

March 19, 2018

Project No. 073-93368-06.09A

Harry Grant Riddell Williams P.S. 1001 Fourth Avenue, Suite 4500 Seattle, WA 98154

RE: PERFORMANCE GROUNDWATER MONITORING REPORT - FALL 2016 SEMI-ANNUAL SEA-TAC DEVELOPMENT SITE (MASTERPARK LOT C)

Dear Harry:

Golder Associates Inc. (Golder) completed performance groundwater monitoring at the Sea-Tac Development Site (MasterPark Lot C) November 15 and 16. Groundwater sampling was conducted in accordance with the Compliance Monitoring Plan, Sea-Tac Development Site (Golder 2011)¹. Groundwater samples were collected from monitoring wells, MW-06, MW-07, MW-09, MW-12, MW-13, MW-17A, MW-18, MW-19, MW-20, MW-21, MW-22, and PORT-MW-B (Figure 1). Monitoring wells MW-07, MW-09, MW-12, MW-13, MW-17A, MW-18, and MW-22 are completed to monitor the approximate groundwater plume boundary. Monitoring wells MW-06, MW-19, MW-20, MW-21, and PORT-MW-B are completed to monitor background concentrations. Static water elevations were collected at all site wells, which also include MW-01, MW-05, MW-08A, MW-10, MW-11, MW-14, MW-15, MW-16 and MW-23.

1.0 SAMPLING PROTOCOL

Groundwater sampling was conducted in accordance with the Compliance Monitoring Plan, Sea-Tac Development Site (Golder 2011)¹, and included the following activities:

- Measurement of static water elevations at monitoring wells.
- Well purging to ensure sample representativeness with the dedicated submersible bladder pumping systems.
- Measurement of field parameters including: pH, specific conductance, temperature, dissolved oxygen, and turbidity.
- Collection of all purge water in appropriate containers for on-site storage prior to disposal.
- Collection of representative and quality assurance / quality control (QA/QC) samples in appropriate containers.
- Analyses of groundwater for volatile organic compounds (VOCs, EPA Method 8260C): gasoline range hydrocarbons, benzene, toluene, ethylbenzene, xylene, ethylene dibromide (EDB), naphthalene, and n-hexane; and for diesel and motor oil range Northwest Total Petroleum Hydrocarbons (Method NWTPH-D).

09393368-r-rev0-fall semi-annual sampling 2016-031918.docx

¹Golder Associates Inc. (Golder). 2011. Attachment E: Compliance Monitoring Plan Sea-Tac Development Site, SeaTac Washington. November 2.

Sampling activities were documented on Sample Integrity Data Sheets (SIDS), which are provided in Appendix A. Appendix B provides data tables and trend graphs for all sampling events. Table 1 presents water depth measurements and elevations that were collected from wells prior to sampling activities. Table 2 shows a summary of the field parameters and laboratory analytical results for each groundwater sample collected in November 2016.

2.0 FALL 2016 SEMI-ANNUAL GROUNDWATER SAMPLING RESULTS

Following sample collection, all bottles were sealed, labeled, and placed in an iced cooler until delivery to the laboratory. All groundwater samples from monitoring wells were transported under chain-of-custody procedures to Analytical Resources Incorporated (ARI), of Tukwila, Washington, for analysis. Upon receipt of laboratory data reports, data underwent a data validation review. Results were compared to State of Washington Model Toxics Control Act (MTCA) Method A or B clean-up levels and Secondary Maximum Containment Levels (MCLs), whichever value is lower.

The analytical results indicate that groundwater conditions have improved significantly from those observed during the historical groundwater monitoring during the Remedial Investigation (RI) and since the startup of the In-situ Air Sparging (IAS)-Soil Vapor Extraction (SVE) system. Table 2 presents the field parameter measurements and laboratory analytical results for each groundwater sample collected in November 2016. In summary, the only performance monitored groundwater that have any MTCA or MCL exceedances are from monitoring wells MW-07 and MW-22. Below are more details on the detections during the fall 2016 monitoring event.

Results for NWTPH-Gasoline exceeded the MTCA Method A limit for groundwater when benzene is present (0.8 milligrams per liter [mg/L]) in wells MW-07 and MW-22, and the field duplicate at MW-22 (MW-22-DUP). NWTPH-Gasoline was also detected in MW-06 and MW-18 at very low levels, with both detections less than the MTCA standard. NWTPH-Gx was not detected in wells MW-09, MW-12, MW-13, MW-17A, MW-19, MW-20, MW-21, and PORT-MW-B. MW-06, observed to have a NWTPH-Gasoline concentration of 0.11 mg/L, has not previously had a NWTPH-Gasoline concentration above the laboratory Limit of Quantitation (LOQ) of 0.10 mg/L. For this reason, this MW-06 result for this round is considered to be an anomaly.

The MTCA Method A limit for benzene (5 μ g/L) was not exceeded in any wells. Benzene was detected in MW-07, MW-09, MW-18, MW-22, and the field duplicate at MW-22 (MW-22-DUP), but was less than the MTCA standard. Benzene was not detected in wells MW-06, MW-12, MW-13, MW-19, MW-20, and MW-21. Benzene was detected at trace levels at MW-17A and PORT-MW-B (0.14 and 0.03 μ g/L, respectively), which were below the laboratory LOQ of 0.20 μ g/L.

There were detections of toluene and/or ethylbenzene in wells MW-07, MW-09, MW-18, MW-22, MW-22-DUP, and PORT-MW-B (ethylbenzene only), but the values did not exceed the MTCA standard (640 μ g/L for toluene and 700 μ g/L for ethylbenzene). Toluene and ethylbenzene were not detected in wells MW-06, MW-12, MW-13, MW-17A, MW-19, MW-20, MW-21, and PORT-MW-B (toluene only).

Results for total xylenes did not exceed the MTCA Method A standard (1,000 μ g/L) in any wells. Xylenes were detected, but below the standard, in MW-07, MW-09, MW-13, MW-18, MW-22, MW-22-DUP, and PORT-MW-B and were not detected in wells MW-06, MW-12, MW-17A, MW-19, MW-20, and MW-21.

N-hexane was detected, and below the MTCA Method B level (480 μ g/L), in wells MW-06, MW-07, MW-18, MW-22, and MW-22-DUP. The N-hexane detection at MW-06 was at trace levels (0.1 μ g/L) below the laboratory LOQ of 0.20 μ g/L. The N-hexane detections in MW-06, MW-07, MW-22 and MW-22-DUP were J-flagged as detected, but estimated. N-hexane was not detected in wells MW-09, MW-12, MW-13, MW-17A, MW-19, MW-20, MW-21, and PORT-MW-B.



Naphthalene was detected above the MTCA limit (160 μ g/L) in wells MW-22 and MW-22-DUP. Naphthalene was also detected, but below the MTCA limit, in MW-07. Naphthalene was not detected in wells MW-06, MW-09, MW-12, MW-13, MW-17A, MW-18, MW-19, MW-20, MW-21, and PORT-MW-B.

Results for NWTPH-Diesel were detected above the MTCA Method A limit (0.5 mg/L) in wells MW-07, MW-22, and MW-22-DUP. NWTPH-Diesel was detected, but below the MTCA limit in wells MW-06, MW-09, MW-12, MW-13, and MW-18. NWTPH-Diesel was not detected in MW-17A, MW-19, MW-20, MW-21, and PORT-MW-B. All diesel concentrations were less than 3 mg/L or not detected. NWTPH-Motor Oil was not detected (<0.20 mg/L) for all samples.

3.0 DATA QUALITY ASSURANCE / VALIDATION

Data underwent a data validation review and in general, the data were acceptable, except for the following:

- Samples MW-07, MW-22, and MW-22-DUP had to be diluted due to high levels of analytes.
- One field blank had detections of ethylbenzene, m, p-xylene, and naphthalene at 0.13 J, 0.24 J and 0.14 J μg/L, respectively. Associated samples with detections of ethylbenzene, m, p-xylene, and napthalene between the Detection Limit (DL) and the LOQ were qualified as non-detect (U) at the LOQ. No action was taken for results greater than the LOQ.
- n-Hexane results for two samples from MW-22 were qualified as biased high (J+) when associated surrogate recovery was above QC criteria.
- Results for QA/QC samples (field blanks, trip blanks, and field duplicate) were acceptable except as discussed above. No other issues were noted.

4.0 SUMMARY

The analytical results for the fall 2016 semi-annual groundwater sampling indicate that there continues to be significant improvements to the groundwater conditions following the startup of the IAS-SVE system and since the first quarter (February 2014) groundwater sampling event. The first sampling event in February 2014 had 24 results that were greater than the MTCA clean-up levels, while the most recent sampling event in November 2016 had only 5 results above MTCA clean-up levels out of 120 results. Overall, concentrations are trending downward as shown in the historical data tables and graphs in Appendix B.

The only on-site performance monitoring well containing compounds in groundwater with analytical results above MTCA clean-up levels in November 2016 was MW-07. A single on-site monitoring well (MW-11), which had detected contaminants over MTCA clean-up levels during the RI, is not sampled for performance monitoring and thus no new results from MW-11 are available for comparison. At MW-07, although there was a decrease in gasoline, benzene and diesel concentrations compared to May 2016, gasoline and diesel results remained above the MTCA clean-up levels. MW-18, that was in the source leak area, had an increase in diesel level showing change of a trending stabilization over the previous four sampling events, with the November 2016 diesel level slightly below the MTCA clean-up level with a concentration of 0.48 mg/L. Even with gasoline and diesel results higher than observed in December 2015, the results of gasoline, benzene, and diesel are all lower than the first sampling event in February 2014. The only off-site performance monitoring well that was sampled and contained compounds in groundwater with analytical results above the MTCA clean-up levels in November 2016 was MW-22; although two off-site monitoring wells (MW-15 and MW-16), which had detected contaminants over MTCA clean-up levels during the RI, are not sampled for performance monitoring and thus no new results from these locations are available for comparison.

Wells MW-12 and MW-13 showed the greatest drop in concentrations since the startup of the IAS-SVE system with NWTPH-Gx levels going from 8.6 mg/L to <0.10 mg/L and 14 mg/L to <0.10 mg/L, respectively. Benzene in MW-12 went from 79 μ g/L to <0.20 μ g/L. Toluene, ethylbenzene, total xylenes, and naphthalene in MW-12 and MW-13 also showed significant decreases in concentrations.



The wells inside of the IAS and SVE system area have significant reductions and are almost meeting performance goals. Refer to Appendix B for data tables and trend graphs for comparisons of the March 2010 final RI monitoring event with the 2014-2016 performance monitoring results.

If you have any questions or require any additional information, please contact Lee Holder at (425) 883-0777.

Sincerely,

GOLDER ASSOCIATES INC.

Aaron M. Rwiecki

Senior Project Environmental Scientist

Lee K. Holder, PE

Associate Environmental Engineer

cc: Roger McCracken, McCracken Group

Tamarah Knapp-Hancock, Scarsella Bros. Inc.

Doug Rigoni, SeaTac Investments LLC

AMR/LKH/sb

List of Tables

Table 1 Fall 2016 Semi-Annual Groundwater Elevation Data, Sea-Tac Development Site, SeaTac,

Washington

Table 2 Fall 2016 Semi-Annual Groundwater Field Parameters and Analytical Data, Sea-Tac

Development Site, SeaTac, Washington

List of Figures

Figure 1 Groundwater Monitoring Locations

List of Appendices

Appendix A Sample Integrity Data Sheets (SIDS)
Appendix B Data Tables and Trend Graphs





March 2018 073-93368-06.09A

Table 1: Fall 2016 Groundwater Elevation Data Sea-Tac Development Site, Seatac, Washington

			Well Data			3	
Sample Location ID	Date/Time Sampled	Total Well Depth (feet bgs)	Screened Interval (feet bgs)	Casing Diameter (inches)	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)
MW-01	11/15/2016 12:18	51.0	41-51	2	361.38	48.69	312.69
MW-05	11/15/2016 11:05	58.0	48-58	2	364.26	54.25	310.01
MW-06	11/15/2016 8:34	60.0	50-60	2	369.68	59.51	310.17
MW-07	11/15/2016 12:47	53.5	43.5-53.5	2	358.69	48.50	310.19
MW-08A	11/15/2016 11:44	54.0	44-54	2	359.16	48.85	310.31
MW-09	11/15/2016 11:25	57.0	47.5-57	2	362.13	52.15	309.98
MW-10	11/15/2016 13:04	90.0	80-90	2	360.18	50.32	309.86
MW-11	11/15/2016 12:40	57.0	42-57	2	357.53	47.17	310.36
MW-12	11/15/2016 12:54	67.0	52-67	2	364.83	55.20	309.63
MW-13	11/15/2016 11:52	65.0	50-65	2	365.42	55.81	309.61
MW-14	11/15/2016 11:59	65.0	50-65	2	363.76	54.29	309.47
MW-15	11/16/2016 11:40	65.0	50-65	2	364.67	54.58	310.09
MW-16	11/15/2016 10:55	73.7	64-74	2	377.63	67.95	309.68
MW-17A ^a	11/15/2016 10:30	95.0	80-95	2	394.00	84.57	309.43
MW-18	11/15/2016 12:33	62.0	47-62	2	360.45	50.63	309.82
MW-19	11/15/2016 11:36	58.0	43-58	2	356.61	46.15	310.46
MW-20	11/15/2016 10:18	113.1	103-113	2	416.61	106.97	309.64
MW-21	11/15/2016 10:05	109.8	95-110	2	412.85	102.97	309.88
MW-22	11/16/2016 10:31	95.0	80-95	2	393.31	83.43	309.88
MW-23	11/16/2016 11:48	57.5	42.5-57.5	2	354.94	44.66	310.28
PORT-MW-B ^a	11/16/2016 12:12	99.0	79-99	2	400.00	90.31	309.69

Notes:

- Not measured or not available feet bgs Feet below ground surface feet bmp Feet below measuring point feet msl Feet above mean sea level TOC Top of casing inside PVC well

Well not surveyed, elevation estimated.

Top of pump is above water level - not measured.



March 2018 073-93368-06.09A

Table 2: Fall 2016 Groundwater Field Parameters and Analytical Data, Sea-Tac Development Site, Seatac, Washington

					Field Pa	arameter	's							Anal	ytical Data				
Sample Location ID	Date/Time Sampled ^c	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) ^f	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
MW-06 ^{b,c,n}	11/15/2016 9:20	369.7	59.5	310.2	6.34	13.7	352	7.42	418	0.11	<0.20	<0.20	<0.20	<0.40	<0.20	0.1 J	<0.50	0.17	<0.20
MW-07 ^b	11/16/2016 14:10	358.7	48.5	310.2	6.54	15.9	411	1.39	3.95	8.3	4.3	10	40	85	<0.20	10.8 J	37	2.44	<0.20
MW-09 ^b	11/15/2016 15:00	362.1	52.2	310.0	5.94	14.5	234	1.41	0.80	<0.10	0.23	0.23	0.56	0.32	<0.20	<0.20	<0.50	0.20	<0.20
MW-12 ^b	11/16/2016 9:20	364.8	55.2	309.6	7.84	14.9	199	8.45	13.4	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	0.16	<0.20
MW-13 ^b	11/15/2016 16:00	365.4	55.8	309.6	7.25	14.1	195	10.64	0.73	<0.10	<0.20	<0.20	<0.20	0.46	<0.20	<0.20	<0.50	0.19	<0.20
MW-17A ^{a,b}	11/15/2016 12:40	394.0	84.6	309.4	6.46	12.6	122	3.76	10.2	<0.10	0.14 J	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
MW-18 ^b	11/16/2016 8:10	360.5	50.6	309.8	7.55	15.0	503	6.97	2.44	0.12	3.6	1.2	2.1	9.0	<0.20	0.39	<0.50	0.48	<0.20
MW-19 ^b	11/15/2016 11:35	356.6	46.2	310.5	6.88	14.1	586	0.37	0.81	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
MW-20 ^b	11/15/2016 14:10	416.6	107.0	309.6	6.75	13.0	241	7.12	0.41	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
MW-21 ^b	11/15/2016 10:45	412.9	103.0	309.9	6.30	13.4	290	6.29	4.51	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
MW-22 ^b	11/16/2016 11:10	393.3	83.4	309.9	6.89	13.1	246	1.00	5.50	11	4.0	3.9	631	882	<0.20	5.9 J+	438	1.89	<0.20
MW-22 Duplicate ^b	11/16/2016 11:20	-	-	-	-	-	-	-	-	11	4.1	4.0	581	777	<0.20	6.1 J+	363	2.16	<0.20
PORT-MW-B ^{a,b}	11/16/2016 12:55	400.0	90.3	309.7	6.70	13.1	192	3.97	11.7	<0.10	0.03 J	<0.20	0.04 J	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
Clos	n-up Level			MTCA M	ethod A	for Grour	ndwater (uni	estricted la	nduse)	0.8 ^d /1.0 ^e	5 ^g	1000 ^g	700 ^g	1000 ^h	0.01 ^h	NSA	160	0.5	0.5
Clea	iii-up Levei			MTCA M	ethod B	for Grour	ndwater (uni	estricted la	nduse)	NSA	5 ⁱ	640	800	1600	0.022	480	160	NSA	NSA

Notes:			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
a	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
е	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
j	Top of pump is above water level - not measured.	J	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
k	Well not sampled, attempted to sample with bailer	UJ	The constituent was analyzed for, but was not detected above the reported sample quantitation limit; however, the value reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
m	Well sampled with bailer, no field parameters collected	J+	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.
n	Well sampled with bailer with field parameters collected		





APPROVED

В

APPENDIX A SAMPLE INTEGRITY DATA SHEETS (SIDS)

lant/Site <u>Master Par</u>	K LULC	Project No. <u>073</u>	3-93368-06.09A
te Location <u>SeaTac</u>	, WA	Sample ID MPLOTC-MW-6-1115	
ampling Location A	end of sample tubing		
ow Flow Sampling	· 有条件。	Harrist Control of the	Carettell regions on
echnical Procedure 1	Reference(s) App E - Comp	liance Monitoring Plant f	Plan (Golder, Nov 2011)
ype of Sampler <u>QE</u> E	Controller and Bladder Pu	mp Dedicated Tubin	o Baile
ate 11/15/16	AND THE STATE OF T	Time 0970	
		Station MW-6	
mple Type: g	<u>rab</u> time c	omposite	space composi
mple Acquisition M	easurements (depth, volun	ne of static well water	전에게 되었다면 하다 그런 가는 얼마를 하면 되스테 그리는 아니다.
	SI Free Product Thick		
	rement: 0832 on 11/15		(4) (4) (4) (4) (4) (4) (4) (4) (4) (4)
	eet below top of well casing		1
easurements are in it			
ample Intake Point: 6 mple Description	0 ft below top of well casing المحمدة		Service from the state of the service of the
ample Intake Point: 6 mple Description eld Measurements of the Field Parameters S	n Sample (pH, conductivity	/, etc.)	Service from the state of the service of the
ample Intake Point: 6 mple Description eld Measurements of the Field Parameters S Aliquot Amount	n Sample (pH, conductivity Sheet Analysis		Service from the state of the service of the
ample Intake Point: 6 mple Description eld Measurements of the Field Parameters S	n Sample (pH, conductivity	/, etc.)	
ample Intake Point: 6 mple Description eld Measurements of the Field Parameters S Aliquot Amount	n Sample (pH, conductivity Sheet Analysis NWTPH-gasoline &	container	Preservative
ample Intake Point: 6 mple Description eld Measurements of the Field Parameters S Aliquot Amount	Analysis NWTPH-gasoline & BTEX EDB (ethylene	container	Preservative
ample Intake Point: 6 mple Description eld Measurements of the Field Parameters S Aliquot Amount	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide)	container	Preservative
ample Intake Point: 6 mple Description eld Measurements of the Field Parameters S Aliquot Amount	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane	container	Preservative
ample Intake Point: 6 mple Description eld Measurements of the Field Parameters S Aliquot Amount (5) 40 mL	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane Naphthalene	Container VOA vial	Preservative HCI

Well ID MW-6
Date 11/15/14
Time Begin Purge 0850
Time Collect Sample

Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
-	0899	0.501	6,37	355	13.5	7.27	414
	0005	0,8	6.36	354	13.6	7.37	530
~	0110	1, 7	6,36	353	13,6	7.99	546
4	914	1,5	6.38	353	13.7	734	440
	0916	22.0	6,34	352	13.7	T.47	4/8
		= =		_			W
						77	
No.						i i i i i i i i i i i i i i i i i i i	
					14 1		
	= E1						11.

Comments:		
Nitrogen Tank: psi Throttle: psi Cycle ID:	Bailing	wholor pump
Purge Rate: mL/min PID: ppm		
Water level fluctuation with pump cycle:		

Sampler's Initials_

lant/Site <u>Master Park</u>	Lot C	Project No. 07	73-93368-06.09A
te Location <u>SeaTac</u> ,	WASample ID MPLOTO	-MW-7-111616	
	end of sample tubing		PLOTC-FB- 1116/6
ow Flow Sampling	ent particular		
echnical Procedure F	Reference(s) <u>App E - Comp</u>	liance Monitoring Plant	t Plan (Golder, Nov 2011)
ype of Sampler <u>QED</u>	Controller and Bladder Pu	ımp – Dedicated Tub	ing
ate 1 <i>/16/16</i>	A COLUMN TO STATE OF THE STATE	Time 140 / F	FB 1345
edia <u>Water</u>	4차 80 AC 개화설계 - 요즘 중요 415 (1871년) # 유급은 P. 227 - 11 (1871년) # 1	Station MW-7	
ımple Type: g	rab time o	composite	space composi
mple Acquisition M	easurements (depth, volun	ne of static well wate	일었다. 이 이 경기를 하는 사람들이 얼마를 되었다.
tatic Water Level: 48	[소급: [1] [1] [1] [1] [1] [1] [1] [1] [1] [1]		
ate & Time of Measur	ement: 1247 on 11/1	5/16	
	eet below top of well casing		
mple Description <u>/</u>	2 ft below top of well casing Clear TPH Oda 1 Sample (pH, conductivity		
eld Measurements or	Sample (pH, conductivity	y, etc.)	
eld Measurements or ee Field Parameters S Aliquot Amount	Sample (pH, conductivity Sheet Analysis	y, etc.)	Preservative
eld Measurements or	Sample (pH, conductivity	y, etc.)	
eld Measurements or ee Field Parameters S Aliquot Amount	Sample (pH, conductivity Sheet Analysis NWTPH-gasoline &	y, etc.)	Preservative
eld Measurements or ee Field Parameters S Aliquot Amount	Sample (pH, conductivity Sheet Analysis NWTPH-gasoline & BTEX EDB (ethylene	y, etc.)	Preservative
eld Measurements or ee Field Parameters S Aliquot Amount	Sample (pH, conductivity Sheet Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide)	y, etc.)	Preservative
eld Measurements or ee Field Parameters S Aliquot Amount	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane	y, etc.)	Preservative
eld Measurements or ee Field Parameters S Aliquot Amount (5) 40 mL	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane Naphthalene	Container VOA vial	Preservative HCl

Well ID_	MW-7
Date 11/1	6/16
Time Begin	Purge 1334
Time Colle	ct Sample 14-10

рH

Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1344	1/1/1	6.54	410	15.8	1.08	6.13
_	1349		6.54	4.06	15.9	1.18	7.53
_	1354		6.55	407	15.9	1.26	6.60
	1359		6.55	409	15.9	1.34	4,48
	1404		6.55	410	159	1.37	4.11
	1409	-	6.54	411	15.9	1.39	3.95
			('		1
							.70
			-			III_	
				<u> </u>			

Comments:		·		
Nitrogen Tank: 110 Throttle: 40 Cycle ID: 50 CPM: 2	_psi _psi _			
CPM: 2 Purge Rate: 240 PID: 1247	_mL/min _ppm			
Water level fluctuation with	n pump cycl	e:		

Sampler's Initials

	CLot C	Project No. <u>073</u>	-93368-06.09A
ite Location <u>SeaTac</u> ,	WASample ID MPLOTC	MW-9-25/115/6	
ampling Location At			1318 35 55
Low Flow Sampling	· · · · · · · · · · · · · · · · · · ·	Harris Harris	care in the responsibility of
echnical Procedure F	Reference(s) App E - Comp	liance Monitoring Plant F	Plan (Golder, Nov 2011)
ype of Sampler <u>QED</u>	Controller and Bladder Pu	mp - Dedicated Tubin	g
Date 11/15/16		Time 1500	· · · · · · · · · · · · · · · · · · ·
Media <u>Water</u>	The state of the s	Station MW-9	The second seasons the second
Sample Type: g	rab time c	omposite	space composit
ample Acquisition M	easurements (depth, volun	ne of statje well water a	
	IS Free Product Thick	1. / //	
Date & Time of Measur	rement: 1125 on 11/15/1	4	
	eet below top of well casing		
Sample Intake Point: 5	4 ft below top of well casing		
	n Sample (pH, conductivity	/, etc.)	
See Field Parameters S	3heet	Wear to peak motive even	
Aliquot Amount			THE PARTY OF THE P
A STATE OF THE PARTY OF THE PAR	<u>Analysis</u>	<u>Container</u>	<u>Preservative</u>
(5) 40 mL	Analysis NWTPH-gasoline & BTEX	Container VOA vial	Preservative HCl
(5) 40 mL	NWTPH-gasoline &	The Street Restreet in the Street Street	The Commence of the State of th
(5) 40 mL	NWTPH-gasoline & BTEX EDB (ethylene	The Street Restreet in the Street Street	The Commence of the State of th
(5) 40 mL	NWTPH-gasoline & BTEX EDB (ethylene dibromide)	The Street Restreet in the Street Street	The Commence of the State of th
(5) 40 mL (2) 500 mL	NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane	The Street Restreet in the Street Street	The Commence of the State of th
	NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane Naphthalene	VOA vial	HCI
	NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane Naphthalene	VOA vial	HCI
	NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane Naphthalene	VOA vial	HCI

Well ID
Date 1/15/16
Time Begin Purge 1428
Time Collect Sample 1500

Water Level feet bmp	Time	Volume Purged	рĦ	Conductivity (uS/cm)	Temp.	DO (mg/L)	Turbidity (NTU)
	1438		5.91	232	14,6	2.17	1.57
	1443		5,88	231.3	14.5	1,63	0.45
	1448		5.90	231,7	14,5	1.52	0.96
	1453		5,93	233.0	14.5	1,45	0.50
1	1458		5.94	233,8	145	1.41	0.80
		i		74 b			/
				0			
1	_						
						4	

Comments:			
Nitrogen Tank: 10 psi Throttle: 60 psi Cycle ID: 103		dir.	
Purge Rate: ~ / 20 mL/m	nin		
Water level fluctuation with pump	cycle:		

Sampler's Initials

Plant/Site Master Park	Lot C	Project No. <u>073</u>	-93368-06.09A
Site Location SeaTac	, WASample ID MPLOTO	C-MW-12- 111616	では、
Sampling Location At	A resident source and interest so	and the same of the same	
Low Flow Sampling	HALL THE HERE	Research on the grant of the	Service of the servic
Technical Procedure I	Reference(s) App E - Com	pliance Monitoring Plant P	lan (Golder, Nov 2011)
	Controller and Bladder P		THE BUILD TO SEE THE ARM NOT SEE THE
Sample Type: g			space composite
	easurements (depth, volu		[상 19] [[[[[[[[[[[[[[[[[[[
	Free Product Thick		
	rement: 11/6/66/2 087	EFE SAME TO A THE MINISTER OF THE WORLD	
	eet below top of well casin		
Sample Intake Point: 5	9 ft below top of well casin	q	
Sample Description <u>(</u>			
See Field Parameters S		ender van Frankrijs in de Maria verstaat territori	
Aliquot Amount	<u>Analysis</u>	<u>Container</u>	<u>Preservative</u>
(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCI
	EDB (ethylene dibromide)	grania se servição	The second secon
	N-hexane		
	Naphthalene		
(2) 500 mL	NWTPH-Dx	Amber Glass	none
A PROPERTY A CONTROL OF	AND THE PROPERTY OF THE PROPER		
			Tell and the Time
Sampler (signature)	Jaran Buderclev	Date	2016
Supervisor (signature)	The Hold	Date	
(-8)	Var Var	CONTROL PROPERTY.	- 1

Well ID MW-12	
Date 11/16/2016	
Time Begin Purge 6834 Shipped, reconsidered porp	45 timber 000 000-14
Time Collect Sample #920	4.7
	MONT

	* - * * * * * * * * * * * * * * * * * *				((PH)		
Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	0844		7.87	149,1	14.9	. 8.87	61.8
0859	24F		7.85	164.6	14.9	8.75	47.6
	0964		7.85	175.7	14.9	8.60	35.0
	6909		7.83	188.4	14.9	8,51	26.7
	0914		7.83	195.2	15.0	внз	17.7
	ए न्।		7.64	199.0	14.4	8.45	13.4
			27 12 11		* 1		
			Luc on			L. BERLY A	
				,			
	0 1 5 2				4.5	51 3	- 15 H
		5 3 5 5	7-72	1.1	K. Tim		

Comments:

Nitrogen Tank: 110 psi
Throttle: 60 psi

Cycle ID: 103 /10/5 521)

CPM: 4

Purge Rate: __2.600 mL/min

PID: 0.1 ppm (2 TOC (515/16) TAS O(F)

Water level fluctuation with pump cycle:

Sampler's Initials Awk/JCM

Plant/Site <u>Master Parl</u>	k Lot C	Project No. <u>07</u>	′3-93368-06.09A
Site Location <u>SeaTac</u>	, WASample ID MPLOTO	C-MW-13- 11 15 16	
Sampling Location At			
Low Flow Sampling			
Technical Procedure I	Reference(s) App E - Com	pliance Monitoring Plant	Plan (Golder, Nov 2011)
Type of Sampler <u>QEC</u>	Controller and Bladder P	ump - Dedicated Tub	ing
Date		/西部語語製造表力學等的學學。146751	
Media <u>Water</u>		Station MW-13	
Sample Type: g	6.그렇스테이터 12~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	composite	space composite
Sample Acquisition M	easurements (depth, volu	me of static well water	
	.81 Free Product Thic		
	rement: 1152 on 11/15		ALEMAN START LESS
	eet below top of well casir		
Sample Intake Point: 6	0 ft below top of well casir	1 g - 14 - 14 - 14 - 14 - 14 - 14 - 14 - 1	
See Field Parameters S			
Aliquot Amount	<u>Analysis</u>	<u>Container</u>	<u>Preservative</u>
(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		- Marie 1997
	N-hexane		
	Naphthalene		
(2) 500 mL	NWTPH-Dx	Amber Glass	none
Marie Borrage - Calenda	364 (2.44)		
Sampler (signature) Supervisor (signature)	In Alde	Date	16

Well ID Mh-13
Date 11/16/16
Time Begin Purge 15 25
Time Collect Sample 1600

Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
designation of the second	1535	***************************************	7,23	195,1	14.0	10,47	2.25
	1540		7,25	195,1	14.0	10.61	1.13
	1545	11 thus 120 - 120	7.25	1558	140	10.62	1.89
-	1550		7.25	195.2	14.1	10.63	0.68
	1555		7.25	195.4	141	10.64	6.73
	m vijevilosilo	u Michigan Spirit					
	n ingin M						
ration Year Tile							
		2: 2h: 24 10 11-0: 11					Walter State
		NEWER AND					
				Parkettan M			

Comments:		1411	
	psi psi		
CPM: 2 Purge Rate: 280	mL/min ppm		
Water level fluctuation with	pump cycle:		

Sampler's Initials

Site Location SeaTac,			93368-06.09A
	WA Sample	ID MPLOTC-MV-17/	4-11/S16
Sampling Location <u>At</u>	end of sample tubing		
Low Flow Sampling	An explorate rates where		
Technical Procedure P	Reference(s) App E - Comp	liance Monitoring Plant F	lan (Golder, Nov 2011)
Type of Sampler <u>QED</u>	Controller and Bladder Pu	mp - Dedicated Tubin	
Date 11/15/16		Time 1240	
Media <u>Water</u>	de la company de	Station <u>MW-17A</u>	
Sample Type: g	rab time o	omposite	space composite
Sample Acquisition Me	easurements (depth, volun	ne of static well water a	
	57 Free Product Thick		
	ement: 1030 on 11/15/14	CLANS COLUMN TO A CONTROL OF CONTROL OF THE COLUMN TO THE	
	eet below top of well casing		
Sample Intake Point: 90	of the low top of well casing		
Sample Description <u>(</u>	Les Vo Odas		
Field Measurements or	n Sample (pH, conductivity	/, etc.)	
Field Measurements or See Field Parameters S	n Sample (pH, conductivity Sheet		Preservative
Field Measurements or See Field Parameters S	n Sample (pH, conductivity Sheet Analysis	<u>Container</u>	Preservative HCl
Field Measurements or See Field Parameters S	n Sample (pH, conductivity Sheet		Preservative HCl
Field Measurements or See Field Parameters S	Analysis NWTPH-gasoline &	<u>Container</u>	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Field Measurements or See Field Parameters S	Analysis NWTPH-gasoline & BTEX EDB (ethylene	<u>Container</u>	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Field Measurements or See Field Parameters S	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide)	<u>Container</u>	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Field Measurements or See Field Parameters S	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane	<u>Container</u>	T
Field Measurements or See Field Parameters S Aliquot Amount (5) 40 mL	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane Naphthalene	<u>Container</u> VOA vial	HCl

Well ID MW-17A	
Date 11/15/16	_
Time Begin Purge 1206	
Time Collect Sample 1240	
	~

					PII		313E
Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1216	1	6.53	125,6	12.7	5.80	24,4
	1221		6,48	124,2	12.7	4.55	19,6
	17726		6.47	122.8	12,6	4.16	13.5
	1231		6,46	1223	12,6	3.90	13.2
2 10	1236		6.46	121.7	12.6	3,76	10.2
= -			3100				
			7 7 4	= 5°			
		11		N.E	0.0		
							A 1511
				710		===	
							
<u> </u>		=					
						T bet	- TO 11

Comments:	, ==15 ₂	
Nitrogen Tank: 10 psi Throttle: 60 psi Cycle ID: 60	#	
Purge Rate: 260 mL/min PID: 0.5 ppm		
Water level fluctuation with pump cycle:		

Sampler's Initials_

Plant/Site Master Parl	k Lot C	Project No. <u>073</u>	3-93368-06.09A
Site Location SeaTac	, WASample ID MPLOTC	-MW-18-171616	
Sampling Location A	t end of sample tubing		all last of
Low Flow Sampling		and the second second	では、 では、 では、 では、 では、 では、 では、 では、
Technical Procedure 1	Reference(s) App E - Comp	oliance Monitoring Plant I	Plan (Golder, Nov 2011)
Type of Sampler QED	Controller and Bladder Pu	ımp – Dedicated Tubin	artikan periodi mangai sebilah banca. IC di puntuk sebagai sebila
	O. L.		
Media Water	Salahan Gallan	Station MW-18	Leral
	<u>rab</u> time o		space composite
Sample Acquisition M	easurements (depth, volur	ne of static well water	
	6当' Free Product Thick		L AN
Date & Time of Measur	rement: 11/1/16 @ @	731	
Measurements are in f	eet below top of well casing	The state of the s	ng parameter de perceptant
Sample Intake Point: 5	4 ft below top of well casing		
Field Measurements of See Field Parameters	n Sample (pH, conductivit		
Aliquot Amount	Analysis	Container	Preservative
(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	A HCI
	EDB (ethylene dibromide)	San	100
	N-hexane		
	Naphthalene		
√(2) 500 mL	NWTPH-Dx	Amber Glass	none
			C Town SER CO.
Sampler (signature) (Supervisor (signature)		Date/	2016

Well ID MW-18
Date 11/16/2014
Time Begin Purge 0733
Time Collect Sample 08:10

					(Ha)		
Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidit (NTU)
	0743	Jiggi L. Ji	7.52	507	14.8	6.90	5.28
	Q748		7.52	503	14.8	6.84	2.54
	0753		752	498	14.9	6.84	2.17
	0758		7,52	499	14,9	6.83	2.19
	&803		7.54	502	14.9	690	2.31
	CECE		7.55	503	15,0	6.97	244

Comments:	
Nitrogen Tank: 110 psi Throttle: 40 psi Cycle ID: 50 (20/6) CPM: 2 Purge Rate: mL/min 250 mL/min PID: 64 ppm (4/15/16)	
Water level fluctuation with pump cycle:	

Sampler's Initials AWY/JCM

MANDING INIGOROL Lall	k Lot C	Project No. <u>073</u>	<u>-93368-06.09A</u>
ite Location SeaTac	WASample ID MPLOTO	-MW-19-11/5/6 TTT	
ampling Location At	end of sample tubing	Topicos	
ow Flow Sampling	will be a strong to the second	a strance gains on	A PART OF THE WIND
echnical Procedure I	Reference(s) App E - Comp	liance Monitoring Plant F	Plan (Golder, Nov 2011)
ype of Sampler, QEC	Controller and Bladder Pu	ımp – Dedicated Tubin	APAR REPRESENTATION OF
ate 11/15/16	ner Banda var er staden generale er er er Ver Stade var er staden er	Time <u>1410</u>	The Part of the Control of the Contr
Iedia Water	and the second second	Station <u>MW-19</u>	en Experimento de la composición del composición de la composición de la composición de la composición del composición de la composición del composición
ample Type: g	rab time o	composite	space composit
ample Acquisition M	easurements (depth, volun	ne of static well water	발표 경우 아이들은 사는 아이들이 없는 것이 없는 것이 없었다.
	15 Free Product Thick		
	rement: 11/15/16 113	SERVICE CONTRACTOR FOR THE SERVICE OF THE SERVICE O	
[전 : [] : [[[[[]]]] [[]] [[]] [[]] [[]] [] [] [] [] [] [] [] [] [] [] [] []	eet below top of well casing		
Sample Intake Point: 5	Oft below top of well casing		
See Field Parameters S			
Aliquot Amount	<u>Analysis</u>	Container	<u>Preservative</u>
(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	
			HC1
	EDB (ethylene dibromide)	region (HCI
	EDB (ethylene	Hapanin I	HCI
	EDB (ethylene dibromide)	10.40	HCI
(2) 500 mL	EDB (ethylene dibromide) N-hexane	Amber Glass	none
(2) 500 mL	EDB (ethylene dibromide) N-hexane Naphthalene	Amber Glass	

Well ID MW-19	
Date 1 / 15/16	_
Time Begin Purge 1332	_
Time Collect Sample (L+10)	

Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
_	1347_	_	7.12	506	12.5	6,91	4.6
	1347		6.89	555	14.0	0.56	2,4
	1352		6.88	566	14.1	1.48	1.7
	1357		6.88	575	14.1	0.42	1.16
	1402	-	6.88	5.83	14.1	0,39	1.34
_	1407		6.88	586	14.1	0.37	0,81
	4530						
	,05,04,0	102172 1 7	V PS - 1				

Comments:		
Nitrogen Tank: 10 psi Throttle: 0 psi Cycle ID: 5		
CPM: 2 Purge Rate: 260 mL/min PID: 0,2 ppm		
Water level fluctuation with pump cycle:		

Sampler's Initials

echnical Procedure Reference(s) App E - Compliance Monitoring Plant Plan (Golder, November of Sampler QED Controller and Bladder Pump - Dedicated Tubing ate 11/15/10 Time 1/35 (edia Water Station MW-20 Ample Type: grab time composite space contample Acquisition Measurements (depth, volume of static well water and purged water tatic Water Level: 106,97 Free Product Thickness: 106,97 Free Product Th	lant/Site <u>Master Park</u>	Lot C	Project No. 073	3-93368-06.09A
ampling Location At end of sample tubing ow Flow Sampling echnical Procedure Reference(s) App E - Compliance Monitoring Plant Plan (Golder, Nov. ype of Sampler QED Controller and Bladder Pump - Dedicated Tubing ate 11/5/0 Time 1/3/5 ledia Water Station MW-20 ample Type: grab time composite space con ample Acquisition Measurements (depth, volume of static well water and purged water static Water Level: 106/9/7 Free Product Thickness: leasurements are in feet below top of well casing. ample Intake Point: 111 ft below top of well casing ample Description Coar As Organ eld Measurements on Sample (pH, conductivity, etc.) eee Field Parameters Sheet Aliquot Amount Analysis Container Preservat (5) 40 mL NWTPH-gasoline & VOA vial HCI BTEX EDB (ethylene dibromide) N-hexane Naphthalene	ite Location <u>SeaTac,</u>	WASample ID MPLOTC	-MW-20- 111516	(1000年) (1000年) (1000年)
echnical Procedure Reference(s) App E — Compliance Monitoring Plant Plan (Golder, Nov. type of Sampler QED Controller and Bladder Pump — Dedicated Tubing ate 11/15/10 Time				大型 11 电通讯 2
Aliquot Amount Aliquot Amount Aliquot Amount Analysis EDB (ethylene dibromide) N-hexane Naphthalene Time composite Station MW-20 Station MW-20 Station MW-20 Space container Static Water Level: 106.97 Free Product Thickness: 106.97 Free	ow Flow Sampling	recipies of the complete	enga e e en applicación	
Time 1/35 Itedia Water Station MW-20 ample Type: grab time composite space container preservat Static Water Level: 106.97 Free Product Thickness: 106.97	echnical Procedure R	Reference(s) App E - Comp	liance Monitoring Plant I	Plan (Golder, Nov 2011)
Time 1/35 Itedia Water Station MW-20 ample Type: grab time composite space container preservat Static Water Level: 106.97 Free Product Thickness: 106.97				上的第二位是他的对比比较多之间。上的xxxxx
Aliquot Amount Analysis EDB (ethylene dibromide) Aliquot Amount Called Analysis EDB (ethylene dibromide) N-hexane Naphthalene Time composite Space con MW-20 Space con	ate 11/15/16	Medicine of the participants of the second	E HERBEST DE MENTALESCE DE LA	entre de la
Amalysis Container Preservat (S) 40 mL NWTPH-gasoline & DOA vial HCI BTEX EDB (ethylene dibromide) N-hexane Naphthalene Nathic Water Level: 106.67 Free Product Thickness: 108.67 Fr	Iedia <u>Water</u>	a decimal and the second of		
Amalysis Container Preservat Aliquot Amount Analysis Container Preservat (5) 40 mL NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane Naphthalene	ample Type: gi	rab time o	composite	space composi
Static Water Level: 106.97 Free Product Thickness: Nate & Time of Measurement: Measurements are in feet below top of well casing. Sample Intake Point: 111 ft below top of well casing ample Description (Fig. 1) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 1) Free Product Thickness: Measurements are in feet below top of well casing ample Intake Point: 111 ft below top of well casing ample Description (Fig. 1) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness: Measurements are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness are in feet below top of well casing ample Description (Fig. 2) Free Product Thickness are in feet below t	ample Acquisition Mo			
Aliquot Amount (5) 40 mL NWTPH-gasoline & DA VOA vial EDB (ethylene dibromide) Naphthalene Naphthalene				
Aliquot Amount (5) 40 mL EDB (ethylene dibromide) Naphthalene Naphthalene				
(5) 40 mL NWTPH-gasoline & VOA vial HCl BTEX EDB (ethylene dibromide) N-hexane Naphthalene	leasurements are in fe	et below top of well casing		ALZA I
Aliquot Amount (5) 40 mL EDB (ethylene dibromide) Naphthalene Naphthalene	Sample Intake Point: 11	11 ft below top of well casi	na	
Aliquot Amount Analysis Container Preservat	mple Description	-lan - 16 Octo		
(5) 40 mL NWTPH-gasoline & VOA vial HCI BTEX EDB (ethylene dibromide) N-hexane Naphthalene	ee Field Parameters S	sheet		And the second s
BTEX EDB (ethylene dibromide) N-hexane Naphthalene	Aliquot Amount	Analysis	Container	Preservative
N-hexane Naphthalene	(5) 40 mL	- S. (1911 - 1918)	VOA vial	HCI
Naphthalene				631
2 mg/mm m m m 1525 mg/m 150g m m m m m m m m m m m m m m m m m m m		N-hexane		
(2) 500 mL NWTPH-Dx Amber Glass none		Naphthalene		
	(2) 500 mL	NWTPH-Dx	Amber Glass	none
	No.		The same and a state of the same of the sa	
				The Park State of the Control of the
				1990 stereous
ampler (signature) Date (1/19/66		011		The stometon

Well ID MW-20
Date 11/16/16
Time Begin Purge 1102
Time Collect Sample 1135

Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1102	1 13.49 3	6.77	248.9	13.0	6.84	5,30
	1117-		6.76	241.7	12.9	6.98	1,63
	1122		6.74	238.8	13.0	7.66	1.04
	1127		6.75	239,7	13.0	7.10	0,93
	1132		6.75	240,9	13.0	FIZ	0.41
		13938					
		5°21 . Y	this si				
Lije nil							
77225		<u> </u>			Bessell Mon:		
	المستورات الم						
	= ==		W BUEE	Some el al ma	1,		#FAIR.
					8.5 F		180 E 10 TO THE
						La Lilla III a	10/17/04/2/17

Comments:		 -	N		
Nitrogen Tank: 110 Throttle: 70	_psi psi				
Cycle ID: 50 CPM: Z					
Purge Rate: 240 PID: 0.2	mL/min ppm				
,					
Water level fluctuation with	h pump cycle:			_	

Sampler's Initials

Plant/Site <u>Master Parl</u>	c Lot C	Project No. <u>073</u>	3-93368-06.09A
Site Location <u>SeaTac</u>	WASample ID MPLOT	C-MW-21- 111516	A And San
Sampling Location At	end of sample tubing		Land Authorities
Low Flow Sampling	LANGE THE REST	esperie allere	of grace green they are need
Technical Procedure 1	Reference(s) App E – Con	npliance Monitoring Plant F	Plan (Golder, Nov 2011)
Type of Sampler <u>QED</u>	Controller and Bladder F	Pump - Dedicated Tubin	l q
Date 11/15/16	an make a 12 milional and a second a second and a second and a second and a second and a second	Time 1045	
Media Water		Station MW-21	Carry Control of Carry Control
Sample Type: g	<u>rab</u> time	composite	space composite
Sample Acquisition M	easurements (depth, volu	ime of static well water	and purged water, etc.)
	2.97 Free Product Thic		
Date & Time of Measu			
Measurements are in f	eet below top of well casi	ng.	Aleman Jahan Aleman and Aleman
Sample Intake Point: 1	07 ft below top of well ca	sing	
See Field Parameters S Aliquot Amount	n Sample (pH, conductive Sheet Analysis		
	The traction opinion and the second second	<u>Container</u>	Preservative
(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
,	EDB (ethylene dibromide)	38	The second secon
f-	N-hexane	H	2020 ENG TOTO (200 ENTERING)
,	Naphthalene		
(2) 500 mL	NWTPH-Dx	Amber Glass	none
			And the second second
Sampler (signature) Supervisor (signature)	Caffly 16 Hold	Date	

Well ID MW-21
Date 11/15/16
Time Begin Purge 10//
Time Collect Sample 1045

					pT		
Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp.	DO (mg/L)	Turbidity (NTU)
	1021		634	287.9	13.4	6,58	24.9
	1026		6,32	2886	13 3	6.34	17,5
	1031	_	6.31	289. 2	13,4	6,31	10.8
	1036	_	6,30	289.8	13.4	6,30	6.99
_	1041		6.30	290.1	BU	6.29	4.51
						1	/
		=					-
					- mai 2	= 2 B	en XII E
				**0,			
							Anglost Tipp - 112
				- ,			
			- Na		- 12	_	10

Comments:		
Nitrogen Tank: 110 psi Throttle: 60 psi Cycle ID: 50 CPM: 7		
Purge Rate: 246 mL/min PID: 6 0 ppm		
Water level fluctuation with pump cycle:		

Sampler's Initials_

Plant/Site Master Park	c Lot C	Project No.	073-93368-06.09A
Site Location SeaTac	WASample ID MPLOTO	-MW-22-11/6/6	TO SEE STANFFEE
Sampling Location At		The second secon	MPLOTC-MW-22-DUP- المرارز
Low Flow Sampling	the average of the second	Arrego and an integral	
Technical Procedure 1	Reference(s) App E - Comp	liance Monitoring P	lant Plan (Golder, Nov 2011)
Type of Sampler QED	Controller and Bladder Pu	ımp – Dedicated T	ubing
Date 11/16/16	distribution of the second of	Time	1120 (Dup)
Media Water	Britis 2 de La Gal	Station MW-22	
Sample Type: g	<u>rab</u> time o	composite	space composite
Sample Acquisition M	easurements (depth, volur	ne of static well w	ater and purged water, etc.)
Static Water Level: &	7,43 Free Product Thick	ness:	
Date & Time of Measu	rement: 11/16/16	PID OIL	(a) 1031
Measurements are in f	eet below top of well casing		
Sample Intake Point: 8	9 ft below top of well casin	g <u>1</u>	Assertance for
Field Measurements of See Field Parameters See Aliquot Amount	n Sample (pH, conductivit	y, etc.)	Preservative
A TOTAL OF THE PROPERTY OF THE PARTY OF THE		Standing my may have the	
(5 x 2) 40 mL (10 wh)	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
1	Naphthalene		
2× (2) 500 mL	NWTPH-Dx	Amber Glass	none
(4+0/21)			
Sampler (signature) <u> </u>	Zun Bille	Date <u>11</u> Date	116/2016

Well ID Mlu 27	+ MW-22-DUP
Date 11/16/16	
Time Begin Purge 1039	
Time Collect Sample 1110/	11700 (pup)

ime Collect Sa	mpie	0/11/20	pur)		(PH)		
Water Level feet bmp	Time	Volume Purged	pН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1049	Action to	679	146.5	13.2	1.50	19.8
_	1054		6.83	164.7	13.2	1,40	10.3
~	1059		6,84	192.7	13.2	1.22	7.52
	1104	-	6.67	221.0	13.2	1.13	5.50
_	1109		6.89	245.8	13.1	1.00	
			11-201 11-201 11-201 11-201 11-201				
	V.	135					A THE PARTY OF

Comments:	
Nitrogen Tank: 110 psi Throttle: 65 psi Cycle ID: 50	
Purge Rate: 360 mL/min PID: 01 ppm	
Water level fluctuation with pump cycle:	

Sampler's Initials_

Plant/Site <u>Master Par</u>	k Lot C	Project No. <u>07</u>	3-93368-06.09A
lite Location SeaTac	, WASample ID PORT-M	IW-B- 111616	
Sampling Location A	t end of sample tubing		
Low Flow Sampling	### J#	State of the same	
Technical Procedure 1	Reference(s) App E – Com	pliance Monitoring Plant	Plan (Golder, Nov 2011)
	Controller and Bladder F		Company of the second s
	The state of the s		APER.
		F	-В
	<u>rab</u> time		
ample Acquisition M	easurements (depth, volu		
	Free Product Thic	[14] [2] 그리고 [16] 다시 [16] [16] [16] [17] [16] [16] [16] [16] [16] [16] [17] [17] [17] [17] [17] [17]	
Date & Time of Measu	rement: 17/16/16 @	(212	
<u>Measurements are in f</u>	eet below top of well casir	ıg.	
Sample Intake Point: 8	9 ft below top of well casi	1g	
See Field Parameters		The Santa Company of the Company of	
Aliquot Amount	<u>Analysis</u>	Container	<u>Preservative</u>
(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)	3.75	Samuel Control
	N-hexane		
	Naphthalene		
1 (2) 500 mL	NWTPH-Dx	Amber Glass	none
Commission (Commission Commission	a recommendation of the county		FR ON STREET
ampler (signature)(0. 400.1	Date 11/16/20	a d

Well ID MW-B (&+ Wall)
Date M16/16
Time Begin Purge 1218
Time Collect Sample 1255

-1107					(617)	- (94 g) (1 - 1)	_40_20_00
Water Level feet bmp	Time	Volume Purged	рН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1226		6.71	189.0	13.1	4.97	76.6
	1233		6.70	187.2	13,0	4,71	49.9
-	1236	200	6.69	1877	13.0	4.52	37.5
Partie and	4243		670	169.2	13.1	4.33	24.0
	1248	الشنيع.	6.70	170.7	13.1	4.13	16.0
	1253	er.	6.70	192.2	13.1	3,97	11.7
26/11/21/21	7.9	72	1000				

Comments:	= = -		
Nitrogen Tank: 110 psi Throttle: 70 psi Cycle ID: 50 (20/16) CPM: 2		*	
Purge Rate: ~160 mL/min PID: 0.1 ppm (3 To(· 1	
Water level fluctuation with pump cycle:			

Sampler's Initials June / Jim

lant/Site Master Park	C LOT C	Project No. <u>073</u>	-96668-06.09A
ite Location <u>SeaTac</u>	, WA	_ Sample ID MP/	LOTC-FB-111616
ampling Location <u>At</u>	end of sample tubing		3
ow Flow Sampling	er en egenerative en en en en	er frækkligskoltalgsbys	SUBSTITUTE AND DESCRIPTIONS
echnical Procedure I	Reference(s) App E - Comp	liance Monitoring Plant F	Plan (Golder, Nov 2011)
ype of Sampler <u>QEE</u>	Controller and Bladder Pu	mp - Dedicated Tubin	
ate 11/16/16		Time 1345	
Iedia Water	The same of the sa	Station Mw-7	
ample Type: g	<u>rab</u> time c	omposite	space composit
ample Acquisition M	easurements (depth, volun	ne of static well water	and purged water, etc.)
Static Water Level:	Free Product Thick	ness: —	
Date & Time of Measur	rement:		
deasurements are in f	eet below top of well casing		
Sample Intake Point: ample DescriptionL	ab provided DI	hate	
ample Description <u>l</u> ield Measurements of See Field Parameters S	n Sample (pH, conductivity	/, etc.)	
ample Description <u>l</u> ield Measurements of the Bee Field Parameters S Aliquot Amount	n Sample (pH, conductivity Sheet Analysis	(, etc.)	Preservative
ample Description <u>l</u> ield Measurements of See Field Parameters S	n Sample (pH, conductivity	/, etc.)	Preservative HCl
ample Description <u>l</u> ield Measurements of the Bee Field Parameters S Aliquot Amount	n Sample (pH, conductivity Sheet Analysis NWTPH-gasoline &	(, etc.)	The second secon
ample Description <u>l</u> ield Measurements of the Bee Field Parameters S Aliquot Amount	Analysis NWTPH-gasoline & BTEX EDB (ethylene	(, etc.)	The second secon
ample Description <u>l</u> ield Measurements of the Bee Field Parameters S Aliquot Amount	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide)	(, etc.)	The second secon
ample Description <u>l</u> ield Measurements of the Bee Field Parameters S Aliquot Amount	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane	(, etc.)	The second secon
ield Measurements of See Field Parameters See Aliquot Amount (5) 40 mL	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane Naphthalene	Container VOA vial	HCl
ield Measurements of See Field Parameters See Aliquot Amount (5) 40 mL	Analysis NWTPH-gasoline & BTEX EDB (ethylene dibromide) N-hexane Naphthalene	Container VOA vial	HCl

Water Level feet bmp	Time	Volume Purged	pН	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	4						
	\						
	$\overline{}$						
_							
							77.11
							1 2-
Comments:		I	5-11	plank A rioled DI			
Nitrogen Tank: Throttle:	<u> </u>	psi T	, રાલ [Jan 17	on		
Cycle ID:		La	b Pa	riched D1	hate	\	
CPM: Purge Rate:		mL/min					
PID:		ppm					

APPENDIX B
DATA TABLES AND TREND GRAPHS



March 2018 073-93368-06.09A Page 1 of 1

Table B-1: Summary of Groundwater Sampling Results - Well MW-06 Sea-Tac Development Site, Seatac WA

				Field P	arameter	's							Analytic	cal Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
19-Mar-10	369.68	60.03	309.65	5.96	13.5	409	0.87	3.75	< 0.10	< 1.0	< 1.0	< 1.0	< 1.0	< 0.0096	< 1.0	< 5.0	-	-
11-Feb-14	369.68	59.03	310.65	6.13	12.1	139	0.91	16.4	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.08	< 0.20	< 0.50	< 0.10	< 0.20
28-May-14	369.68	-	-	6.14	14.3	454	1.03	3.71	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20 UJ	< 0.50	< 0.10	< 0.20
10-Sep-14	369.68	-	-	6.27	15.9	312.0	1.52	11.8	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-Dec-14	369.68	-	-	6.27	13.6	314.0	2.14	6.8	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
17-Jun-15	369.68	-	-	6.32	14.9	331.0	3.96	0.8	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-Dec-15	369.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-May-16	369.68	61.41	308.27	6.36	13.9	396.0	10.59	-	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	0.19 J	<0.50	<0.10	<0.20
15-Nov-16	369.68	59.51	310.17	6.34	13.7	352	7.42	418	0.11	<0.20	<0.20	<0.20	<0.40	<0.20	0.1 J	<0.50	0.17	<0.20
Clean-up Level								ted landuse) ted landuse)	0.8 ^d /1.0 ^e NSA	5 ⁹ 5 ⁱ	1000 ⁹ 640	700 ⁹ 800	1000 ^h 1600	0.01 ^h 0.022	NSA 480	160 160	0.5 NSA	0.5 NSA

Notes:			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
a	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting
e	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
		J	The constituent was positively identified

mg/L Miligrams per liter

µg/L Micrograms per liter

NTU Nephelometric Turbidity Unit

µmhos/cm Micromhos per centimeter

< Analyte not detected above the reporting limit shown

MTCA Model Toxics Control Act

MCL Maximum Containment Level

NSA No Standard Available

TOC Top of casing inside PVC well

°C Degrees Celsius

J The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.

UJ The constituent was analyzed for, but was not detected above the reported sample quantitation limit; however, the

The constituent was analyzed for, but was not detected above the reported sample quantitation limit; however, the value reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.



Table B-2: Summary of Groundwater Sampling Results - Well MW-07 Sea-Tac Development Site, Seatac WA

				Field P	aramete	rs							Analytic	al Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
18-Mar-10	358.70	48.69	310.01	6.61	13.3	354	1.41	5.18	26	230	1,100	360	4630	0.010	160	210	-	-
13-Feb-14	358.69	47.72	310.97	6.56	14.3	131	0.35	3.87	29	25	110	180	2022	< 3.8	190	220	11 J	< 0.20
29-May-14	358.69	47.65	311.04	6.65	16.4	379	0.13	2.84	27	14	80	190	1811	< 1.5	140	210 B	11 J	< 0.20
11-Sep-14	358.69	47.95	310.74	6.73	16.5	373	0.35	2.28	36	17	81	260	2110	< 0.028	280	300 B J	11	0.41 J
4-Dec-14	358.69	47.95	310.74	6.70	15.7	333	0.20	2.95	26	21	66	200	1507	< 0.07	170	180	11 J	0.32 J
18-Jun-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	93 J	96 J	5.4	0.24 J
3-Dec-15	358.69	49.96	308.73	6.44	15.9	526	0.14	2.91	23	77	1200	270	1550	< 1.5	160	69	4.9 J	< 0.20
4-May-16	358.69	49.05	309.64	6.68	16.0	640	1.02	4.57	12	30	500	170	970	<0.20	150	68 J	6.5 J	0.30 J
16-Nov-16	358.69	48.50	310.19	6.54	15.9	411	1.39	3.95	8.3	4.3	10	40	85	<0.20	10.8 J	37	2.4	<0.20
Clean-up Level								ted landuse) ted landuse)	0.8 ^d /1.0 ^e NSA	5 ⁹ 5 ⁱ	1000 ^g 640	700 ^g 800	1000 ^h 1600	0.01 ^h 0.022	NSA 480	160 160	0.5 NSA	0.5 NSA
Notes:		MTCA Method B for Groundwater (unrestricted landuse) NSA 5 ⁱ 640 800 1600 0.022 480 160 NSA NSA																

notes.			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
a	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
e	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
		J	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
		В	Analyte detected in an associated Method Blank at a concentration greater than one-half of laboratory's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.



Table B-3: Summary of Groundwater Sampling Results - Well MW-09 Sea-Tac Development Site, Seatac WA

		Field Parameters											Analytic	al Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
19-Mar-10	362.14	52.30	309.84	6.19	14.2	294	0.13	7.18	16	170	65	400	1434	0.016	100	160	-	-
12-Feb-14	362.13	51.45	310.68	6.49	12.6	99.5	0.28	3.10	7.5	30	8.1	150	98	< 0.08	16	120	1.6 J	< 0.20
29-May-14	362.13	51.41	310.72	6.44	15.0	295	0.14	1.01	7.8	32	9.4	170	112	< 0.37	5.60	92 B	2.3 J	< 0.20
10-Sep-14	362.13	-	-	6.49	15.7	310	0.20	3.85	5.6	17	4.6	100	47.2	< 0.010*	< 0.20	74	2.8	< 0.20
3-Dec-14	362.13	51.68	310.45	6.47	13.6	307	0.18	2.37	4.1	14	2.8	76	8.8	< 0.07	< 0.20	44	1.9	< 0.20
17-Jun-15	362.13	51.67	310.46	6.48	15.1	331	0.18	0.75	1.7	7.2	1.3	40	1.6	< 0.07	< 0.20	18	1.5	< 0.20
3-Dec-15	362.13	-	-	6.37	14.1	477	0.96	3.91	2.2 J	8.4	1.5 J+	73	1.45 J+	< 0.07	< 0.20	5.7	1.0 J	< 0.20
3-May-16	362.13	-	-	6.51	18.3	221	4.68	1.08	<0.10	0.15 J	<0.20	0.71	<0.40	<0.20	<0.20	<0.50	0.22 J	<0.20
15-Nov-16	362.13	52.15	309.98	5.94	14.5	234	1.41	0.80	<0.10	0.23	0.23	0.56	0.32	<0.20	<0.20	<0.50	0.20	<0.20
Clean-up							•	ted landuse)	0.0 /	5 ^g	1000 ^g	700 ^g	1000 ^h	0.01 ^h	NSA	160	0.5	0.5
Level Notes:			МТ	CA Metho	d B for Gr	oundwater	(unrestrict	ted landuse)	NSA	5 ⁱ	640	800	1600	0.022	480	160	NSA	NSA

Notes:			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
a	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
e	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
		J	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
*	Reported at the Limit of Quantitation (LOQ). The LOQ is less than MTCA CULs.	J+	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.
		В	Analyte detected in an associated Method Blank at a concentration greater than one-half of laboratory's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.



Table B-4: Summary of Groundwater Sampling Results - Well MW-12 Sea-Tac Development Site, Seatac WA

				Field P	'aramete	's							Analytic	cal Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (μmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
15-Mar-10	364.88	54.99	309.89	6.38	14.5	472	0.03	40.8	36	230	2,400	1,300	5140	0.16	210	520	-	-
13-Feb-14	364.83	55.02	309.81	7.76	14.1	125	10.50	3.43	8.6	79	410	79	970	< 3.8	< 10	25	1.1 J	< 0.20
29-May-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	< 0.20	< 0.50	0.34 J	< 0.20
11-Sep-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	< 0.010*	0.78	0.53 B J+	0.35	< 0.20
4-Dec-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	0.18 J	0.68	0.20	< 0.20
18-Jun-15	364.83	-	-	8.09	16.3	208	9.90	2.44	< 0.25	< 0.20	< 0.20	0.10 J	2.1	< 0.07	0.26	< 0.50	0.45	< 0.20
3-Dec-15	364.83	56.74	308.09	-	-	-	-	-	< 0.25	< 0.20	< 0.20	< 0.20	<0.40	< 0.07	< 0.20	< 0.50	0.29	< 0.20
4-May-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	<0.20	<0.50	0.18 J	<0.20
16-Nov-16	364.83	55.20	309.63	7.84	14.9	199	8.45	13.40	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	0.16	<0.20
Clean-up								ted landuse)	0.8 ^d /1.0 ^e	5 ⁹	1000 ^g	700 ^g	1000 ^h	0.01 ^h	NSA	160	0.5	0.5
Level			MT	CA Metho	d B for Gr	oundwater	(unrestrict	ted landuse)	NSA	5 ⁱ	640	800	1600	0.022	480	160	NSA	NSA

Notes:			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
a	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see	µmhos/cm	Micromhos per centimeter
d	Table 1). Date/time is sampling time. When benzene is present.	<	Analyte not detected above the reporting limit shown
е	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
		J	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
*	Reported at the Limit of Quantitation (LOQ). The LOQ is less than MTCA CULs.	J+	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.
		В	Analyte detected in an associated Method Blank at a concentration greater than one-half of laboratory's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.



Table B-5: Summary of Groundwater Sampling Results - Well MW-13 Sea-Tac Development Site, Seatac WA

		Field Parameters											Analytic	al Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (μmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
19-Mar-10	365.42	55.66	309.76	6.28	12.8	271	0.16	72.1	33	14	230	890	4500	0.029	130	410	-	-
12-Feb-14	365.42	54.35	311.07	6.57	13.2	73.3	1.41	4.28	14	< 0.25	3.9	240	2070	< 0.08	< 0.20	33	1.4 J	< 0.20
29-May-14	365.42	55.62	309.80	6.84	14.7	182	10.59	4.24	0.14	< 0.25	< 0.25	0.85	18.54	< 0.07	0.11 J	< 0.50	0.32	< 0.20
10-Sep-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	< 0.010*	< 0.20	< 0.50	0.29	< 0.20
4-Dec-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	< 0.20	< 0.50	0.31	< 0.20
18-Jun-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	< 0.20	0.61	0.27	< 0.20
2-Dec-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	< 0.20	< 0.50	0.26	< 0.20
3-May-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	<0.20	<0.50	0.12 J	<0.20
15-Nov-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	<0.20	<0.50	0.19	<0.20
Clean-up							•	ted landuse)	0.0 / 1.0	5 ^g	1000 ^g	700 ^g	1000 ^h	0.01 ^h	NSA	160	0.5	0.5
Level			MT	CA Metho	d B for Gro	oundwater	(unrestrict	ted landuse)	NSA	5 ⁱ	640	800	1600	0.022	480	160	NSA	NSA

Notes:			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
a	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
e	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
		J	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
*	Reported at the Limit of Quantitation (LOQ). The LOQ is less than MTCA CULs.	J+	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.



Table B-6: Summary of Groundwater Sampling Results - Well MW-17A Sea-Tac Development Site, Seatac WA

				Field P	arametei	rs			Analytical Data									
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) ^f	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
17-Mar-10	385.81	76.29	309.52	6.51	9.3	145	0.52	142.0	1.70	< 1.0	< 1.0	4.0	27	< 0.0095	< 1.0	63	-	-
11-Feb-14	394.00	83.80	310.20	6.36	11.3	82.5	1.06	137.0	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.08	< 0.20	0.74	< 0.10	< 0.20
29-May-14	394.00	84.00	310.00	6.22	12.2	175	2.06	39.7	< 0.10	0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	0.62 J+	< 0.10	< 0.20
10-Sep-14	394.00	84.18	309.82	6.28	12.4	162	1.42	18.8	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	0.64 J	< 0.10	< 0.20
5-Dec-14	394.00	84.18	309.82	6.42	11.7	167	1.09	31.8	< 0.10 UJ	0.54 J	< 0.25 UJ	< 0.25 UJ	0.63 J	< 0.07	< 0.20 UJ	2.8	< 0.10	< 0.20
17-Jun-15	394.00	84.16	309.84	6.29	12.9	158	3.13	29.6	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
18-Dec-15	394.00	85.95	308.05	6.57	11.8	127	0.20	23.7	0.05 J	0.75	< 0.20	0.08 J	< 0.40	< 0.07	< 0.20	0.98 J	< 0.10	< 0.20
3-May-16	394.00	85.21	308.79	6.51	13.1	132	4.60	8.41	<0.10	0.33	<0.20	<0.20	<0.40	<0.20	0.11 J	0.71 J	<0.10	<0.20
15-Nov-16	394.00	84.57	309.43	6.46	12.6	122	3.76	10.2	<0.10	0.14 J	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
Clean-up								ed landuse)		5 ⁹	1000 ^g	700 ^g	1000 ^h	0.01 ^h	NSA	160	0.5	0.5
Level			MT	CA Metho	d B for Gro	oundwater	(unrestrict	ed landuse)	NSA	5 ⁱ	640	800	1600	0.022	480	160	NSA	NSA

NOIGS.			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
а	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
е	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
		J	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
		UJ	The constituent was analyzed for, but was not detected above the reported sample quantitation limit; however, the value reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
		J+	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.



Table B-7: Summary of Groundwater Sampling Results - Well MW-18 Sea-Tac Development Site, Seatac WA

				Field P	aramete	rs							Analytic	Analytical Data									
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (μmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)					
18-Mar-10	360.45	50.58	309.87	6.69	14.2	586	0.11	5.39	52	2,600	6,000	1,700	6690	2.5	350	420	-	-					
12-Feb-14	360.45	49.01	311.44	7.62	13.8	175	8.11	2.89	1.0	27	13	17	91.3	< 0.08	1.1	4.0	0.77 J	<0.20					
29-May-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	0.64	0.84 J+	0.33 J	<0.20					
11-Sep-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					
4-Dec-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	0.10 J	< 0.50	0.24	< 0.20					
18-Jun-15	360.45	49.51	310.94	8.05	15.2	515	10.89	49.6	< 0.25	0.67	0.54	0.2	1.10	< 0.07	< 0.20	< 0.50	0.38	< 0.20					
3-Dec-15	360.45	-	-	8.28	14.8	455	10.21	14.6	< 0.25	0.57	4.8	0.3	9.80	< 0.07	0.25	0.67	0.13	< 0.20					
4-May-16	360.45	51.12	309.33	7.27	14.8	513	4.53	4.77	0.22	8.0	5.5	8.2	29.3	<0.20	1.50	1.5 J	0.37 J	<0.20					
16-Nov-16	360.45									3.6	1.2	2.1	9.0	<0.20	0.39	<0.50	0.48	<0.20					
Clean-up								ted landuse)		5 ⁹	1000 ^g		1000 ^h	0.01 ^h	NSA	160	0.5	0.5					
Level Notes:			МТ	CA Metho	d B for Gr	oundwater	(unrestric	ted landuse)	NSA	5 ⁱ	640	800	1600	0.022	480	160	NSA	NSA					

NOIGS.			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
а	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
е	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
		J	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
*	Reported at the Limit of Quantitation (LOQ). The LOQ is less than MTCA CULs.	J+	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.



Table B-8: Summary of Groundwater Sampling Results - Well MW-19 Sea-Tac Development Site, Seatac WA

				Field F	aramete	rs							Analytic	cal Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (μmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
18-Mar-10	356.61	46.60	310.01	7.04	12.5	275	0.07	84.0	1.3	8.9	1.8	43	6.0	< 0.0096	2.8	< 5.0	-	-
11-Feb-14	356.61	45.46	311.15	6.98	12.7	105	0.15	3.20	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.08	4.3	< 0.50	< 0.10	< 0.20
29-May-14	356.61	45.74	310.87	6.96	13.7	290	0.04	0.42	< 0.10	< 0.25	0.40	< 0.25	0.58	< 0.07	0.3	< 0.50	< 0.10	< 0.20
10-Sep-14	356.61	45.73	310.88	6.93	14.5	379	0.16	0.30	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-Dec-14	356.61	45.73	310.88	6.82	13.3	380	0.20	0.86	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
17-Jun-15	356.61	45.94	310.67	6.75	14.3	400	0.26	0.86	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
2-Dec-15	356.61	47.72	308.89	6.87	13.6	530	0.09	2.60	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-May-16	356.61	46.81	309.80	6.79	15.2	390	0.87	1.23	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
15-Nov-16	356.61	46.15	310.46	6.88	14.1	586	0.37	0.81	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
Clean-up								ted landuse)		5 ⁹	1000 ^g		1000 ^h	0.01 ^h	NSA	160	0.5	0.5
Level			МТ	CA Metho	d B for Gr	oundwater	(unrestrict	ted landuse)	NSA	5 ⁱ	640	800	1600	0.022	480	160	NSA	NSA

Notes:			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
a	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
е	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius



Table B-9: Summary of Groundwater Sampling Results - Well MW-20 Sea-Tac Development Site, Seatac WA

				Field P	aramete	rs							Analytic	cal Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (μmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
17-Mar-10	430.98	121.79	309.19	6.63	10.8	359	4.82	4.37	< 0.10	< 1.0	< 1.0	< 1.0	< 1.0	< 0.0095	< 1.0	< 5.0	-	-
20-Mar-14	416.61	106.13	310.48	6.74	11.4	377	7.82	3.32	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50 UJ	< 0.10	< 0.20
29-May-14	416.61	106.66	309.95	6.73	12.3	257	6.37	0.82	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
10-Sep-14	416.61	106.53	310.08	6.83	13.2	355	7.55	0.69	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-Dec-14	416.61	106.53	310.08	6.79	12.4	355	7.67	1.30	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
17-Jun-15	416.61	106.68	309.93	6.77	13.3	350	7.41	1.06	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-Dec-15	416.61	108.61	308.00	7.66	12.4	290	6.76	4.28	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-May-16	416.61	107.56	309.05	6.58	13.3	138	5.31	3.55	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
15-Nov-16	416.61	416.61 106.97 309.64 6.75 13.0 241 7.12							<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
Clean-up Level								ted landuse) ted landuse)	0.8 ^d /1.0 ^e NSA	5 ⁹ 5 ⁱ	1000 ^g 640	700 ^g 800	1000 ^h 1600	0.01 ^h 0.022	NSA 480	160 160	0.5 NSA	0.5 NSA
Notes:																		

quality control criteria were not met.

Notes.			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
а	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see	µmhos/cm	Micromhos per centimeter
	Table 1). Date/time is sampling time.		
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
е	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
		UJ	The constituent was analyzed for, but was not detected above the reported sample quantitation limit; however, the value reported is an estimated value because the result is less than the quantitation limit or



Table B-10: Summary of Groundwater Sampling Results - Well MW-21 Sea-Tac Development Site, Seatac WA

				Field P	arametei	's							Analytic	cal Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
17-Mar-10	390.79	81.26	309.53	5.97	11.5	257	3.21	5.13	< 0.10	< 1.0	< 1.0	< 1.0	< 1.0	< 0.0096	< 1.0	< 5.0	-	-
11-Feb-14	412.85	102.34	310.51	6.09	11.9	110	6.31	11.2	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.08	< 0.20	< 0.50	< 0.10	< 0.20
29-May-14	412.85	102.61	310.24	6.15	12.5	277	6.28	1.71	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
10-Sep-14	412.85	102.66	310.19	6.15	13.5	283	6.25	1.95	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-Dec-14	412.85	102.66	310.19	6.20	12.3	304	5.54	13.1	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
17-Jun-15	412.85	102.81	310.04	6.12	13.5	326	6.12	1.98	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-Dec-15	412.85	104.70	308.15	5.17	12.6	341	6.21	1.39	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
3-May-16	412.85	104.40	308.45	6.28	13.7	315	9.30	3.86	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
15-Nov-16	412.85	102.97	309.88	6.30	13.4	290	6.29	4.51	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
Clean-up							•	ted landuse)	0.0 / 1.0	5 ⁹	1000 ^g	700 ^g	1000 ^h	0.01 ^h	NSA	160	0.5	0.5
Level			МТ	CA Metho	d B for Gro	oundwater	(unrestric	ted landuse)	NSA	5 ⁱ	640	800	1600	0.022	480	160	NSA	NSA

NOIGS.			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
a	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
e	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius



March 2018 073-93368-06.09A Page 1 of 1

Table B-11: Summary of Groundwater Sampling Results - Well MW-22 Sea-Tac Development Site, Seatac WA

				Field P	aramete	's							Analytic	cal Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (μmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) [†]	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
16-Mar-10	393.31	83.63	309.68	6.65	12.5	586	0.25	82.0	15	23	74	1400	2420	< 0.0095	15	380	-	-
20-Mar-14	393.31	82.93	310.38	6.68	12.2	381	0.87	64.8	17	5.7	12	990	1503	< 0.07	7.8	400 J	1.2 J	< 0.20
28-May-14	393.31	82.72	310.59	6.73	13.2	383	0.30	2.26	18	3.9	9.7	940	1900	< 0.07	8.6	420 B	1.7 J	< 0.20
12-Sep-14	393.31	82.98	310.33	6.81	13.7	423	0.29	1.03	16	4.8	9.3	690	1103	< 1.5	9.8	460 B J	1.1 J	< 0.20
5-Dec-14	393.31	82.98	310.33	6.81	12.8	378	0.26	3.71	16	8.7	11	740	1103	< 1.5	7.2	380	0.86 J	< 0.20
25-Jun-15	393.31	82.95	310.36	6.82	13.6	354	0.52	3.34	19	5.9	7.4	750	1402	< 0.74	4.7	310	1.0 J	< 0.20
2-Dec-15	393.31	84.83	308.48	6.87	13.0	325	0.25	3.42	19	4.4	6.2	840	1503	< 1.5	3.0 J	240	1.5 J	< 0.20
4-May-16	393.31	83.85	309.46	6.84	13.3	294	0.39	3.61	15	3.8	5.0	780	1403	<0.20	8.6	470 Q	2.8 J	<0.20
16-Nov-16	393.31	83.43	309.88	6.89	13.1	246	1.00	5.50	11	4.0	3.9	631	882	<0.20	5.9 J+	438	1.89	<0.20
Clean-up Level							-	ted landuse) ted landuse)	0.8 ^d /1.0 ^e NSA	5 ^g 5 ⁱ	1000 ^g 640	700 ^g 800	1000 ^h 1600	0.01 ^h 0.022	NSA 480	160 160	0.5 NSA	0.5 NSA

Notes:			
feet bgs	Feet below ground surface	-	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
a	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see	µmhos/cm	Micromhos per centimeter
d	Table 1). Date/time is sampling time. When benzene is present.	<	Analyte not detected above the reporting limit shown
е	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
		J	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
		J+	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.
		В	Analyte detected in an associated Method Blank at a concentration greater than one-half of laboratory's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.



March 2018 073-93368-06.09A Page 1 of 1

Table B-12: Summary of Groundwater Sampling Results - Well PORT-MW-B Sea-Tac Development Site, Seatac WA

				Field P	arametei	's							Analytic	al Data				
Date Sampled ^{b,c}	TOC Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	pH (standard units)	Temperature (°C)	Conductivity (μmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	NWTPH-Gasoline (mg/L)	Benzene (μg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (ethylene dibromide) (µg/L) ^f	N-hexane (µg/L)	Naphthalene (µg/L)	NWTPH-Diesel (mg/L)	NWTPH-Motor Oil (mg/L)
3-Aug-11	400.00	-	-	-	-	-	-	-	0.20	1.3	< 1.0	13	3.4	< 0.01	< 1.0	13	0.28	< 0.25
20-Mar-14	400.00	89.70	310.30	6.55	12.3	267	6.16	ز_	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50 UJ	< 0.10	< 0.20
28-May-14	400.00	89.50	310.50	6.50	14.2	317	4.63	98.3	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
12-Sep-14	400.00	89.71	310.29	6.56	14.0	266	3.56	6.18	< 0.10	< 0.25	< 0.25	1.1	1.9	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
5-Dec-14	400.00	89.71	310.29	6.57	12.6	265	4.07	84.1	0.11	< 0.25	< 0.25	1.1	1.0	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
25-Jun-15	400.00	89.67	310.33	6.51	14.3	290	3.80	4.2	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07	< 0.20	< 0.50	< 0.10	< 0.20
2-Dec-15	400.00	91.61	308.39	6.56	13.0	267	2.34	1.8	< 0.25	< 0.20	< 0.20	0.3	0.40 J+	< 0.07	< 0.20	2.3 J+	< 0.10	0.49
4-May-16	400.00	90.55	309.45	6.72	13.2	219	2.59	7.4	<0.10	0.08 J	<0.20	0.74	0.5	<0.20	<0.20	0.83 J	<0.10	<0.20
16-Nov-16	400.00	90.31	309.69	6.70	13.1	192	3.97	11.70	<0.10	0.03 J	<0.20	0.04 J	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
Clean-up		MTCA Method A for Groundwater (unrestricted la							0.0 /	5 ⁹	1000 ^g	700 ^g	1000 ^h	0.01 ^h	NSA	160	0.5	0.5
Level			МТ	CA Metho	d B for Gro	oundwater	(unrestrict	ted landuse)	NSA	5 ⁱ	640	800	1600	0.022	480	160	NSA	NSA

feet bgs	Feet below ground surface	_	Not measured or not available
feet bmp	Feet below measuring point		Result exceeds Clean-up Level (CUL)
feet msl	Feet above mean sea level	mg/L	Milligrams per liter
а	Well not surveyed, elevation estimated.	μg/L	Micrograms per liter
b	IAS system not in operation.	NTU	Nephelometric Turbidity Unit
С	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.	µmhos/cm	Micromhos per centimeter
d	When benzene is present.	<	Analyte not detected above the reporting limit shown
е	When benzene is not present.	MTCA	Model Toxics Control Act
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.	MCL	Maximum Containment Level
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs	NSA	No Standard Available
h	Value is more protective than Federal MCLs.	TOC	Top of casing inside PVC well
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.	°C	Degrees Celsius
j	Turbidity out of range. Well was purged using a bailer.	J	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
		UJ	The constituent was analyzed for, but was not detected above the reported sample quantitation limit; however, the value reported is an estimated value because the result is less than the quantitation limit or quality control criteria

J+

because the result may be biased high.



The constituent was positively identified and detected; however, the concentration reported is an estimated value

























