA	NA	NA
12/07/09	358.70	49.02	309.68	6.89	10.90	347	2.83	NM	46	520	5,600	1,300	6,800	0.03	220	420	NA	NA	NA	NA
03/18/10	358.70	48.69	310.01	6.61	13.30	354	1.41	5.18	26	230	1,100	360	4,630	0.01	160	210	NS	NS	NA	NA
02/13/14	358.69	47.72	310.97	6.56	14.3	131	0.35	3.87	29	25	110	180	2,022	< 3.8 ^e	190	220	11 J	< 0.20	NA	NA
05/29/14	358.69	47.65	311.04	6.65	16.4	379	0.13	2.84	27	14	80	190	1,811	< 1.5 ^e	140	210 B	11 J	< 0.20	NA	NA
09/11/14	358.69	47.95	310.74	6.73	16.5	373	0.35	2.28	36	17	81	260	2,110	< 0.028 ^e	280	300 B J	11	0.41 J	NA	NA
12/04/14	358.69	47.95	310.74	6.70	15.7	333	0.20	2.95	26	21	66	200	1,507	< 0.07 ^e	170	180	11 J	0.32 J	NA	NA
06/18/15	358.69	48.01	310.68	6.64	16.1	371	0.25	1.57	15 J	6.4	28 J	110 J	533 J	< 0.07 ^e	93 J	96 J	5.4	0.24 J	NA	NA
12/03/15	358.69	49.96	308.73	6.44	15.9	526	0.14	2.91	23	77	1,200	270	1,550	< 1.5 ^e	160	69	4.9 J	< 0.20	NA	NA
05/04/16	358.69	49.05	309.64	6.68	16.0	640	1.02	4.57	12	30	500	170	970	<0.20 ^e	150	68 J	6.5 J	0.30 J	NA	NA
11/16/16	358.69	48.50	310.19	6.54	15.9	411	1.39	3.95	8.3	4.3	9.5	40	85	<0.20 ^e	11 J	37	2.4	<0.20	NA	NA
05/03/17	358.69	48.13	310.56	6.38	16.2	188	1.33	3.78	2.9	1.8	0.46	14	21	<0.20 ^e	1.9	32	1.4	0.20	NA	NA
11/14/17	358.69	47.15	311.54	6.39	15.1	278	0.98	NM	2.2	0.70	0.42	1.1	5.9	<0.20 ^e	0.3	11	1.6	0.44	NA	NA
01/18/18	358.69	46.75	311.94	6.21	14.7	270	0.23	2.15	1.9	1.0	0.67	2.04 J	7.3 J	<0.20 ^e	0.5	10	1.5	<0.20	NA	NA
03/09/18	358.69	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/16/18	358.69	46.10	312.59	6.15	15.2	248	0.25	2.25	1.8	0.41	0.35	1	3	<0.01	<0.20	6.1	0.78	<0.20	NA	NA
11/08/18	358.69	46.32	312.37	6.67	14.7	220	0.29	1.60	1.4	0.73	0.29	0.78	1.6	<0.01	0.42	4.0	0.74	<0.20	NA	NA
07/26/19	358.69	46.74	311.95	6.45	17.4	281	0.43	NM	0.73	0.30	0.27	0.75	1.13	<0.003	0.29	1.6	0.17	<0.20	<0.10	<0.20
01/29/20	358.69	48.12	310.57	6.72	14.6	201	0.86	NM	0.75	0.39	8.1	2.3	11.0	<0.02 ^e	6.97	5.1	NA	NA	<0.081	<0.16
07/22/20	358.69	48.43	310.26	6.03	16.1	139	0.29	NM	0.80	<0.20	<1.0	2.2	11.9	<0.01	<2.0	2.9	NA	NA	NA	NA
10/19/20	358.69	48.79	309.90	6.32	15.6	205	1.73	6.59	1.74	0.84	2.5	9.7	14.6	<0.02 ^e	<0.20	5.8	NA	NA	NA	NA
01/18/21	358.69	49.03	309.66	6.32	14.1	266	1.40	2.73	3.55	2.66	33.0	41.0	200.0	<0.5 ^e	19.40	16.2	NA	NA	NA	NA
04/26/21	358.69	48.65	310.04	6.60	15.9	277	0.59	4.54	1.63	3.8	3.2	14.0	26	<0.01	5.28 J	7.8	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A Cleanup Levels.

NS = Not sampled

NM = Not measured

NA = Not analyzed

mg/L = Milligrams per liter

µg/L = Micrograms per liter

NTU = Nephelometric turbidity unit

µmhos/cm = Micromhos per centimeter

°C = Degrees Celsius

J = Laboratory estimated value

DRO = Diesel-range organics

ORO = Oil-range organics

GRO = Gasoline-range organics

EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^b When benzene is present.

^c When benzene is not present.

^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-2
Summary of Groundwater Sampling Results - Well MW-12
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
11/01/07	364.88	54.19	310.69	NM	NM	NM	NM	NM	10.0	18.0	16.0	350	418	NA	NA	NA	0.44	NA	NA	NA
05/19/09	364.88	54.76	310.12	6.34	15.20	552.00	1.58	> 1,000	7.80	9.90	3.40	200.00	73.70	NA	NA	NA	NA	NA	NA	NA
12/07/09	364.88	55.05	309.83	6.61	13.60	484.00	0.26	NM	5.90	21.00	<4.0	420.00	49.30	<0.0096	6.30	150.00	NA	NA	NA	NA
03/16/10	364.88	54.83	310.05	6.44	12.90	565.00	0.18	21.00	5.40	17.00	2.00	310.00	59.20	<0.0096	28.00	120.00	NA	NA	NA	NA
11/08/18	364.88	52.40	312.48	7.18	14.00	290.00	2.49	NM	0.82	0.48	0.19 J	1.80	0.24 J	NA	NA	NA	1.00	<0.20	NA	NA
08/16/07	364.88	NM	NM	NM	NM	NM	NM	NM	92	710	7,600	1,800	11,000	NA	NA	NA	NA	NA	NA	NA
05/21/09	364.88	54.99	309.87	6.43	17.8	416	0.19	33.7	110	1,600	11,000	2,100	10,000	0.70	< 500 ^e	580	NA	NA	NA	NA
12/07/09	364.88	55.29	309.59	7.58	12.0	452	0.06	NM	38	390	2,600	1,200	4,990	0.21	110	540	NA	NA	NA	NA
03/15/10	364.88	54.99	309.89	6.38	14.5	472	0.03	40.8	36	230	2,400	1,300	5,140	0.16	210	520	NS	NS	NS	NS
02/13/14	364.83	55.02	309.81	7.76	14.1	125	10.50	3.43	8.6	79	410	79	970	< 3.8 ^e	< 10	25	1.1 J	< 0.20	NA	NA
05/29/14	364.83	51.58	313.25	7.87	16.7	252	11.77	5.99	0.12	2.0	4.3	1.6	4.2	< 0.07 ^e	< 0.20	< 0.50	0.34 J	< 0.20	NA	NA
09/11/14	364.83	54.87	309.96	8.04	18.1	255	11.80	38.8	0.11	2.5	2.6	1.5	5.3	< 0.01	0.78	0.53 B J	0.35	< 0.20	NA	NA
12/04/14	364.83	54.87	309.96	8.04	15.1	258	11.51	153	< 0.10	< 0.25	< 0.25	0.73	6.0	< 0.07 ^e	0.18 J	0.68	0.20	< 0.20	NA	NA
06/18/15	364.83	NM	NM	8.09	16.3	208	9.90	2.44	< 0.25	< 0.20	< 0.20	0.10 J	2.1	< 0.07 ^e	0.26	< 0.50	0.45	< 0.20	NA	NA
12/03/15	364.83	56.74	308.09	NM	NM	NM	NM	NM	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	< 0.50	0.29	< 0.20	NA	NA
05/04/16	364.83	55.53	309.30	7.68	15.1	226	7.72	3.48	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	0.18 J	< 0.20	NA	NA
11/16/16	364.83	55.20	309.63	7.84	14.9	199	8.45	13.4	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	0.16	< 0.20	NA	NA
05/03/17	364.83	59.02	305.81	7.53	15.9	80	8.01	4.96	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	0.89	< 0.215	NA	NA
11/15/17	364.83	53.37	311.46	7.69	14.9	301	0.99	18.9	2.2	1.8	18	11	113	< 0.20 ^e	29	33	1.0	0.30	NA	NA
01/18/18	364.83	53.13	311.70	7.29	14.4	314	0.35	30.1	2.2	1.7	12	26	90	< 0.20 ^e	29	30	1.6	< 0.20	NA	NA
03/09/18	364.83	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/16/18	364.83	52.31	312.52	7.06	15.3	374	0.27	3.02	2.8	17	2.1	24	43	< 0.01	26	19	2.9	< 0.20	NA	NA
11/08/18	364.83	52.55	312.28	7.98	14.7	354	0.36	6.60	3.6	26	2.5	24	25	< 0.01	48 J	17	< 0.10	< 0.20	NA	NA
07/29/19	364.83	53.01	311.82	7.28	16.0	455	0.89	NM	2.3	8.2	2.9	16	25	< 0.003	8.43	14	1.85	< 0.20	< 0.10	< 0.20
01/29/20	364.83	63.90	300.93	7.18	12.6	10	13.47	NM	< 0.10	< 0.10	< 0.50	< 0.25	< 0.75	< 0.01	< 1.0	< 1.0	NA	NA	< 0.078	< 0.16
07/22/20	364.83	54.60	310.23	6.36	15.2	185	0.24	NM	< 0.10	< 0.20	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA
10/19/20	364.83	54.97	309.86	6.85	15.5	129	1.58	2.87	0.13	< 0.20	< 1.0	< 0.50	6.2	< 0.01	2.1	< 4.0	NA	NA	NA	NA
01/18/21	364.83	55.23	309.60	6.28	14.3	68	0.48	5.04	0.48	0.4	2.0	4	40.3	< 0.01	9.7	9	NA	NA	NA	NA
04/26/21	364.83	54.85	309.98	7.01	15.1	363	0.28	3.25	0.97	0.61	8.8	42.9	66.8	< 0.01	20.8 J	22.4	NA	NA	NA	NA

Notes:
Values in bold and red exceed MTCA Method A Cleanup Levels.
NS = Not sampled
NM = Not measured
NA = Not analyzed
mg/L = Milligrams per liter
µg/L = Micrograms per liter
NTU = Nephelometric turbidity unit
µmhos/cm = Micromhos per centimeter
°C = Degrees Celsius
J = Laboratory estimated value
DRO = Diesel-range organics
ORO = Oil-range organics
GRO = Gasoline-range organics
EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.
^b When benzene is present.
^c When benzene is not present.
^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).
^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-3
Summary of Groundwater Sampling Results - Well MW-13
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Napthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
11/01/07	365.42	54.19	311.23	NM	NM	NM	NM	NM	10.0	18.0	16.0	350	418	NA	NA	NA	0.44	NA	NA	NA
05/19/09	365.42	54.76	310.66	6.34	15.20	552.00	1.58	> 1,000	7.80	9.90	3.40	200.00	73.70	NA	NA	NA	NA	NA	NA	NA
12/07/09	365.42	55.05	310.37	6.61	13.60	484.00	0.26	NM	5.90	21.00	<4.0	420.00	49.30	<0.0096	6.30	150.00	NA	NA	NA	NA
03/16/10	365.42	54.83	310.59	6.44	12.90	565.00	0.18	21.00	5.40	17.00	2.00	310.00	59.20	<0.0096	28.00	120.00	NA	NA	NA	NA
11/08/18	365.42	52.40	313.02	7.18	14.00	290.00	2.49	NM	0.82	0.48	0.19 J	1.80	0.24 J	NA	NA	NA	1.00	<0.20	NA	NA
08/16/07	365.42	NM	NM	NM	NM	NM	NM	NM	92	180.0	5,600	2,100	12,600	NA	NA	NA	NA	NA	NA	NA
05/20/09	365.42	55.51	309.91	6.29	18.8	474	1.13	4.8	76	51.0	1,400	2,100	11,000	0.07	< 250	640	NA	NA	NA	NA
12/07/09	365.42	55.83	309.59	6.44	12.3	429	0.18	NM	31	20.0	310	870	4,570	0.05	100	500	NA	NA	NA	NA
03/19/10	365.42	55.66	309.76	6.28	12.8	271	0.16	72.1	33	14	230	890	4,500	0.029	130	410	NS	NS	NS	NS
02/12/14	365.42	54.35	311.07	6.57	13.2	73.3	1.41	4.28	14	< 0.25	3.9	240	2,070	< 0.08 ^e	< 0.20	33	1.4 J	< 0.20	NA	NA
05/29/14	365.42	55.62	309.80	6.84	14.7	182	10.59	4.24	0.14	< 0.25	< 0.25	0.85	19	< 0.07 ^f	0.11 J	< 0.50	0.32	< 0.20	NA	NA
09/10/14	365.42	54.86	310.56	7.06	14.9	137	11.06	2.41	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.01	< 0.20	< 0.50	0.29	< 0.20	NA	NA
12/04/14	365.42	54.86	310.56	7.06	13.9	163	10.10	2.32	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^g	< 0.20	< 0.50	0.31	< 0.20	NA	NA
06/18/15	365.42	54.70	310.72	7.13	14.7	174	10.71	1.32	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^h	< 0.20	0.61	0.27	< 0.20	NA	NA
12/02/15	365.42	56.43	308.99	7.27	14.2	164	10.20	0.90	< 0.25	< 0.20	< 0.20	0.23	1.10 J	< 0.07 ^h	< 0.20	< 0.50	0.26	< 0.20	NA	NA
05/03/16	365.42	56.30	309.12	7.79	15.8	194	14.18	1.14	<0.10	<0.20	<0.20	<0.20	0.44	<0.20 ^e	<0.20	<0.50	0.12 J	<0.20	NA	NA
11/15/16	365.42	55.81	309.61	7.25	14.1	195	10.64	0.73	<0.10	<0.20	<0.20	<0.20	0.46	<0.20 ^e	<0.20	<0.50	0.19	<0.20	NA	NA
05/03/17	365.42	55.14	310.28	7.03	14.5	116	10.71	1.45	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	0.18	<0.20	NA	NA
11/14/17	365.42	54.05	311.37	6.75	13.6	136	1.72	NM	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	0.13	<0.20	NA	NA
01/16/18	365.42	53.62	311.80	6.93	13.4	159	0.85	2.02	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	<0.10	<0.20	NA	NA
03/09/18	365.42	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/15/18	365.42	52.96	312.46	6.43	14.1	120	1.87	1.14	<0.10	<0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	<0.10	<0.20	NA	NA
11/07/18	365.42	53.16	312.26	7.10	13.6	141	1.00	0.64	<0.10	<0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	<0.10	<0.20	NA	NA
07/29/19	365.42	53.59	311.83	6.83	17.0	212	1.85	NM	<0.10	0.07 J	<0.20	<0.20	<0.60	<0.003	<0.20	<0.50	<0.10	<0.20	<0.10	<0.20
01/30/20	365.42	54.92	310.50	7.10	12.9	215	3.28	NM	<0.10	0.15 J	<0.50	<0.25	<0.75	<0.01	<1.0	<1.0	NA	NA	NA	NA
07/22/20	365.42	55.19	310.23	5.75	14.4	238	0.99	NM	0.90	0.34	<1.0	0.74	<1.50	<0.20 ^e	5.8	4.6	NA	NA	NA	NA
10/19/20	365.42	55.67	309.75	6.72	14.1	274	2.04	2.17	0.53	0.21	<1.0	<0.50	<1.50	<0.20 ^e	<2.0	<2.0	NA	NA	NA	NA
01/18/21	365.42	55.85	309.57	6.56	13.3	277	1.31	0.49	0.53	0.22	1.23	6.58	18	<0.01	<2.0	4.66	NA	NA	NA	NA
04/26/21	365.42	55.44	309.98	6.85	14.3	217	6.18	1.69	<0.10	<0.20	<1.0	<0.50	3.7	<0.01	<2.0	<2.0	NA	NA	NA	NA
Notes: Values in bold and red exceed MTCA Method A Cleanup Levels. NS = Not sampled NM = Not measured NA = Not analyzed mg/L = Milligrams per liter µg/L = Micrograms per liter NTU = Nephelometric turbidity unit µmhos/cm = Micromhos per centimeter °C = Degrees Celsius J = Laboratory estimated value DRO = Diesel-range organics ORO = Oil-range organics GRO = Gasoline-range organics EDB = 1,2-dibromoethane ^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater. ^b When benzene is present. ^c When benzene is not present. ^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019). ^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.																				

Table B-5
Summary of Groundwater Sampling Results - Well MW-16
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data									
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)
MTCA Method A Groundwater Cleanup Levels ^a									0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5
11/01/07	376.36	54.19	322.17	NM	NM	NM	NM	NM	10.0	18.0	16.0	350	418	NA	NA	NA	0.44	NA
05/19/09	376.36	54.76	321.60	6.34	15.20	552.00	1.58	> 1,000	7.80	9.90	3.40	200.00	73.70	NA	NA	NA	NA	NA
12/07/09	376.36	55.05	321.31	6.61	13.60	484.00	0.26	NM	5.90	21.00	<4.0	420.00	49.30	<0.0096	6.30	150.00	NA	NA
03/16/10	376.36	54.83	321.53	6.44	12.90	565.00	0.18	21.00	5.40	17.00	2.00	310.00	59.20	<0.0096	28.00	120.00	NA	NA
11/08/18	376.36	52.40	323.96	7.18	14.00	290.00	2.49	NM	0.82	0.48	0.19 J	1.80	0.24 J	NA	NA	NA	1.00	<0.20
11/13/07	376.36	65.95	310.41	--	--	--	--	--	26.0	160	320	830	1,733	NA	NA	NA	NA	NA
05/22/09	376.36	66.56	309.80	6.33	15.4	440	0.35	3.97	28.0	180	67.0	1,200	1,800	<0.10 ^e	240	350	NA	NA
12/07/09	376.36	66.82	309.54	6.50	12.7	473	0.25	NM	10.0	69.0	67.0	580	490	0.05	66	230	NA	NA
03/17/10	376.36	66.62	309.74	6.40	11.7	446	0.22	5.14	6.60	51.0	15.0	430	292	0.04	38	170	NA	NA
07/29/19	377.63	65.95	311.68	6.57	15.6	184	0.45	NM	1.73	0.64	0.32	0.45	0.48 J	<0.003	4.1	1.0	<0.10	<0.20
10/19/20	377.63	68.02	309.61	6.55	13.4	237	2.26	2.54	0.19	0.29	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA
01/18/21	377.63	68.21	309.42	6.37	13.3	248	0.58	1.08	0.41	0.22	<1.0	<0.5	<1.5	<0.01	3.4	<2.0	NA	NA
04/26/21	377.63	67.82	309.81	6.72	14.1	184	1.31	2.13	0.35	<0.20	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA

Notes:
Values in bold and **red** exceed MTCA Method A Cleanup Levels.
NS = Not sampled
NM = Not measured
NA = Not analyzed
mg/L = Milligrams per liter
µg/L = Micrograms per liter
NTU = Nephelometric turbidity unit
µmhos/cm = Micromhos per centimeter
°C = Degrees Celsius
J = Laboratory estimated value
DRO = Diesel-range organics
ORO = Oil-range organics
GRO = Gasoline-range organics
EDB = 1,2-dibromoethane
-- = Not available
^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.
^b When benzene is present.
^c When benzene is not present.
^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).
^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-6
Summary of Groundwater Sampling Results - Well MW-17A
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
MTCA Method A Groundwater Cleanup Levels ^a									0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
11/01/07	385.81	54.19	331.62	NM	NM	NM	NM	NM	10.0	18.0	16.0	350	418	NA	NA	NA	0.44	NA	NA	NA
05/19/09	385.81	54.76	331.05	6.34	15.20	552.00	1.58	> 1,000	7.80	9.90	3.40	200.00	73.70	NA	NA	NA	NA	NA	NA	NA
12/07/09	385.81	55.05	330.76	6.61	13.60	484.00	0.26	NM	5.90	21.00	<4.0	420.00	49.30	<0.0096	6.30	150.00	NA	NA	NA	NA
03/16/10	385.81	54.83	330.98	6.44	12.90	565.00	0.18	21.00	5.40	17.00	2.00	310.00	59.20	<0.0096	28.00	120.00	NA	NA	NA	NA
11/08/18	385.81	52.40	333.41	7.18	14.00	290.00	2.49	NM	0.82	0.48	0.19 J	1.80	0.24 J	NA	NA	NA	1.00	<0.20	NA	NA
11/13/07	385.81	75.60	310.21	NM	NM	NM	NM	NM	17	1.0	5.2	45	507	NA	NA	NA	7.3	< 0.5	NA	NA
05/28/09	385.81	76.17	309.64	6.23	18.2	183.9	0.37	4.9	6.3	0.7	0.6	13	96	< 0.2 ^e	< 5.0	150	NA	NA	NA	NA
12/07/09	385.81	76.49	309.32	6.46	10	166	0.13	NM	4.5	< 4.0	7	8.8	56	< 0.0095	< 4.0	140	NA	NA	NA	NA
03/17/10	385.81	76.29	309.52	6.51	9.3	145	0.52	142	1.7	< 1.0	< 1.0	4.0	27	< 0.0095	< 1.0	63	NS	NS	NS	NS
02/11/14	394.00 ^e	83.80	310.20 ^f	6.36	11.3	82.5	1.06	137	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.08 ^g	< 0.20	0.74	< 0.10	< 0.20	NA	NA
05/29/14	394.00 ^e	84.00	310.00 ^f	6.22	12.2	175	2.06	39.7	< 0.10	0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^g	< 0.20	0.62 J	< 0.10	< 0.20	NA	NA
09/10/14	394.00 ^e	84.18	309.82 ^f	6.28	12.4	162	1.42	18.8	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^g	< 0.20	0.64 J	< 0.10	< 0.20	NA	NA
12/05/14	394.00 ^e	84.18	309.82 ^f	6.42	11.7	167	1.09	31.8	< 0.10 J	0.54 J	< 0.25 J	< 0.25 J	0.63 J	< 0.07 ^g	< 0.20 J	2.8	< 0.10	< 0.20	NA	NA
06/17/15	394.00 ^e	84.16	309.84 ^f	6.29	12.9	158	3.13	29.6	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/18/15	394.00 ^e	85.95	308.05 ^f	6.57	11.8	127	0.20	23.7	0.05 J	0.75	< 0.20	0.08 J	< 0.40	< 0.07 ^g	< 0.20	0.98 J	< 0.10	< 0.20	NA	NA
05/03/16	394.00 ^e	85.21	308.79 ^f	6.51	13.1	132	4.60	8.41	< 0.10	0.33	< 0.20	< 0.20	< 0.40	< 0.20 ^g	0.11 J	0.71 J	< 0.10	< 0.20	NA	NA
11/15/16	394.00 ^e	84.57	309.43 ^f	6.46	12.6	122	3.76	10.2	< 0.10	0.14 J	< 0.20	< 0.20	< 0.40	< 0.20 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/03/17	394.00 ^e	84.24	309.76 ^f	6.08	12.4	76	7.25	7.57	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/15/17	394.00 ^e	83.17	310.83 ^f	6.62	12.1	105	7.05	NM	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^g	< 0.20	0.54	< 0.10	< 0.20	NA	NA
01/16/18	394.00 ^e	82.95	311.05 ^f	6.27	12.0	111	8.55	4.2	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
03/09/18	394.00 ^e	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/15/18	394.00 ^e	82.21	311.79 ^f	6.14	12.9	106	8.57	1.4	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/08/18	394.00 ^e	82.49	311.51 ^f	6.48	12.3	116	8.20	3.4	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
07/29/19	394.00 ^e	82.67	311.33 ^f	6.35	15.4	175	6.90	NM	< 0.10	< 0.20	< 0.20	< 0.20	< 0.60	< 0.003	0.10 J	< 0.50	< 0.10	< 0.20	< 0.10	< 0.20
01/30/20	394.44	84.14	310.30	6.38	12.1	161	5.74	NM	< 0.10	< 0.10	< 0.50	< 0.25	< 0.75	< 0.01	< 1.0	< 1.0	NA	NA	NA	NA
07/21/20	394.44	84.35	310.09	5.35	13.7	168	1.99	NM	< 0.10	< 0.20	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA
10/19/20	394.44	84.93	309.51	5.86	14.3	182	3.02	13.2	< 0.10	< 0.20	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA
01/18/21	394.44	85.14	309.30	6.23	12.3	179	1.15	1.7	< 0.10	0.49	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA
04/26/21	394.44	84.69	309.75	6.29	13.3	180	3.98	94.8	< 0.10	< 0.20	< 1.0	< 0.50	< 1.5	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA
Notes:																				
Values in bold and red exceed MTCA Method A Cleanup Levels.																				
NS = Not sampled																				
NM = Not measured																				
NA = Not analyzed																				
mg/L = Milligrams per liter																				
µg/L = Micrograms per liter																				
NTU = Nephelometric turbidity unit																				
µmhos/cm = Micromhos per centimeter																				
°C = Degrees Celsius																				
J = Laboratory estimated value																				
DRO = Diesel-range organics																				
ORO = Oil-range organics																				
GRO = Gasoline-range organics																				
EDB = 1,2-dibromoethane																				
^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.																				
^b When benzene is present.																				
^c When benzene is not present.																				
^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).																				
^e Top of casing elevation was not surveyed; elevation was estimated by Golder Associates, Inc.																				
^f Estimated elevation.																				
^g The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.																				

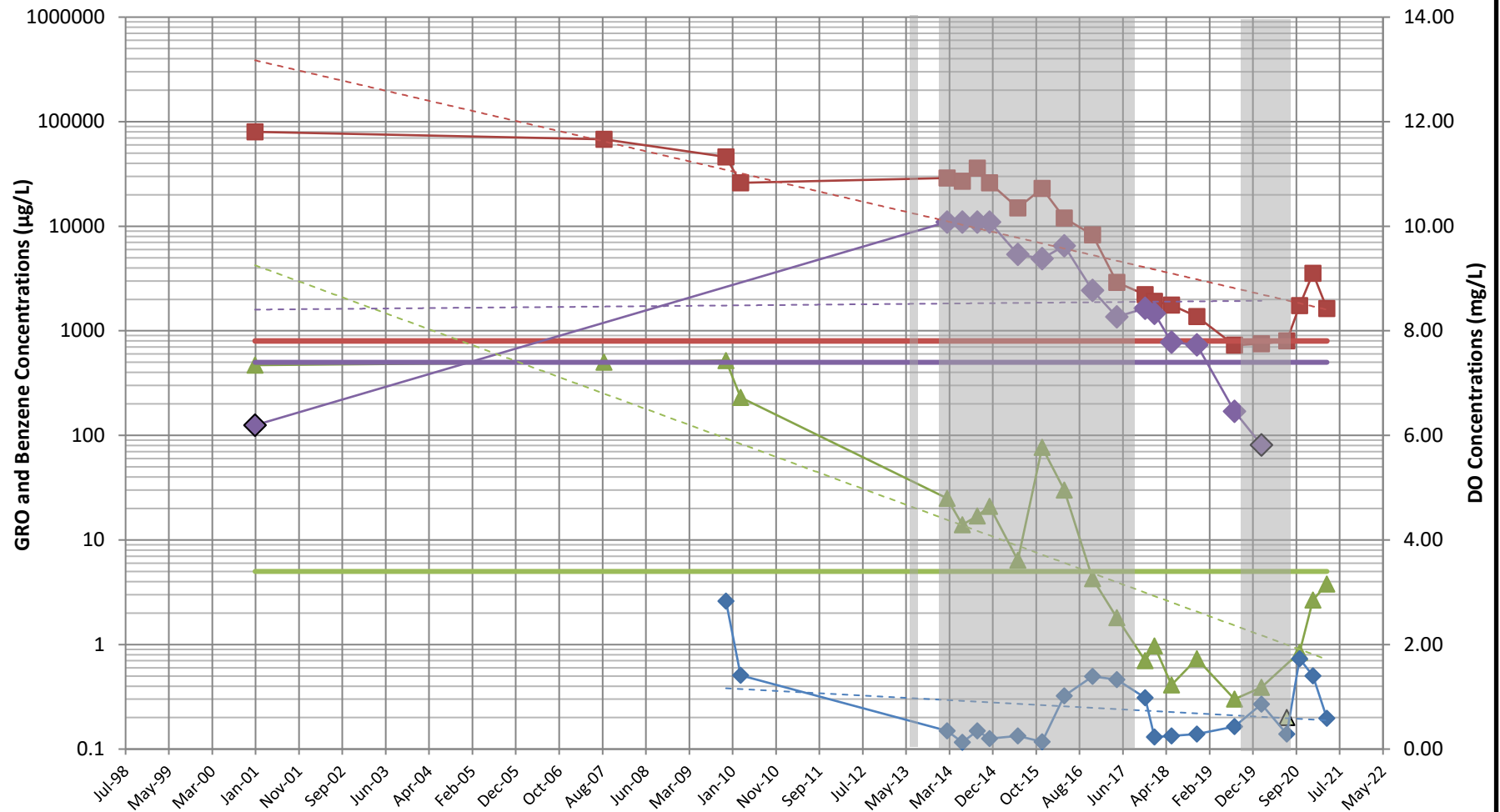
Table B-7
Summary of Groundwater Sampling Results - Well MW-18
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
11/01/07	360.45	54.19	306.26	NM	NM	NM	NM	NM	10.0	18.0	16.0	350	418	NA	NA	NA	0.44	NA	NA	NA
05/19/09	360.45	54.76	305.69	6.34	15.20	552.00	1.58	> 1,000	7.80	9.90	3.40	200.00	73.70	NA	NA	NA	NA	NA	NA	NA
12/07/09	360.45	55.05	305.40	6.61	13.60	484.00	0.26	NM	5.90	21.00	<4.0	420.00	49.30	<0.0096	6.30	150.00	NA	NA	NA	NA
03/16/10	360.45	54.83	305.62	6.44	12.90	565.00	0.18	21.00	5.40	17.00	2.00	310.00	59.20	<0.0096	28.00	120.00	NA	NA	NA	NA
11/08/18	360.45	52.40	308.05	7.18	14.00	290.00	2.49	NM	0.82	0.48	0.19 J	1.80	0.24 J	NA	NA	NA	1.00	<0.20	NA	NA
11/28/07	360.45	52.50	307.95	NM	NM	NM	NM	NM	79	2,900	7,500	1,600	6,290	NA	NA	NA	0.66	< 0.5 ^e	NA	NA
05/21/09	360.45	54.53	305.92	6.71	17.4	494	0.11	4.58	78	3,100	7,600	2,200	9,600	1.40	500	460	NA	NA	NA	NA
12/07/09	360.45	50.85	309.60	6.80	12.4	587	0.28	NM	44	2,200	5,400	1,600	6,690	1.90	180	380	NA	NA	NA	NA
03/18/10	360.45	50.58	309.87	6.69	14.2	586	0.11	5.39	52	2,600	6,000	1,700	6,690	2.5	350	420	NS	NS	NS	NS
02/12/14	360.45	49.01	311.44	7.62	13.8	175	8.11	2.89	1.0	27	13	17	91	< 0.08 ^f	1.1	4.0	0.77 J	<0.20	NA	NA
05/29/14	360.45	49.75	310.70	7.98	15.2	369	10.60	7.95	0.14	6.6	1.5	4.7	9.2	< 0.07 ^g	0.64	0.84 J+	0.33 J	<0.20	NA	NA
09/11/14	360.45	49.83	310.62	8.23	15.2	498	11.23	13.1	< 0.10	0.72	0.27	0.40	0.72	< 0.010	< 0.20	< 0.50	0.14	< 0.20	NA	NA
12/04/14	360.45	49.83	310.62	7.84	14.4	470	10.78	81.6	< 0.10	0.69	< 0.25	0.63	0.93	< 0.07 ^h	0.10 J	< 0.50	0.24	< 0.20	NA	NA
06/18/15	360.45	49.51	310.94	8.05	15.2	515	10.89	49.6	< 0.25	0.67	0.54	0.24	1.1	< 0.07 ^h	< 0.20	< 0.50	0.38	< 0.20	NA	NA
12/03/15	360.45	NM	NM	8.28	14.8	455	10.21	14.6	< 0.25	0.57	4.8	0.34	9.8	< 0.07 ^h	0.25	0.67	0.13	< 0.20	NA	NA
05/04/16	360.45	51.12	309.33	7.27	14.8	513	4.53	4.77	0.22	8.0	5.5	8.2	29	<0.20 ^h	1.5	1.5 J	0.37 J	<0.20	NA	NA
11/16/16	360.45	50.63	309.82	7.55	15.0	503	6.97	2.44	0.12	3.6	1.2	2.1	9.0	<0.20 ^h	0.39	<0.50	0.48	<0.20	NA	NA
05/03/17	360.45	50.12	310.33	7.19	15.6	313	4.54	3.57	0.28	6.9	3.1	6.8	21	<0.20 ^h	1.4	2.7	0.29	0.30	NA	NA
11/14/17	360.45	49.00	311.45	6.78	15.2	454	0.71	NM	1.3	3.6	1.6	7.4	8.7	<0.20 ^h	0.33	<0.50	4.4	0.43	NA	NA
01/16/18	360.45	48.62	311.83	6.12	14.4	22.7	6.23	18.1	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^h	<0.20	<0.50	<0.10	<0.20	NA	NA
03/09/18	360.45	48.35	312.10	6.69	14.4	479	0.28	1.89	1.9	NS	NS	NS	NS	NS	NS	NS	4.66	<0.20	NA	NA
05/16/18	360.45	47.94	312.51	6.42	15.2	405	0.21	1.41	1.5	6.2	2.2	20	19	<0.01	1.3	5.1	2.9	<0.20	NA	NA
11/07/18	360.45	48.14	312.31	6.82	15.1	506	0.17	2.50	1.5	6.6	1.1	24	2.8	<0.01	<0.20	7.0	3.3	<0.20	NA	NA
07/26/19	360.45	48.58	311.87	6.55	17.9	782	0.65	NM	1.2	1.3	0.3	1.2	2.4	<0.003	0.22	4.8	2.8	<0.20	<0.10	<0.20
01/30/20	360.45	50.03	310.42	7.51	13.5	27	7.14	NM	<0.10	<0.10	<0.50	<0.25	<0.75	<0.01	<1.0	<1.0	NA	NA	<0.080	<0.16
07/22/20	360.45	50.25	310.20	6.80	16.1	355	1.57	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
10/19/20	360.45	50.68	309.77	7.51	16.4	390	2.34	1.5	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
01/18/21	360.45	50.90	309.55	7.49	14.9	378	0.66	0.7	<0.10	0.7	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA
04/26/21	360.45	50.49	309.96	7.65	15.7	378	0.19	0.44	<0.10	0.51	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA
Notes:																				
Values in bold and red exceed MTCA Method A Cleanup Levels.																				
NS = Not sampled																				
NM = Not measured																				
NA = Not analyzed																				
mg/L = Milligrams per liter																				
µg/L = Micrograms per liter																				
NTU = Nephelometric turbidity unit																				
µmhos/cm = Micromhos per centimeter																				
°C = Degrees Celsius																				
J = Laboratory estimated value																				
DRO = Diesel-range organics																				
ORO = Oil-range organics																				
GRO = Gasoline-range organics																				
EDB = 1,2-dibromoethane																				
^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.																				
^b When benzene is present.																				
^c When benzene is not present.																				
^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).																				
^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.																				

Table B-9
Summary of Groundwater Sampling Results - Well PORT-MW-B
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
MTCA Method A Groundwater Cleanup Levels ^a									0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
11/01/07	400.00 ^e	54.19	345.81	NM	NM	NM	NM	NM	10.0	18.0	16.0	350	418	NA	NA	NA	0.44	NA	NA	NA
05/19/09	400.00 ^e	54.76	345.24	6.34	15.20	552.00	1.58	> 1,000	7.80	9.90	3.40	200.00	73.70	NA	NA	NA	NA	NA	NA	NA
12/07/09	400.00 ^e	55.05	344.95	6.61	13.60	484.00	0.26	NM	5.90	21.00	<4.0	420.00	49.30	<0.0096	6.30	150.00	NA	NA	NA	NA
03/16/10	400.00 ^e	54.83	345.17	6.44	12.90	565.00	0.18	21.00	5.40	17.00	2.00	310.00	59.20	<0.0096	28.00	120.00	NA	NA	NA	NA
11/08/18	400.00 ^e	52.40	347.60	7.18	14.00	290.00	2.49	NM	0.82	0.48	0.19 J	1.80	0.24 J	NA	NA	NA	1.00	<0.20	NA	NA
08/03/11	400.00 ^e	NM	NM	NM	NM	NM	NM	NM	0.20	1.3	< 1.0	13	3.4	< 0.01	< 1.0	13	0.28	< 0.25	NA	NA
03/20/14	400.00 ^e	89.70	310.30 ^f	6.55	12.3	267	6.16	NM	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^g	< 0.20	< 0.50 J	< 0.10	< 0.20	NA	NA
05/28/14	400.00 ^e	89.50	310.50 ^f	6.50	14.2	317	4.63	98.3	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
09/12/14	400.00 ^e	89.71	310.29 ^f	6.56	14.0	266	3.56	6.18	< 0.10	< 0.25	< 0.25	1.1	1.9	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/05/14	400.00 ^e	89.71	310.29 ^f	6.57	12.6	265	4.07	84.1	0.11	< 0.25	< 0.25	1.1	1.0	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
06/25/15	400.00 ^e	89.67	310.33 ^f	6.51	14.3	290	3.80	4.18	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/02/15	400.00 ^e	91.61	308.39 ^f	6.56	13.0	267	2.34	1.79	< 0.25	< 0.20	< 0.20	0.26	0.40 J	< 0.07 ^g	< 0.20	2.3 J	< 0.10	0.49	NA	NA
05/04/16	400.00 ^e	90.55	309.45 ^f	6.72	13.2	219	2.59	7.38	<0.10	0.08 J	<0.20	0.74	0.50	<0.20 ^h	<0.20	0.83 J	<0.10	<0.20	NA	NA
11/16/16	400.00 ^e	90.31	309.69 ^f	6.70	13.1	192	3.97	11.7	<0.10	0.03 J	<0.20	0.04 J	<0.40	<0.20 ^h	<0.20	<0.50	<0.10	<0.20	NA	NA
05/02/17	400.00 ^e	89.65	310.35 ^f	6.54	12.9	107	3.85	2.63	<0.10	0.21	<0.20	1.2	<0.40	<0.20 ^h	<0.20	1.4	<0.10	<0.20	NA	NA
11/15/17	400.00 ^e	88.67	311.33 ^f	6.78	13.0	199	5.09	2.42	<0.10	<0.20	<0.20	0.36	<0.40	<0.20 ^h	<0.20	<0.50	<0.10	<0.20	NA	NA
01/18/18	400.00 ^e	88.17	311.83 ^f	6.82	12.6	173	1.39	3.43	0.15	0.47	<0.20	2.7	<0.40	<0.20 ^h	<0.20	3.2	0.17	<0.20	NA	NA
03/09/18	400.00 ^e	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
05/16/18	400.00 ^e	87.64	312.36 ^f	6.40	13.8	103	3.36	2.35	<0.10	<0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	<0.10	<0.20	NA	NA
11/07/18	400.00 ^e	87.91	312.09 ^f	6.80	13.1	103	4.92	1.29	<0.10	<0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	<0.10	<0.20	NA	NA
08/08/19	400.00 ^e	90.12	310.73 ^f	6.80	13.7	228	2.99	NM	<0.10	<0.20	<0.20	<0.20	<0.60	<0.003	0.11 J	<0.50	0.14	<0.20	<0.10	<0.20
01/29/20	399.83	105.60	294.23	6.66	12.0	166	8.70	NM	<0.10	<0.10	<0.50	<0.25	<0.75	<0.01	<1.0	<1.0	NA	NA	NA	NA
07/21/20	399.83	89.77	310.06	5.37	14.5	174	3.15	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
10/19/20	399.83	90.30	309.53	6.22	15.0	194	1.14	3.27	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
01/18/21	399.83	90.61	309.22	6.31	12.3	209	3.75	14.50	<0.10	<0.20	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA
04/26/21	399.83	90.12	309.71	6.80	13.7	228	2.99	62.60	<0.10	0.22	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA
Notes: Values in bold and red exceed MTCA Method A Cleanup Levels. NS = Not sampled NM = Not measured NA = Not analyzed mg/L = Milligrams per liter µg/L = Micrograms per liter NTU = Nephelometric turbidity unit µmhos/cm = Micromhos per centimeter °C = Degrees Celsius J = Laboratory estimated value DRO = Diesel-range organics ORO = Oil-range organics GRO = Gasoline-range organics EDB = 1,2-dibromoethane ^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater. ^b When benzene is present. ^c When benzene is not present. ^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019). ^e Top of casing elevation was not surveyed; elevation was estimated by Golder Associates, Inc. ^f Estimated elevation. ^g The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.																				

MW-07

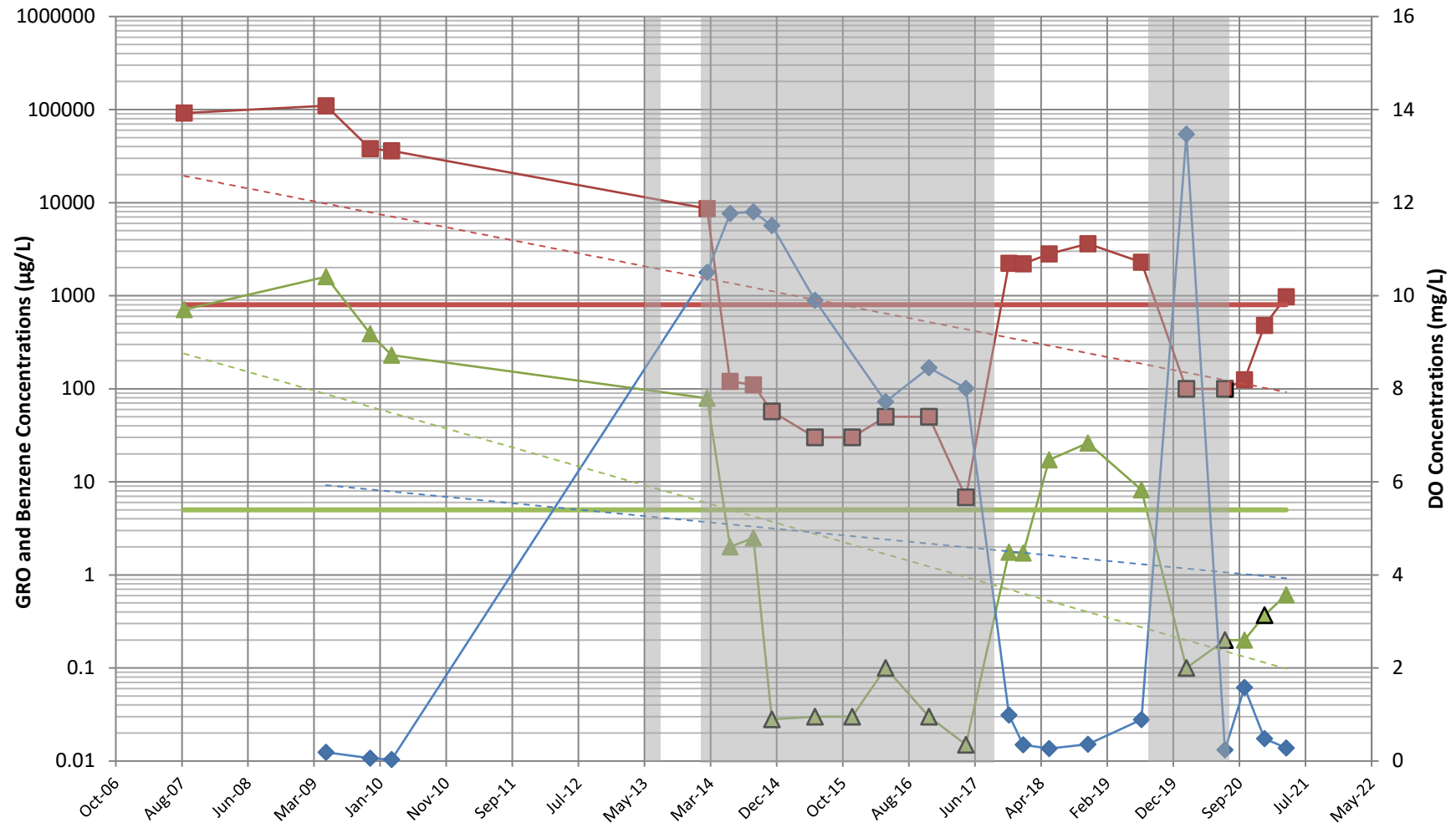


Legend

- GRO Concentrations
- ▲ Benzene Concentrations
- Benzene Cleanup Level (5 ug/L)
- ◆ DRO Non-Detects
- Dissolved Oxygen (DO) Concentrations
- Benzene Trendline
- DO Trendline
- GRO Cleanup Level (800 ug/L)
- ▲ Benzene Non-Detects
- ◆ DRO Concentrations
- DRO Cleanup Level (500 ug/L)
- GRO Trendline
- DRO Trendline
- IAS - SVE system operating

FIGURE B-1
GRO and Benzene Concentrations in MW-07
SeaTac Development Site

MW-12

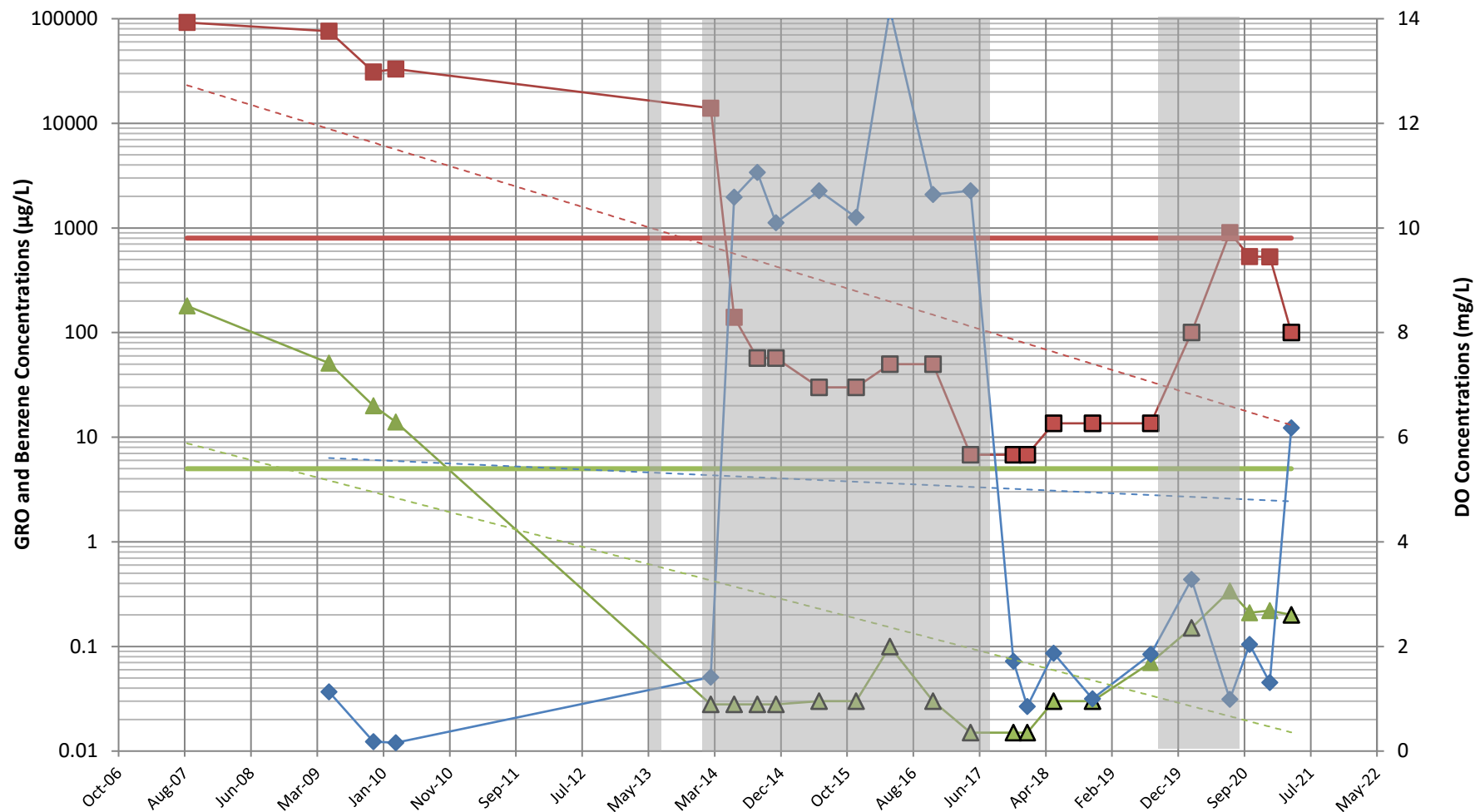


Legend

- GRO Concentrations
- GRO Non-Detects
- GRO Cleanup Level (800 µg/L)
- ▲ Benzene Concentrations
- Benzene Non-Detects
- Benzene Cleanup Level (5 µg/L)
- ◆ Dissolved Oxygen (DO) Concentrations
- Benzene Trendline
- DO Trendline
- IAS - SVE system operating

FIGURE B-2
GRO and Benzene Concentrations in MW-12
SeaTac Development Site

MW-13

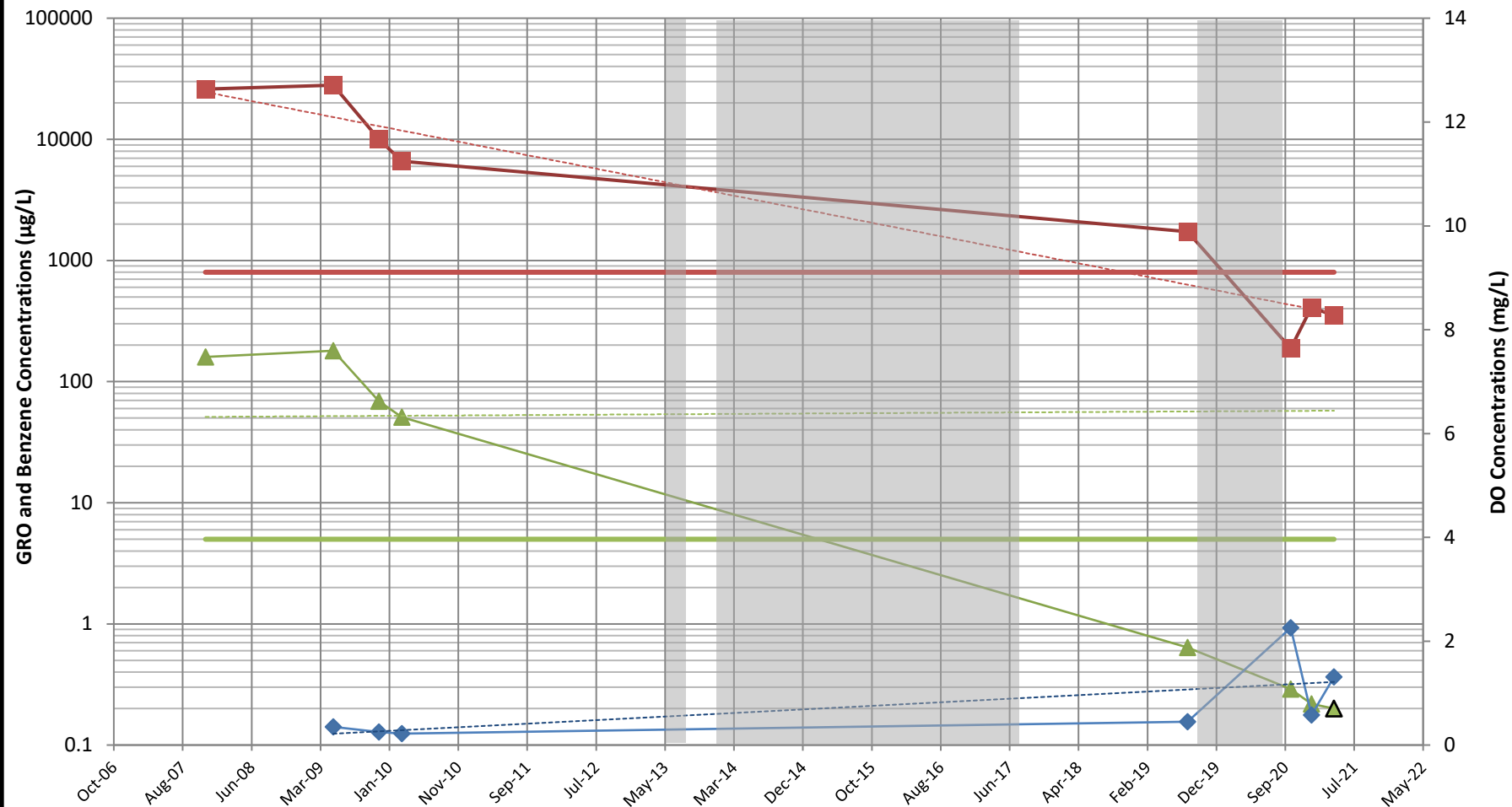


Legend

- GRO Concentrations
- GRO Non-Detects
- GRO Cleanup Level (800 ug/L)
- ▲ Benzene Concentrations
- Benzene Cleanup Level (5 ug/L)
- ◆ Dissolved Oxygen (DO) Concentrations
- - - GRO Trendline
- - - Benzene Trendline
- - - DO Trendline
- IAS - SVE system operating

FIGURE B-3
GRO and Benzene Concentrations in
MW-13
SeaTac Development Site

MW-16



Legend

- GRO Concentrations
- ▲ Benzene Concentrations
- ▲ Benzene Non-Detects
- - - GRO Trendline
- - - DO Trendline
- IAS - SVE system operating
- GRO Cleanup Level (800 µg/L)
- Benzene Cleanup Level (5 µg/L)
- ◆ Dissolved Oxygen (DO) Concentrations
- - - Benzene Trendline

FIGURE B-4
GRO and Benzene Concentrations in
MW-16
SeaTac Development Site

MW-17A

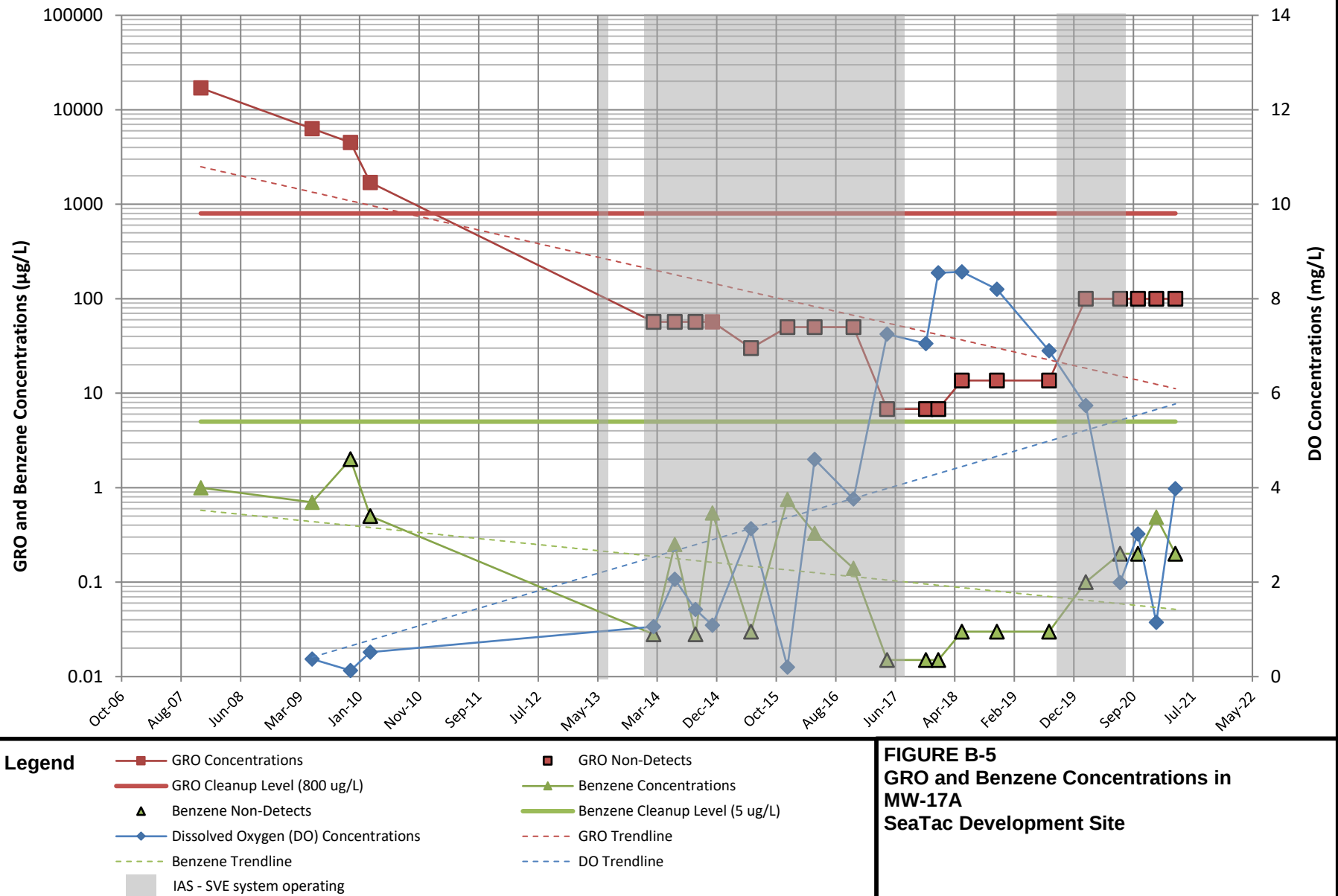
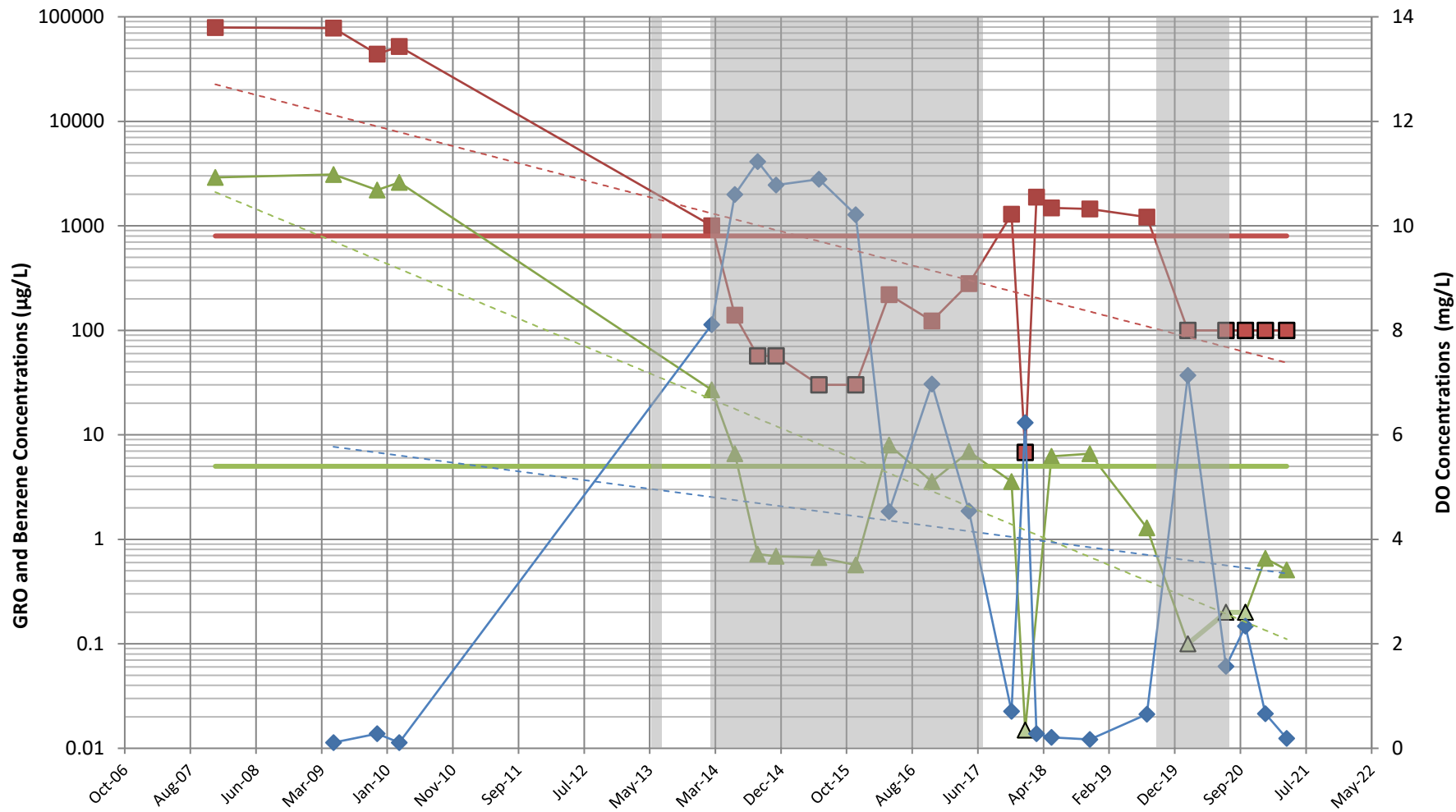


FIGURE B-5
GRO and Benzene Concentrations in
MW-17A
SeaTac Development Site

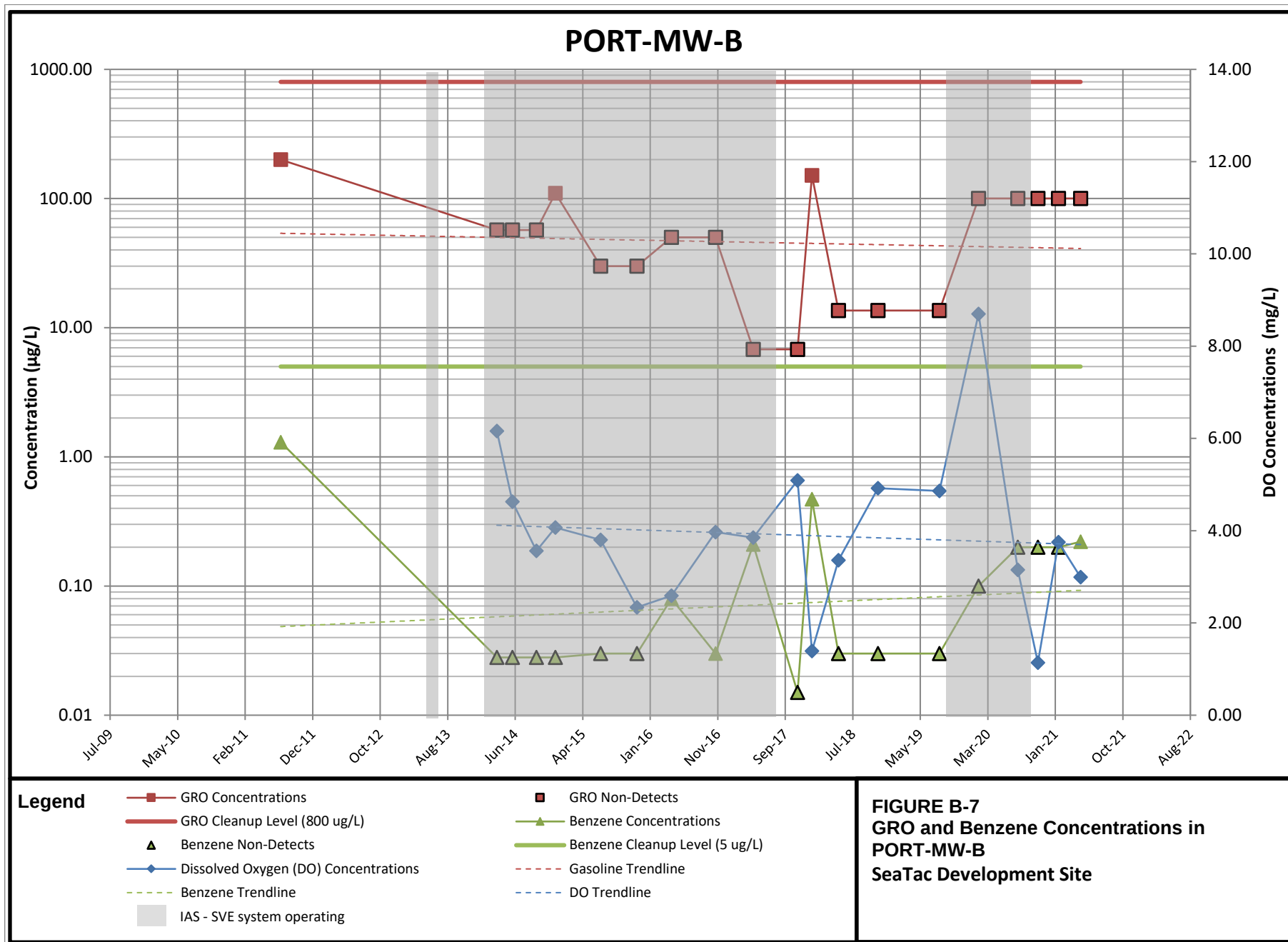
MW-18



Legend

- GRO Concentrations
- GRO Non-Detects
- GRO Cleanup Level (800 µg/L)
- Benzene Concentrations
- Benzene Non-Detects
- Benzene Cleanup Level (5 µg/L)
- ◆ Dissolved Oxygen (DO) Concentrations
- GRO Trendline
- Benzene Trendline
- DO Trendline
- IAS - SVE system operating

FIGURE B-6
GRO and Benzene Concentrations in
MW-18
SeaTac Development Site



APPENDIX C

LABORATORY REPORTS



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Wednesday, May 12, 2021

Mike Staton
SLR Corporation-Bothell
22118 20th Ave SE
Bothell, WA 98021

RE: A1D1053 - Sea-Tac Development Site - 128.02207.00002

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1D1053, which was received by the laboratory on 4/27/2021 at 10:42:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: ldomenighini@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1

4.2 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Lisa Domenighini, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

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

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-7-0421	A1D1053-01	Water	04/26/21 14:36	04/27/21 10:42
MW-12-0421	A1D1053-02	Water	04/26/21 13:00	04/27/21 10:42
MW-13-0421	A1D1053-03	Water	04/26/21 17:03	04/27/21 10:42
MW-16-0421	A1D1053-04	Water	04/26/21 15:29	04/27/21 10:42
MW-17A-0421	A1D1053-05	Water	04/26/21 16:17	04/27/21 10:42
MW-18-0421	A1D1053-06	Water	04/26/21 13:51	04/27/21 10:42
Port-MW-B-0421	A1D1053-07	Water	04/26/21 11:15	04/27/21 10:42
MW-37-0421	A1D1053-08	Water	04/26/21 14:36	04/27/21 10:42
Equip-Blank-0421	A1D1053-09	Water	04/26/21 17:05	04/27/21 10:42
Trip Blank	A1D1053-10	Water	04/26/21 00:00	04/27/21 10:42

Apex Laboratories

Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL CASE NARRATIVE

Work Order: A1D1053

Subcontract

This report is not complete without the attached subcontract laboratory report for Dissolved Methane by RSK 175 from Calscience/Eurofins.

Apex Laboratories

Lisa Domenighini, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
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ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-7-0421 (A1D1053-01)				Matrix: Water		Batch: 1040965		
Gasoline Range Organics	1630	---	100	ug/L	1	04/27/21 16:54	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	104 %	Limits: 50-150 %	1	04/27/21 16:54	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			101 %	50-150 %	1	04/27/21 16:54	NWTPH-Gx (MS)	
MW-12-0421 (A1D1053-02)				Matrix: Water		Batch: 1040965		
Gasoline Range Organics	974	---	100	ug/L	1	04/27/21 17:21	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	103 %	Limits: 50-150 %	1	04/27/21 17:21	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			103 %	50-150 %	1	04/27/21 17:21	NWTPH-Gx (MS)	
MW-13-0421 (A1D1053-03)				Matrix: Water		Batch: 1040965		
Gasoline Range Organics	ND	---	100	ug/L	1	04/27/21 17:48	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	98 %	Limits: 50-150 %	1	04/27/21 17:48	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			101 %	50-150 %	1	04/27/21 17:48	NWTPH-Gx (MS)	
MW-16-0421 (A1D1053-04)				Matrix: Water		Batch: 1040965		
Gasoline Range Organics	351	---	100	ug/L	1	04/27/21 18:15	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	101 %	Limits: 50-150 %	1	04/27/21 18:15	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			101 %	50-150 %	1	04/27/21 18:15	NWTPH-Gx (MS)	
MW-17A-0421 (A1D1053-05)				Matrix: Water		Batch: 1040965		
Gasoline Range Organics	ND	---	100	ug/L	1	04/27/21 18:42	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	95 %	Limits: 50-150 %	1	04/27/21 18:42	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			104 %	50-150 %	1	04/27/21 18:42	NWTPH-Gx (MS)	
MW-18-0421 (A1D1053-06)				Matrix: Water		Batch: 1040965		
Gasoline Range Organics	ND	---	100	ug/L	1	04/27/21 20:30	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	95 %	Limits: 50-150 %	1	04/27/21 20:30	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			104 %	50-150 %	1	04/27/21 20:30	NWTPH-Gx (MS)	
Port-MW-B-0421 (A1D1053-07)				Matrix: Water		Batch: 1041031		
Gasoline Range Organics	ND	---	100	ug/L	1	04/28/21 14:46	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	98 %	Limits: 50-150 %	1	04/28/21 14:46	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			107 %	50-150 %	1	04/28/21 14:46	NWTPH-Gx (MS)	
MW-37-0421 (A1D1053-08)				Matrix: Water		Batch: 1041031		
Gasoline Range Organics	1610	---	100	ug/L	1	04/28/21 15:40	NWTPH-Gx (MS)	

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Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-37-0421 (A1D1053-08)				Matrix: Water		Batch: 1041031		
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 107 %	Limits: 50-150 %	1	04/28/21 15:40	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		103 %	50-150 %	1	04/28/21 15:40	NWTPH-Gx (MS)		
Equip-Blank-0421 (A1D1053-09)				Matrix: Water		Batch: 1040965		
Gasoline Range Organics	ND	---	100	ug/L	1	04/27/21 16:27	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 99 %	Limits: 50-150 %	1	04/27/21 16:27	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		104 %	50-150 %	1	04/27/21 16:27	NWTPH-Gx (MS)		
Trip Blank (A1D1053-10)				Matrix: Water		Batch: 1040965		
Gasoline Range Organics	ND	---	100	ug/L	1	04/27/21 16:00	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 100 %	Limits: 50-150 %	1	04/27/21 16:00	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		103 %	50-150 %	1	04/27/21 16:00	NWTPH-Gx (MS)		

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Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-7-0421 (A1D1053-01)		Matrix: Water		Batch: 1040965				
Benzene	3.77	---	0.200	ug/L	1	04/27/21 16:54	EPA 8260D	
Toluene	3.23	---	1.00	ug/L	1	04/27/21 16:54	EPA 8260D	
Ethylbenzene	14.0	---	0.500	ug/L	1	04/27/21 16:54	EPA 8260D	
Xylenes, total	26.0	---	1.50	ug/L	1	04/27/21 16:54	EPA 8260D	
Naphthalene	7.84	---	2.00	ug/L	1	04/27/21 16:54	EPA 8260D	
n-Hexane	5.28	---	2.00	ug/L	1	04/27/21 16:54	EPA 8260D	E-05
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	104 %	Limits:	80-120 %	1	04/27/21 16:54	EPA 8260D
Toluene-d8 (Surr)			101 %		80-120 %	1	04/27/21 16:54	EPA 8260D
4-Bromofluorobenzene (Surr)			93 %		80-120 %	1	04/27/21 16:54	EPA 8260D
MW-12-0421 (A1D1053-02)		Matrix: Water		Batch: 1040965				
Benzene	0.610	---	0.200	ug/L	1	04/27/21 17:21	EPA 8260D	
Toluene	8.84	---	1.00	ug/L	1	04/27/21 17:21	EPA 8260D	
Ethylbenzene	42.9	---	0.500	ug/L	1	04/27/21 17:21	EPA 8260D	
Xylenes, total	66.8	---	1.50	ug/L	1	04/27/21 17:21	EPA 8260D	
Naphthalene	22.4	---	2.00	ug/L	1	04/27/21 17:21	EPA 8260D	
n-Hexane	20.8	---	2.00	ug/L	1	04/27/21 17:21	EPA 8260D	E-05
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits:	80-120 %	1	04/27/21 17:21	EPA 8260D
Toluene-d8 (Surr)			103 %		80-120 %	1	04/27/21 17:21	EPA 8260D
4-Bromofluorobenzene (Surr)			94 %		80-120 %	1	04/27/21 17:21	EPA 8260D
MW-13-0421 (A1D1053-03)		Matrix: Water		Batch: 1040965				
Benzene	ND	---	0.200	ug/L	1	04/27/21 17:48	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	04/27/21 17:48	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	04/27/21 17:48	EPA 8260D	
Xylenes, total	3.73	---	1.50	ug/L	1	04/27/21 17:48	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	04/27/21 17:48	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	04/27/21 17:48	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	108 %	Limits:	80-120 %	1	04/27/21 17:48	EPA 8260D
Toluene-d8 (Surr)			105 %		80-120 %	1	04/27/21 17:48	EPA 8260D
4-Bromofluorobenzene (Surr)			98 %		80-120 %	1	04/27/21 17:48	EPA 8260D
MW-16-0421 (A1D1053-04)		Matrix: Water		Batch: 1040965				
Benzene	ND	---	0.200	ug/L	1	04/27/21 18:15	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	04/27/21 18:15	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	04/27/21 18:15	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	04/27/21 18:15	EPA 8260D	

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Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

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

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-16-0421 (A1D1053-04)				Matrix: Water		Batch: 1040965		
Naphthalene	ND	---	2.00	ug/L	1	04/27/21 18:15	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	04/27/21 18:15	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits:	80-120 %	1	04/27/21 18:15	EPA 8260D
Toluene-d8 (Surr)			102 %		80-120 %	1	04/27/21 18:15	EPA 8260D
4-Bromofluorobenzene (Surr)			97 %		80-120 %	1	04/27/21 18:15	EPA 8260D
MW-17A-0421 (A1D1053-05)				Matrix: Water		Batch: 1040965		
Benzene	ND	---	0.200	ug/L	1	04/27/21 18:42	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	04/27/21 18:42	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	04/27/21 18:42	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	04/27/21 18:42	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	04/27/21 18:42	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	04/27/21 18:42	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	107 %	Limits:	80-120 %	1	04/27/21 18:42	EPA 8260D
Toluene-d8 (Surr)			103 %		80-120 %	1	04/27/21 18:42	EPA 8260D
4-Bromofluorobenzene (Surr)			103 %		80-120 %	1	04/27/21 18:42	EPA 8260D
MW-18-0421 (A1D1053-06)				Matrix: Water		Batch: 1040965		
Benzene	0.510	---	0.200	ug/L	1	04/27/21 20:30	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	04/27/21 20:30	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	04/27/21 20:30	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	04/27/21 20:30	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	04/27/21 20:30	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	04/27/21 20:30	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	110 %	Limits:	80-120 %	1	04/27/21 20:30	EPA 8260D
Toluene-d8 (Surr)			103 %		80-120 %	1	04/27/21 20:30	EPA 8260D
4-Bromofluorobenzene (Surr)			99 %		80-120 %	1	04/27/21 20:30	EPA 8260D
Port-MW-B-0421 (A1D1053-07)				Matrix: Water		Batch: 1041031		
Benzene	0.220	---	0.200	ug/L	1	04/28/21 14:46	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	04/28/21 14:46	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	04/28/21 14:46	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	04/28/21 14:46	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	04/28/21 14:46	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	04/28/21 14:46	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	111 %	Limits:	80-120 %	1	04/28/21 14:46	EPA 8260D
Toluene-d8 (Surr)			103 %		80-120 %	1	04/28/21 14:46	EPA 8260D

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Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Port-MW-B-0421 (A1D1053-07)				Matrix: Water		Batch: 1041031		
Surrogate: 4-Bromofluorobenzene (Surr)		Recovery:	102 %	Limits:	80-120 %	1	04/28/21 14:46	EPA 8260D
MW-37-0421 (A1D1053-08)				Matrix: Water		Batch: 1041031		
Benzene	3.99	---	0.200	ug/L	1	04/28/21 15:40	EPA 8260D	
Toluene	3.06	---	1.00	ug/L	1	04/28/21 15:40	EPA 8260D	
Ethylbenzene	14.3	---	0.500	ug/L	1	04/28/21 15:40	EPA 8260D	
Xylenes, total	24.2	---	1.50	ug/L	1	04/28/21 15:40	EPA 8260D	
Naphthalene	7.95	---	2.00	ug/L	1	04/28/21 15:40	EPA 8260D	
n-Hexane	4.67	---	2.00	ug/L	1	04/28/21 15:40	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits:	80-120 %	1	04/28/21 15:40	EPA 8260D
Toluene-d8 (Surr)			101 %		80-120 %	1	04/28/21 15:40	EPA 8260D
4-Bromofluorobenzene (Surr)			94 %		80-120 %	1	04/28/21 15:40	EPA 8260D
Equip-Blank-0421 (A1D1053-09)				Matrix: Water		Batch: 1040965		
Benzene	ND	---	0.200	ug/L	1	04/27/21 16:27	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	04/27/21 16:27	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	04/27/21 16:27	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	04/27/21 16:27	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	107 %	Limits:	80-120 %	1	04/27/21 16:27	EPA 8260D
Toluene-d8 (Surr)			104 %		80-120 %	1	04/27/21 16:27	EPA 8260D
4-Bromofluorobenzene (Surr)			100 %		80-120 %	1	04/27/21 16:27	EPA 8260D
Trip Blank (A1D1053-10)				Matrix: Water		Batch: 1040965		
Benzene	ND	---	0.200	ug/L	1	04/27/21 16:00	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	04/27/21 16:00	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	04/27/21 16:00	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	04/27/21 16:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	107 %	Limits:	80-120 %	1	04/27/21 16:00	EPA 8260D
Toluene-d8 (Surr)			101 %		80-120 %	1	04/27/21 16:00	EPA 8260D
4-Bromofluorobenzene (Surr)			97 %		80-120 %	1	04/27/21 16:00	EPA 8260D

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Page 8 of 37

Page 8 of 53



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

1,2-Dibromoethane (EDB) by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-7-0421 (A1D1053-01)								
				Matrix: Water		Batch: 1040993		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/28/21 17:06	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	103 %	Limits: 70-130 %	1	04/28/21 17:06	EPA 8260D SIM	
Toluene-d8 (Surr)			98 %	70-130 %	1	04/28/21 17:06	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			79 %	70-130 %	1	04/28/21 17:06	EPA 8260D SIM	
MW-12-0421 (A1D1053-02)								
				Matrix: Water		Batch: 1040993		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/28/21 17:33	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	106 %	Limits: 70-130 %	1	04/28/21 17:33	EPA 8260D SIM	
Toluene-d8 (Surr)			99 %	70-130 %	1	04/28/21 17:33	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			79 %	70-130 %	1	04/28/21 17:33	EPA 8260D SIM	
MW-13-0421 (A1D1053-03)								
				Matrix: Water		Batch: 1040993		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/28/21 18:00	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	103 %	Limits: 70-130 %	1	04/28/21 18:00	EPA 8260D SIM	
Toluene-d8 (Surr)			95 %	70-130 %	1	04/28/21 18:00	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			82 %	70-130 %	1	04/28/21 18:00	EPA 8260D SIM	
MW-16-0421 (A1D1053-04)								
				Matrix: Water		Batch: 1040993		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/28/21 18:26	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits: 70-130 %	1	04/28/21 18:26	EPA 8260D SIM	
Toluene-d8 (Surr)			101 %	70-130 %	1	04/28/21 18:26	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			82 %	70-130 %	1	04/28/21 18:26	EPA 8260D SIM	
MW-17A-0421 (A1D1053-05)								
				Matrix: Water		Batch: 1040993		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/28/21 18:53	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	103 %	Limits: 70-130 %	1	04/28/21 18:53	EPA 8260D SIM	
Toluene-d8 (Surr)			95 %	70-130 %	1	04/28/21 18:53	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			84 %	70-130 %	1	04/28/21 18:53	EPA 8260D SIM	
MW-18-0421 (A1D1053-06)								
				Matrix: Water		Batch: 1040993		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/28/21 19:20	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	102 %	Limits: 70-130 %	1	04/28/21 19:20	EPA 8260D SIM	
Toluene-d8 (Surr)			96 %	70-130 %	1	04/28/21 19:20	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			84 %	70-130 %	1	04/28/21 19:20	EPA 8260D SIM	
Port-MW-B-0421 (A1D1053-07)								
				Matrix: Water		Batch: 1040993		

Apex Laboratories

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ANALYTICAL REPORT

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22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

1,2-Dibromoethane (EDB) by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Port-MW-B-0421 (A1D1053-07)				Matrix: Water		Batch: 1040993		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/28/21 19:46	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	103 %	Limits:	70-130 %	1	04/28/21 19:46	EPA 8260D SIM
Toluene-d8 (Surr)			96 %		70-130 %	1	04/28/21 19:46	EPA 8260D SIM
4-Bromofluorobenzene (Surr)			84 %		70-130 %	1	04/28/21 19:46	EPA 8260D SIM
MW-37-0421 (A1D1053-08)				Matrix: Water		Batch: 1040993		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/28/21 20:13	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits:	70-130 %	1	04/28/21 20:13	EPA 8260D SIM
Toluene-d8 (Surr)			98 %		70-130 %	1	04/28/21 20:13	EPA 8260D SIM
4-Bromofluorobenzene (Surr)			79 %		70-130 %	1	04/28/21 20:13	EPA 8260D SIM

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002
Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-0421 (A1D1053-02RE2)				Matrix: Water				
Batch: 1041094								
Iron	73.8	---	50.0	ug/L	1	05/01/21 21:09	EPA 6020B	
Manganese	2140	---	1.00	ug/L	1	05/01/21 21:09	EPA 6020B	
MW-16-0421 (A1D1053-04RE2)				Matrix: Water				
Batch: 1041094								
Iron	86.0	---	50.0	ug/L	1	05/01/21 21:14	EPA 6020B	
Manganese	221	---	1.00	ug/L	1	05/01/21 21:14	EPA 6020B	
MW-18-0421 (A1D1053-06)				Matrix: Water				
Batch: 1050188								
Iron	ND	---	50.0	ug/L	1	05/06/21 17:53	EPA 6020B	
Manganese	487	---	1.00	ug/L	1	05/06/21 17:53	EPA 6020B	
Port-MW-B-0421 (A1D1053-07)				Matrix: Water				
Batch: 1050188								
Iron	2610	---	50.0	ug/L	1	05/06/21 17:57	EPA 6020B	
Manganese	161	---	1.00	ug/L	1	05/06/21 17:57	EPA 6020B	

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SLR Corporation-Bothell

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Bothell, WA 98021

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Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-0421 (A1D1053-02)				Matrix: Water				
Batch: 1050287								
Iron	ND	---	50.0	ug/L	1	05/11/21 06:00	EPA 6020B (Diss)	
Manganese	1800	---	1.00	ug/L	1	05/11/21 06:00	EPA 6020B (Diss)	
MW-16-0421 (A1D1053-04)				Matrix: Water				
Batch: 1050287								
Iron	ND	---	50.0	ug/L	1	05/11/21 06:05	EPA 6020B (Diss)	
Manganese	179	---	1.00	ug/L	1	05/11/21 06:05	EPA 6020B (Diss)	
MW-18-0421 (A1D1053-06)				Matrix: Water				
Batch: 1050287								
Iron	ND	---	50.0	ug/L	1	05/11/21 06:09	EPA 6020B (Diss)	
Manganese	340	---	1.00	ug/L	1	05/11/21 06:09	EPA 6020B (Diss)	
Port-MW-B-0421 (A1D1053-07)				Matrix: Water				
Batch: 1050287								
Iron	ND	---	50.0	ug/L	1	05/11/21 06:14	EPA 6020B (Diss)	
Manganese	40.9	---	1.00	ug/L	1	05/11/21 06:14	EPA 6020B (Diss)	

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ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

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A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-0421 (A1D1053-02)				Matrix: Water				
Batch: 1041003								
Nitrate-Nitrogen	ND	---	0.250	mg/L	1	04/27/21 20:28	EPA 300.0	
Sulfate	7.50	---	1.00	mg/L	1	04/27/21 20:28	EPA 300.0	
MW-16-0421 (A1D1053-04)				Matrix: Water				
Batch: 1041003								
Nitrate-Nitrogen	ND	---	0.250	mg/L	1	04/27/21 21:33	EPA 300.0	
Sulfate	6.27	---	1.00	mg/L	1	04/27/21 21:33	EPA 300.0	
MW-18-0421 (A1D1053-06)				Matrix: Water				
Batch: 1041003								
Nitrate-Nitrogen	ND	---	0.250	mg/L	1	04/27/21 21:54	EPA 300.0	
Sulfate	36.1	---	1.00	mg/L	1	04/27/21 21:54	EPA 300.0	
Port-MW-B-0421 (A1D1053-07)				Matrix: Water				
Batch: 1041003								
Nitrate-Nitrogen	5.29	---	0.250	mg/L	1	04/27/21 22:16	EPA 300.0	
Sulfate	13.4	---	1.00	mg/L	1	04/27/21 22:16	EPA 300.0	

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503-718-2323
ORELAP ID: OR100062SLR Corporation-Bothell22118 20th Ave SE
Bothell, WA 98021Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-0421 (A1D1053-02)				Matrix: Water		Batch: 1050168		
Total Organic Carbon	8.98	---	1.00	mg/L	1	05/06/21 18:27	SM 5310 C	
MW-16-0421 (A1D1053-04)				Matrix: Water		Batch: 1050168		
Total Organic Carbon	ND	---	1.00	mg/L	1	05/06/21 19:58	SM 5310 C	
MW-18-0421 (A1D1053-06)				Matrix: Water		Batch: 1050168		
Total Organic Carbon	2.98	---	1.00	mg/L	1	05/06/21 20:29	SM 5310 C	
Port-MW-B-0421 (A1D1053-07)				Matrix: Water		Batch: 1050168		
Total Organic Carbon	ND	---	1.00	mg/L	1	05/06/21 21:00	SM 5310 C	

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ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **128.02207.00002**

Project Manager: **Mike Staton**

Report ID:

A1D1053 - 05 12 21 1338

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-0421 (A1D1053-02)				Matrix: Water				
Batch: 1041093								
Total Alkalinity	80.2	---	20.0	mg CaCO3/L	1	04/29/21 13:46	SM 2320 B	
MW-16-0421 (A1D1053-04)				Matrix: Water				
Batch: 1041093								
Total Alkalinity	25.9	---	20.0	mg CaCO3/L	1	04/29/21 13:53	SM 2320 B	
MW-18-0421 (A1D1053-06)				Matrix: Water				
Batch: 1041093								
Total Alkalinity	145	---	20.0	mg CaCO3/L	1	04/29/21 13:58	SM 2320 B	
Port-MW-B-0421 (A1D1053-07)				Matrix: Water				
Batch: 1041093								
Total Alkalinity	20.0	---	20.0	mg CaCO3/L	1	04/29/21 14:06	SM 2320 B	

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ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040965 - EPA 5030B Water												
Blank (1040965-BLK1) Prepared: 04/27/21 08:00 Analyzed: 04/27/21 11:00												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			Recovery: 97 %	Limits: 50-150 %			Dilution: 1x					
1,4-Difluorobenzene (Sur)			106 %	50-150 %			"					
LCS (1040965-BS2) Prepared: 04/27/21 08:00 Analyzed: 04/27/21 10:33												
NWTPH-Gx (MS)												
Gasoline Range Organics	559	---	100	ug/L	1	500	---	112	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			Recovery: 103 %	Limits: 50-150 %			Dilution: 1x					
1,4-Difluorobenzene (Sur)			102 %	50-150 %			"					
Duplicate (1040965-DUP2) Prepared: 04/27/21 09:27 Analyzed: 04/27/21 19:09												
QC Source Sample: MW-17A-0421 (A1D1053-05)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			Recovery: 95 %	Limits: 50-150 %			Dilution: 1x					
1,4-Difluorobenzene (Sur)			104 %	50-150 %			"					
Batch 1041031 - EPA 5030B Water												
Blank (1041031-BLK1) Prepared: 04/28/21 09:00 Analyzed: 04/28/21 13:25												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			Recovery: 100 %	Limits: 50-150 %			Dilution: 1x					
1,4-Difluorobenzene (Sur)			108 %	50-150 %			"					
LCS (1041031-BS2) Prepared: 04/28/21 09:00 Analyzed: 04/28/21 12:31												
NWTPH-Gx (MS)												
Gasoline Range Organics	534	---	100	ug/L	1	500	---	107	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			Recovery: 105 %	Limits: 50-150 %			Dilution: 1x					
1,4-Difluorobenzene (Sur)			102 %	50-150 %			"					
Duplicate (1041031-DUP1) Prepared: 04/28/21 12:57 Analyzed: 04/28/21 15:13												

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503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041031 - EPA 5030B							Water					
Duplicate (1041031-DUP1)		Prepared: 04/28/21 12:57 Analyzed: 04/28/21 15:13										
QC Source Sample: Port-MW-B-0421 (A1D1053-07)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 99 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		108 %		50-150 %		"						

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040965 - EPA 5030B												
Water												
Blank (1040965-BLK1)												
Prepared: 04/27/21 08:00 Analyzed: 04/27/21 11:00												
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Hexane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>												
<i>Recovery: 111 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr)</i>												
<i>103 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr)</i>												
<i>102 % 80-120 % "</i>												
LCS (1040965-BS1)												
Prepared: 04/27/21 08:00 Analyzed: 04/27/21 09:07												
EPA 8260D												
Benzene	22.3	---	0.200	ug/L	1	20.0	---	112	80 - 120%	---	---	
Toluene	20.2	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
Ethylbenzene	21.1	---	0.500	ug/L	1	20.0	---	106	80 - 120%	---	---	
Xylenes, total	65.0	---	1.50	ug/L	1	60.0	---	108	80 - 120%	---	---	
Naphthalene	20.6	---	2.00	ug/L	1	20.0	---	103	80 - 120%	---	---	
n-Hexane	22.1	---	2.00	ug/L	1	20.0	---	110	80 - 120%	---	---	E-05
<i>Surr: 1,4-Difluorobenzene (Surr)</i>												
<i>Recovery: 106 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr)</i>												
<i>99 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr)</i>												
<i>90 % 80-120 % "</i>												
Duplicate (1040965-DUP2)												
Prepared: 04/27/21 09:27 Analyzed: 04/27/21 19:09												
QC Source Sample: MW-17A-0421 (A1D1053-05)												
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	ND	---	1.50	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Hexane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>												
<i>Recovery: 109 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr)</i>												
<i>105 % 80-120 % "</i>												

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040965 - EPA 5030B							Water					
Duplicate (1040965-DUP2)		Prepared: 04/27/21 09:27 Analyzed: 04/27/21 19:09										
QC Source Sample: MW-17A-0421 (A1D1053-05)												
Surr: 4-Bromofluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
Matrix Spike (1040965-MS1)		Prepared: 04/27/21 09:27 Analyzed: 04/27/21 20:57										
QC Source Sample: MW-18-0421 (A1D1053-06)												
EPA 8260D												
Benzene	23.4	---	0.200	ug/L	1	20.0	0.510	114	79 - 120%	---	---	
Toluene	20.6	---	1.00	ug/L	1	20.0	ND	103	80 - 121%	---	---	
Ethylbenzene	21.5	---	0.500	ug/L	1	20.0	ND	108	79 - 121%	---	---	
Xylenes, total	66.7	---	1.50	ug/L	1	60.0	ND	111	79 - 121%	---	---	
Naphthalene	21.1	---	2.00	ug/L	1	20.0	ND	105	61 - 128%	---	---	
n-Hexane	21.4	---	2.00	ug/L	1	20.0	ND	107	48 - 143%	---	---	E-05
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		91 %		80-120 %		"						

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SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041031 - EPA 5030B						Water						
Blank (1041031-BLK1)		Prepared: 04/28/21 09:00 Analyzed: 04/28/21 13:25										
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 111 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		103 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		103 %		80-120 %		"						
LCS (1041031-BS1)		Prepared: 04/28/21 09:00 Analyzed: 04/28/21 11:07										
EPA 8260D												
Benzene	22.5	---	0.200	ug/L	1	20.0	---	113	80 - 120%	---	---	
Toluene	20.7	---	1.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
Ethylbenzene	21.7	---	0.500	ug/L	1	20.0	---	108	80 - 120%	---	---	
Xylenes, total	66.3	---	1.50	ug/L	1	60.0	---	110	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	22.4	---	1.00	ug/L	1	20.0	---	112	80 - 120%	---	---	
Naphthalene	19.1	---	2.00	ug/L	1	20.0	---	95	80 - 120%	---	---	
1,2-Dibromoethane (EDB)	19.9	---	0.500	ug/L	1	20.0	---	99	80 - 120%	---	---	
1,2-Dichloroethane (EDC)	21.9	---	0.500	ug/L	1	20.0	---	110	80 - 120%	---	---	
Isopropylbenzene	22.9	---	1.00	ug/L	1	20.0	---	114	80 - 120%	---	---	
1,2,4-Trimethylbenzene	23.1	---	1.00	ug/L	1	20.0	---	116	80 - 120%	---	---	
1,3,5-Trimethylbenzene	22.6	---	1.00	ug/L	1	20.0	---	113	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 106 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		90 %		80-120 %		"						
Duplicate (1041031-DUP1)		Prepared: 04/28/21 12:57 Analyzed: 04/28/21 15:13										

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041031 - EPA 5030B							Water					
Duplicate (1041031-DUP1)		Prepared: 04/28/21 12:57 Analyzed: 04/28/21 15:13										
QC Source Sample: Port-MW-B-0421 (A1D1053-07)												
EPA 8260D												
Benzene	0.210	---	0.200	ug/L	1	---	0.220	---	---	5	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	ND	---	1.50	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 112 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		103 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		103 %		80-120 %		"						

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Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

1,2-Dibromoethane (EDB) by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040993 - EPA 5030B							Water					
Blank (1040993-BLK1)		Prepared: 04/28/21 09:00 Analyzed: 04/28/21 13:07										
EPA 8260D SIM												
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		84 %		80-120 %		"						
LCS (1040993-BS1)		Prepared: 04/28/21 09:00 Analyzed: 04/28/21 12:10										
EPA 8260D SIM												
1,2-Dibromoethane (EDB)	0.197	0.0100	0.0200	ug/L	1	0.200	---	98	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		95 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		83 %		80-120 %		"						

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Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041094 - EPA 3015A							Water					
Blank (1041094-BLK1)		Prepared: 04/29/21 09:04 Analyzed: 04/29/21 21:50										
EPA 6020B												
Iron	ND	---	50.0	ug/L	1	---	---	---	---	---	---	
Manganese	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
LCS (1041094-BS1)		Prepared: 04/29/21 09:04 Analyzed: 04/29/21 21:55										
EPA 6020B												
Iron	2910	---	50.0	ug/L	1	2780	---	105	80 - 120%	---	---	
Manganese	54.8	---	1.00	ug/L	1	55.6	---	99	80 - 120%	---	---	
Matrix Spike (1041094-MS3)		Prepared: 04/29/21 09:04 Analyzed: 05/01/21 21:19										
QC Source Sample: MW-16-0421 (A1D1053-04RE2)												
EPA 6020B												
Iron	3020	---	50.0	ug/L	1	2780	86.0	106	75 - 125%	---	---	Q-16
Manganese	271	---	1.00	ug/L	1	55.6	221	91	75 - 125%	---	---	Q-16

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Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050188 - EPA 3015A							Water					
Blank (1050188-BLK1)		Prepared: 05/06/21 12:58 Analyzed: 05/06/21 17:43										
EPA 6020B												
Iron	ND	---	50.0	ug/L	1	---	---	---	---	---	---	
Manganese	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
LCS (1050188-BS1)		Prepared: 05/06/21 12:58 Analyzed: 05/06/21 17:48										
EPA 6020B												
Iron	2740	---	50.0	ug/L	1	2780	---	99	80 - 120%	---	---	
Manganese	55.6	---	1.00	ug/L	1	55.6	---	100	80 - 120%	---	---	

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Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050287 - Matrix Matched Direct Inject							Water					
Blank (1050287-BLK1)		Prepared: 05/10/21 09:24 Analyzed: 05/11/21 05:50										
EPA 6020B (Diss)												
Iron	ND	---	50.0	ug/L	1	---	---	---	---	---	---	
Manganese	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
LCS (1050287-BS1)		Prepared: 05/10/21 09:24 Analyzed: 05/11/21 05:55										
EPA 6020B (Diss)												
Iron	2810	---	50.0	ug/L	1	2780	---	101	80 - 120%	---	---	
Manganese	55.2	---	1.00	ug/L	1	55.6	---	99	80 - 120%	---	---	

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Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041003 - Method Prep: Aq							Water					
Blank (1041003-BLK1)		Prepared: 04/27/21 13:50		Analyzed: 04/27/21 15:05								
EPA 300.0												
Nitrate-Nitrogen	ND	---	0.250	mg/L	1	---	---	---	---	---	---	
Sulfate	ND	---	1.00	mg/L	1	---	---	---	---	---	---	
LCS (1041003-BS1)		Prepared: 04/27/21 13:50		Analyzed: 04/27/21 15:26								
EPA 300.0												
Nitrate-Nitrogen	1.83	---	0.250	mg/L	1	2.00	---	91	90 - 110%	---	---	
Sulfate	7.97	---	1.00	mg/L	1	8.00	---	100	90 - 110%	---	---	
Duplicate (1041003-DUP2)		Prepared: 04/27/21 13:50		Analyzed: 04/27/21 20:50								
QC Source Sample: MW-12-0421 (A1D1053-02)												
EPA 300.0												
Nitrate-Nitrogen	ND	---	0.250	mg/L	1	---	ND	---	---	---	5%	
Sulfate	7.45	---	1.00	mg/L	1	---	7.50	---	---	0.7	5%	
Matrix Spike (1041003-MS2)		Prepared: 04/27/21 13:50		Analyzed: 04/27/21 21:11								
QC Source Sample: MW-12-0421 (A1D1053-02)												
EPA 300.0												
Nitrate-Nitrogen	2.38	---	0.312	mg/L	1	2.50	ND	95	86 - 118%	---	---	
Sulfate	17.5	---	1.25	mg/L	1	10.0	7.50	100	84 - 119%	---	---	

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062**SLR Corporation-Bothell**22118 20th Ave SE
Bothell, WA 98021Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050168 - Method Prep: Aq							Water					
Blank (1050168-BLK1)		Prepared: 05/06/21 09:55 Analyzed: 05/06/21 16:55										
SM 5310 C												
Total Organic Carbon	ND	---	1.00	mg/L	1	---	---	---	---	---	---	
LCS (1050168-BS1)		Prepared: 05/06/21 09:55 Analyzed: 05/06/21 17:26										
SM 5310 C												
Total Organic Carbon	10.5	---	1.00	mg/L	1	10.0	---	105	90 - 114%	---	---	
Duplicate (1050168-DUP1)		Prepared: 05/06/21 09:55 Analyzed: 05/06/21 18:58										
QC Source Sample: MW-12-0421 (A1D1053-02)												
SM 5310 C												
Total Organic Carbon	9.08	---	1.00	mg/L	1	---	8.98	---	---	1	10%	
Matrix Spike (1050168-MS1)		Prepared: 05/06/21 09:55 Analyzed: 05/06/21 19:28										
QC Source Sample: MW-12-0421 (A1D1053-02)												
SM 5310 C												
Total Organic Carbon	19.5	---	1.01	mg/L	1	10.0	8.98	105	90 - 114%	---	---	

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SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041093 - Method Prep: Aq							Water					
Blank (1041093-BLK1)		Prepared: 04/29/21 08:54 Analyzed: 04/29/21 12:58										
SM 2320 B												
Total Alkalinity	ND	---	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Bicarbonate Alkalinity	ND	---	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Carbonate Alkalinity	ND	---	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Hydroxide Alkalinity	ND	---	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
LCS (1041093-BS1)		Prepared: 04/29/21 08:54 Analyzed: 04/29/21 13:04										
SM 2320 B												
Total Alkalinity	99.5	---	20.0	mg CaCO3/L	1	100	---	100	90 - 110%	---	---	

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Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

SAMPLE PREPARATION INFORMATION

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 1040965</u>							
A1D1053-01	Water	NWTPH-Gx (MS)	04/26/21 14:36	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-02	Water	NWTPH-Gx (MS)	04/26/21 13:00	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-03	Water	NWTPH-Gx (MS)	04/26/21 17:03	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-04	Water	NWTPH-Gx (MS)	04/26/21 15:29	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-05	Water	NWTPH-Gx (MS)	04/26/21 16:17	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-06	Water	NWTPH-Gx (MS)	04/26/21 13:51	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-09	Water	NWTPH-Gx (MS)	04/26/21 17:05	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-10	Water	NWTPH-Gx (MS)	04/26/21 00:00	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
<u>Batch: 1041031</u>							
A1D1053-07	Water	NWTPH-Gx (MS)	04/26/21 11:15	04/28/21 12:57	5mL/5mL	5mL/5mL	1.00
A1D1053-08	Water	NWTPH-Gx (MS)	04/26/21 14:36	04/28/21 12:57	5mL/5mL	5mL/5mL	1.00

Selected Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 1040965</u>							
A1D1053-01	Water	EPA 8260D	04/26/21 14:36	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-02	Water	EPA 8260D	04/26/21 13:00	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-03	Water	EPA 8260D	04/26/21 17:03	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-04	Water	EPA 8260D	04/26/21 15:29	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-05	Water	EPA 8260D	04/26/21 16:17	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-06	Water	EPA 8260D	04/26/21 13:51	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-09	Water	EPA 8260D	04/26/21 17:05	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
A1D1053-10	Water	EPA 8260D	04/26/21 00:00	04/27/21 09:27	5mL/5mL	5mL/5mL	1.00
<u>Batch: 1041031</u>							
A1D1053-07	Water	EPA 8260D	04/26/21 11:15	04/28/21 12:57	5mL/5mL	5mL/5mL	1.00
A1D1053-08	Water	EPA 8260D	04/26/21 14:36	04/28/21 12:57	5mL/5mL	5mL/5mL	1.00

1,2-Dibromoethane (EDB) by EPA 8260D SIM

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 1040993</u>							
A1D1053-01	Water	EPA 8260D SIM	04/26/21 14:36	04/28/21 15:00	5mL/5mL	5mL/5mL	1.00

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SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **128.02207.00002**Project Manager: **Mike Staton****Report ID:****A1D1053 - 05 12 21 1338**

SAMPLE PREPARATION INFORMATION

1,2-Dibromoethane (EDB) by EPA 8260D SIM

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A1D1053-02	Water	EPA 8260D SIM	04/26/21 13:00	04/28/21 15:00	5mL/5mL	5mL/5mL	1.00
A1D1053-03	Water	EPA 8260D SIM	04/26/21 17:03	04/28/21 15:00	5mL/5mL	5mL/5mL	1.00
A1D1053-04	Water	EPA 8260D SIM	04/26/21 15:29	04/28/21 15:00	5mL/5mL	5mL/5mL	1.00
A1D1053-05	Water	EPA 8260D SIM	04/26/21 16:17	04/28/21 15:00	5mL/5mL	5mL/5mL	1.00
A1D1053-06	Water	EPA 8260D SIM	04/26/21 13:51	04/28/21 15:00	5mL/5mL	5mL/5mL	1.00
A1D1053-07	Water	EPA 8260D SIM	04/26/21 11:15	04/28/21 15:00	5mL/5mL	5mL/5mL	1.00
A1D1053-08	Water	EPA 8260D SIM	04/26/21 14:36	04/28/21 15:00	5mL/5mL	5mL/5mL	1.00

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1041094							
A1D1053-02RE2	Water	EPA 6020B	04/26/21 13:00	04/29/21 09:07	45mL/50mL	45mL/50mL	1.00
A1D1053-04RE2	Water	EPA 6020B	04/26/21 15:29	04/29/21 09:07	45mL/50mL	45mL/50mL	1.00
Batch: 1050188							
A1D1053-06	Water	EPA 6020B	04/26/21 13:51	05/06/21 12:58	45mL/50mL	45mL/50mL	1.00
A1D1053-07	Water	EPA 6020B	04/26/21 11:15	05/06/21 12:58	45mL/50mL	45mL/50mL	1.00

Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1050287							
A1D1053-02	Water	EPA 6020B (Diss)	04/26/21 13:00	05/10/21 09:24	45mL/50mL	45mL/50mL	1.00
A1D1053-04	Water	EPA 6020B (Diss)	04/26/21 15:29	05/10/21 09:24	45mL/50mL	45mL/50mL	1.00
A1D1053-06	Water	EPA 6020B (Diss)	04/26/21 13:51	05/10/21 09:24	45mL/50mL	45mL/50mL	1.00
A1D1053-07	Water	EPA 6020B (Diss)	04/26/21 11:15	05/10/21 09:24	45mL/50mL	45mL/50mL	1.00

Anions by Ion Chromatography

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1041003							
A1D1053-02	Water	EPA 300.0	04/26/21 13:00	04/27/21 13:50	5mL/5mL	5mL/5mL	1.00
A1D1053-04	Water	EPA 300.0	04/26/21 15:29	04/27/21 13:50	5mL/5mL	5mL/5mL	1.00
A1D1053-06	Water	EPA 300.0	04/26/21 13:51	04/27/21 13:50	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

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Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062SLR Corporation-Bothell22118 20th Ave SE
Bothell, WA 98021Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

SAMPLE PREPARATION INFORMATION

Anions by Ion Chromatography

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A1D1053-07	Water	EPA 300.0	04/26/21 11:15	04/27/21 13:50	5mL/5mL	5mL/5mL	1.00

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 1050168</u>							
A1D1053-02	Water	SM 5310 C	04/26/21 13:00	05/06/21 09:55	40mL/40mL	40mL/40mL	1.00
A1D1053-04	Water	SM 5310 C	04/26/21 15:29	05/06/21 09:55	40mL/40mL	40mL/40mL	1.00
A1D1053-06	Water	SM 5310 C	04/26/21 13:51	05/06/21 09:55	40mL/40mL	40mL/40mL	1.00
A1D1053-07	Water	SM 5310 C	04/26/21 11:15	05/06/21 09:55	40mL/40mL	40mL/40mL	1.00

Conventional Chemistry Parameters

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 1041093</u>							
A1D1053-02	Water	SM 2320 B	04/26/21 13:00	04/29/21 08:54	60mL/60mL	60mL/60mL	NA
A1D1053-04	Water	SM 2320 B	04/26/21 15:29	04/29/21 08:54	60mL/60mL	60mL/60mL	NA
A1D1053-06	Water	SM 2320 B	04/26/21 13:51	04/29/21 08:54	60mL/60mL	60mL/60mL	NA
A1D1053-07	Water	SM 2320 B	04/26/21 11:15	04/29/21 08:54	60mL/60mL	60mL/60mL	NA

Apex Laboratories

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SLR Corporation-Bothell

22118 20th Ave SE
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Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- E-05** Estimated Result. Initial Calibration Verification (ICV) failed high. No affect on non-detect results.
- Q-16** Reanalysis of an original Batch QC sample.

Apex Laboratories

Lisa Domenighini, Client Services Manager

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503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **128.02207.00002**

Project Manager: **Mike Staton**

Report ID:

A1D1053 - 05 12 21 1338

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported.
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.
- "dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- "wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

- Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
- For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
 - For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
- For further details, please request a copy of this document.

Apex Laboratories

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Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **128.02207.00002**

Project Manager: **Mike Staton**

Report ID:

A1D1053 - 05 12 21 1338

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **128.02207.00002**

Project Manager: **Mike Staton**

Report ID:

A1D1053 - 05 12 21 1338

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation)

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Lisa Domenighini, Client Services Manager

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

CHAIN OF CUSTODY

Company: SLR
Address: 22118 20th Ave SE, Tigard, OR 97223 Ph: 503-718-2323

Project Name: Sea-Tac Development Site
Project #: 128.02207.00002

Lab #: A1D1053
COC: 1 of 1

Project Mgr: Mike Staton
Phone: (425) 402-4600
Email: mstaton@slrconsulting.com
PO #

Sampled by: Steven Losleben
Site Location: OR WA CA
AK ID

DATE: 4/26/21
TIME: 1436
LAB ID #

SAMPLE ID

	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-ACID	NWTPH-DX	NWTPH-CX	8260 BTEX	8260 Halo VOCs	8260 RBDM VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	AL, Sb, As, Ba, Be, Bi, Cd, Ca, Cr, Co, Cu, Fe, Hg, Mn, Mo, Ni, Pb, Se, Ag, Na, Ti, Zn	TCLP (DISS)	TCLP Metals (8)	Naphthalene + N-Hexane	ED08 by 8260 SIM	Nitrate + Sulfate by EPA 300.0	Total Manganese by EPA 300.0	Dissolved Methane by EPA 175	Alkalinity by 2300	TOC by 5310	
MW-7-0421	4/26/21	1436	water	5				X													X							
MW-12-0421		1300		11				X													X							
MW-13-0421		1703		5				X													X							
MW-16-0421		1529		11				X													X							
MW-17A-0421		1617		5				X													X							
MW-14-0421		1351		11				X													X							
PORT-MW-B-0421		1115		11				X													X							
MW-37-0421		1436		5				X													X							
Equip-blank-0421		1705		5				X													X							
Trip Blank		-		1				X													X							

Normal Turn Around Time (TAT) = 14 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other:

SPECIAL INSTRUCTIONS:
- Naphthalene + n-hexane by 8260
- Dissolved methane and dissolved iron were field filtered

RELINQUISHED BY: Signature: Steven Losleben Date: 4/26/21
Signature: Mike Staton Date: 4/27/21
Printed Name: Steven Losleben Printed Name: Mike Staton
Company: SLR Company: Apex

RECEIVED BY: Signature: Date: 4/27/21
Printed Name: Time: 1042
Company: Apex

Apex Laboratories

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Lisa Domenighini, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 128.02207.00002

Project Manager: Mike Staton

Report ID:

A1D1053 - 05 12 21 1338

APEX LABS COOLER RECEIPT FORM

Client: SLR

Element WO#: A1 D1053

Project/Project #: SeaTac Development Site 128.02207.00002

Delivery Info:

Date/time received: 4/27/21 @ 1042 By: JS

Delivered by: Apex Client ESS FedEx X UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 4/27/21 @ 10-13 By: JS

Chain of Custody included? Yes X No Custody seals? Yes X No JS 4/27/21

Signed/dated by client? Yes X No

Signed/dated by Apex? Yes X No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	4.2						
Received on ice? (Y/N)	y						
Temp. blanks? (Y/N)	y						
Ice type: (Gel/Real/Other)	Real						
Condition:	good						

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes No

Out of temperature samples form initiated? Yes No

Sample Inspection: Date/time inspected: 4/27/21 @ 1205 By: PKC

All samples intact? Yes X No Comments:

Bottle labels/COCs agree? Yes X No Comments: TB #2780

COC/container discrepancies form initiated? Yes No X

Containers/volumes received appropriate for analysis? Yes X No Comments:

Do VOA vials have visible headspace? Yes No X NA

Comments

Water samples: pH checked: Yes X No NA pH appropriate? Yes X No NA

Comments:

Additional information: TB 64 492600063

Labeled by:

Witness:

Cooler Inspected by:

Apex Laboratories

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Lisa Domenighini, Client Services Manager

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Page 37 of 53

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-57690-1
Client Project/Site: A1D1053

For:

Apex Laboratories LLC
6700 SW Sandburg St.
Tigard, Oregon 97223

Attn: Ms. Lisa Domenighini



Authorized for release by:
5/4/2021 12:05:48 PM

Lori Thompson, Project Manager I
(714)895-5494
Lori.Thompson@eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

Job ID: 570-57690-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-57690-1

Comments

No additional comments.

Receipt

The samples were received on 4/28/2021 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1° C.

Air Toxics

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

Client Sample ID: MW-12-0421

Lab Sample ID: 570-57690-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Methane	4.4		1.0	0.078	ug/L	1		RSK-175	Total/NA

Client Sample ID: MW-16-0421

Lab Sample ID: 570-57690-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Methane	0.70	J	1.0	0.078	ug/L	1		RSK-175	Total/NA

Client Sample ID: MW-18-0421

Lab Sample ID: 570-57690-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Methane	0.31	J	1.0	0.078	ug/L	1		RSK-175	Total/NA

Client Sample ID: Port-MW-B-0421

Lab Sample ID: 570-57690-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Methane	0.10	J	1.0	0.078	ug/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience LLC

Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

Method: RSK-175 - Dissolved Gases (GC)

Client Sample ID: MW-12-0421
Date Collected: 04/26/21 13:00
Date Received: 04/28/21 10:30

Lab Sample ID: 570-57690-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	4.4		1.0	0.078	ug/L			04/29/21 18:34	1

Client Sample ID: MW-16-0421
Date Collected: 04/26/21 15:29
Date Received: 04/28/21 10:30

Lab Sample ID: 570-57690-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	0.70	J	1.0	0.078	ug/L			04/29/21 19:01	1

Client Sample ID: MW-18-0421
Date Collected: 04/26/21 13:51
Date Received: 04/28/21 10:30

Lab Sample ID: 570-57690-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	0.31	J	1.0	0.078	ug/L			04/29/21 19:28	1

Client Sample ID: Port-MW-B-0421
Date Collected: 04/26/21 11:15
Date Received: 04/28/21 10:30

Lab Sample ID: 570-57690-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	0.10	J	1.0	0.078	ug/L			04/29/21 19:55	1

QC Sample Results

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 570-146909/4

Matrix: Water

Analysis Batch: 146909

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	ND		1.0	0.078	ug/L			04/29/21 13:25	1

Lab Sample ID: LCS 570-146909/2

Matrix: Water

Analysis Batch: 146909

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Methane	13.7	14.08		ug/L		103	80 - 120

Lab Sample ID: LCSD 570-146909/3

Matrix: Water

Analysis Batch: 146909

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dissolved Methane	13.7	14.03		ug/L		102	80 - 120	0	20

QC Association Summary

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

GC VOA

Analysis Batch: 146909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-57690-1	MW-12-0421	Total/NA	Water	RSK-175	
570-57690-2	MW-16-0421	Total/NA	Water	RSK-175	
570-57690-3	MW-18-0421	Total/NA	Water	RSK-175	
570-57690-4	Port-MW-B-0421	Total/NA	Water	RSK-175	
MB 570-146909/4	Method Blank	Total/NA	Water	RSK-175	
LCS 570-146909/2	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 570-146909/3	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Lab Chronicle

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

Client Sample ID: MW-12-0421

Lab Sample ID: 570-57690-1

Date Collected: 04/26/21 13:00

Matrix: Water

Date Received: 04/28/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	2 mL	2 mL	146909	04/29/21 18:34	I9H5	ECL 2
Instrument ID: GC52										

Client Sample ID: MW-16-0421

Lab Sample ID: 570-57690-2

Date Collected: 04/26/21 15:29

Matrix: Water

Date Received: 04/28/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	2 mL	2 mL	146909	04/29/21 19:01	I9H5	ECL 2
Instrument ID: GC52										

Client Sample ID: MW-18-0421

Lab Sample ID: 570-57690-3

Date Collected: 04/26/21 13:51

Matrix: Water

Date Received: 04/28/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	2 mL	2 mL	146909	04/29/21 19:28	I9H5	ECL 2
Instrument ID: GC52										

Client Sample ID: Port-MW-B-0421

Lab Sample ID: 570-57690-4

Date Collected: 04/26/21 11:15

Matrix: Water

Date Received: 04/28/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	2 mL	2 mL	146909	04/29/21 19:55	I9H5	ECL 2
Instrument ID: GC52										

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

Laboratory: Eurofins Calscience LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	CA300001	01-30-22
Washington	State	C916-18	10-11-21

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Method Summary

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	ECL 2

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Apex Laboratories LLC
Project/Site: A1D1053

Job ID: 570-57690-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-57690-1	MW-12-0421	Water	04/26/21 13:00	04/28/21 10:30	
570-57690-2	MW-16-0421	Water	04/26/21 15:29	04/28/21 10:30	
570-57690-3	MW-18-0421	Water	04/26/21 13:51	04/28/21 10:30	
570-57690-4	Port-MW-B-0421	Water	04/26/21 11:15	04/28/21 10:30	

57690

SUBCONTRACT ORDER

Apex Laboratories

A1D1053

W

AD 4/27/21

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone : (714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-0421 Water Sampled: 04/26/21 13:00 (A1D1053-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	05/10/21 17:00	05/10/21 13:00	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL FF (G)40 mL VOA - HCL FF			

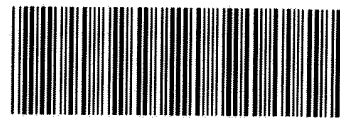
Sample Name: MW-16-0421 Water Sampled: 04/26/21 15:29 (A1D1053-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	05/10/21 17:00	05/10/21 15:29	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL FF (G)40 mL VOA - HCL FF			

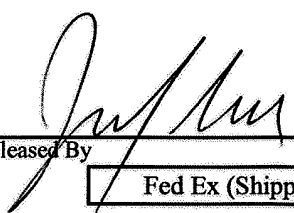
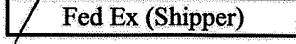
Sample Name: MW-18-0421 Water Sampled: 04/26/21 13:51 (A1D1053-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	05/10/21 17:00	05/10/21 13:51	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL FF (G)40 mL VOA - HCL FF			

Standard TAT



570-57690 Chain of Custody

Released By  Date 4/27/21
Received By  Date 4/28/21 10:30
Released By  Date
Received By  Date

Fed Ex (Shipper)

Fed Ex (Shipper)

06975

SUBCONTRACT ORDER

Apex Laboratories

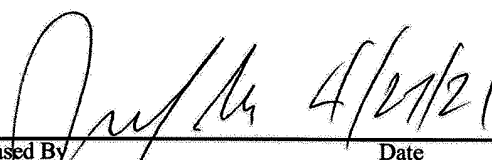
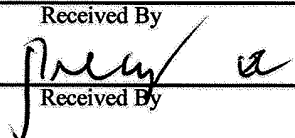
A1D1053

OB 4/27/21

Sample Name: Port-MW-B-0421 Water Sampled: 04/26/21 11:15 (A1D1053-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	05/10/21 17:00	05/10/21 11:15	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL FF			
(G)40 mL VOA - HCL FF			

Standard TAT

Released By		Date	4/27/21	Fed Ex (Shipper)	Received By	Date
Released By	Fed Ex (Shipper)	Date				4/28/21 12:30

ORIGIN ID: BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

SHIP DATE: 27APR21
ACTWGT: 30.00 LB
CAD: 4716258/INET4340



570-57690 Vwaybill

TIGARD, OR 97223
UNITED STATES US

BILL SENDER

TO **DANIELLE GONSMAN**
CALSCIENCE
7440 LINCOLN WAY

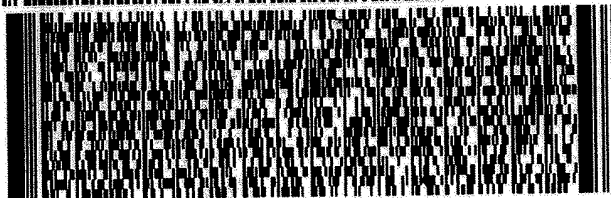
GARDEN GROVE CA 92841

(714) 895-5494

REF

INV
PO:

DEPT



FedEx
Express



J21121023101111

1 of 2

WED - 28 APR 10:30A
PRIORITY OVERNIGHT

TRK#
0201

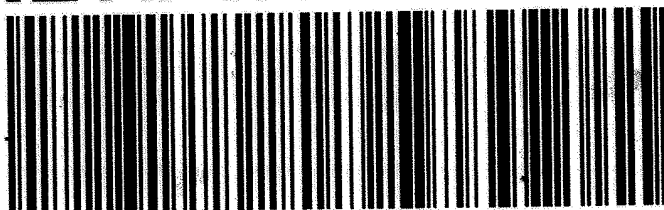
7735 6698 4878

MASTER

92841

WZ APVA

CA-US **SNA**



Login Sample Receipt Checklist

Client: Apex Laboratories LLC

Job Number: 570-57690-1

Login Number: 57690

List Number: 1

Creator: Patel, Jayesh

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	