November 11, 2016 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 – SPRING 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) May 3 and 4. 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 newly installed 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).

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

Golder Associates Inc.
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052 USA
Tel: (425) 883-0777 Fax: (425) 882-5498 www.golder.com

Appendix A presents the laboratory analytical reports for all analyses. Sampling activities were documented on Sample Integrity Data Sheets (SIDS), which are provided in Appendix B. Appendix C presents the Data Validation Memorandum. Appendix D 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 May 2016.

2.0 SPRING 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 May 2016.

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-18, but was less than the MTCA standard. NWTPH-Gx was not detected in wells MW-06, MW-09, MW-12, MW-13, MW-17A, MW-19, MW-20, MW-21, and PORT-MW-B.

The MTCA Method A limit for benzene (5 µg/L) was exceeded in wells MW-07 and MW-18. Benzene was also detected in MW-09, MW-17A, 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 a trace level (0.08 µg/L) at PORT-MW-B, which is below the laboratory Limit of Quantitation (LOQ) of 0.20 µg/L. Benzene has not been detected above MTCA Method A clean-up levels (5 µg/L) in MW-18 for several monitoring periods, but was at 8 µg/L in this spring 2016 sampling period.

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

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

Ethylene dibromide (EDB) results were not detected for all samples. The reporting limits were raised for samples from MW-07, MW-22 and MW-22-DUP due to high levels of BTEX. More information is provided in the Data Validation Memorandum in Appendix C. The method detection limits (MDLs) for EDB for all samples were greater than the MTCA clean-up levels.

N-hexane was detected, and below the MTCA Method B level (480 µg/L) in wells MW-06, MW-07, MW-17A, MW-18, MW-22, and MW-22-DUP. The N-hexane detections at MW-06 and MW-17A were at trace levels (0.19 and 0.11 µg/L, respectively) both below the laboratory LOQ of 0.20 µg/L. N-hexane was not detected in wells MW-09, MW-12, MW-13, MW-19, MW-20, MW-21, and PORT-MW-B.

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

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-09, MW-12, MW-13, and MW-18. NWTPH-Diesel was not detected in MW-06, MW-17A, MW-19, MW-20, MW-21, and PORT-MW-B. The highest concentrations of diesel were detected in groundwater from monitoring well MW-07 at 6.5 mg/L, while all other diesel concentrations were less than 3 mg/L or not detected. NWTPH-Motor Oil was not detected (<0.20 mg/L) for all samples except for sample MW-07, which was detected below the MTCA limits at 0.30 mg/L.

3.0 DATA QUALITY ASSURANCE / VALIDATION

Data underwent a data validation review and is presented in detail in Appendix C. 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.
- Laboratory noted that the May 13, 2016 VOCs continuing calibration verification (CCV) was out of control high for naphthalene. The laboratory flagged all associated samples that had detections with a “Q” qualifier. As per the guidelines, associated samples with detections were qualified as estimated (J). Non-detections do not require qualification.
- The trip blank had a trace detection of Toluene at 0.07 J µg/L below the LOQ. The field blank FB-050416 had detections of Ethylbenzene and m,p-Xylene at 0.09 J and 0.23 J µg/L. Associated samples with detections of Toluene, Ethylbenzene, and m,p-Xylene between the Detection Limit (DL) and the Limit of Quantification were qualified as non-detect (U) at the LOQ. No action was taken for results greater than the LOQ. Refer to Appendix C for details.
- Diesel and Motor Oil results for MW-07, MW-09, MW-13, MW-18, MW-12, MW-22, and MW-22-DUP were qualified as estimated (J) due to unidentifiable hydrocarbons.
- 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 spring 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 May 2016 had only 9 results, 14 including duplicate 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 D.

The only on-site wells containing compounds with results above MTCA clean-up levels in May 2016 were MW-07 and MW-18. At MW-07, although there was a decrease in gasoline and benzene with an observed increase in the diesel concentrations compared to December 2015, all three results remained above the MTCA clean-up levels. MW-18, that was in the source leak area, had an increase in benzene levels showing change of a trending stabilization over the previous four sampling events, with the May 2016 benzene level slightly above the MTCA clean-up level with a concentration of 8.0 µg/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 well that was sampled and contained compounds with results above the MTCA clean-up levels in May 2016 was MW-22; although,

two off-site monitoring wells (MW-15 and MW-16) that had detected contaminants over MTCA clean-up levels during the RI, are not sampled for performance monitoring.

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 µg/L to <0.20 µg/L. Toluene, ethylbenzene, total xylenes, and naphthalene in MW-12 and MW-13 also showed significant decreases in concentrations. MW-09 had a significant decrease in concentrations from the December 2015 sampling and had the lowest observed levels of gasoline (non-detect), benzene (0.15 µg/L), and diesel (220 µg/L) recorded in recent history dating back to the final RI monitoring event in March 2010. Tolulene, total xylenes, and naphthalene were other analytes measured at MW-09 with non-detect results observed for the first time since monitoring began.

The wells inside of the IAS and SVE system area have significant reductions and are almost meeting performance goals. Refer to Appendix D 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. Rydecki
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/tp

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TABLES

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

Sample Location ID	Date/Time Sampled	Well Data			Water Levels		
		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	5/4/2016 6:31	51.0	41-51	2	361.38	48.75	312.63
MW-05	5/3/2016 11:30	58.0	48-58	2	364.26	54.96	309.30
MW-06	5/3/2016 8:19	60.0	50-60	2	369.68	61.41	308.27
MW-07	5/4/2016 6:54	53.5	43.5-53.5	2	358.69	49.05	309.64
MW-08A	5/4/2016 6:47	54.0	44-54	2	359.16	49.56	309.60
MW-09[b]	5/3/2016 11:37	57.0	47.5-57	2	362.13	-	-
MW-10	5/4/2016 7:18	90.0	80-90	2	360.18	50.98	309.20
MW-11	5/4/2016 6:51	57.0	42-57	2	357.53	47.76	309.77
MW-12	5/4/2016 6:57	67.0	52-67	2	364.83	55.53	309.30
MW-13	5/3/2016 15:43	65.0	50-65	2	365.42	56.3	309.12
MW-14	5/4/2016 6:17	65.0	50-65	2	363.76	54.48	309.28
MW-15	5/4/2016 11:22	65.0	50-65	2	364.67	55.08	309.59
MW-16	5/3/2016 11:15	73.7	64-74	2	377.63	68.51	309.12
MW-17A[a]	5/3/2016 10:57	95.0	80-95	2	394.00	85.21	308.79
MW-18	5/4/2016 6:41	62.0	47-62	2	360.45	51.12	309.33
MW-19	5/3/2016 13:21	58.0	43-58	2	356.61	46.81	309.80
MW-20	5/3/2016 10:40	113.1	103-113	2	416.61	107.56	309.05
MW-21	5/3/2016 9:34	109.8	95-110	2	412.85	104.40	308.45
MW-22	5/4/2016 10:12	95.0	80-95	2	393.31	83.85	309.46
MW-23	5/4/2016 11:29	57.5	42.5-57.5	2	354.94	45.22	309.72
PORT-MW-B[a]	5/4/2016 12:07	99.0	79-99	2	400.00	90.55	309.45

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
[a]	Well not surveyed, elevation estimated.
[b]	Top of pump is above water level - not measured.

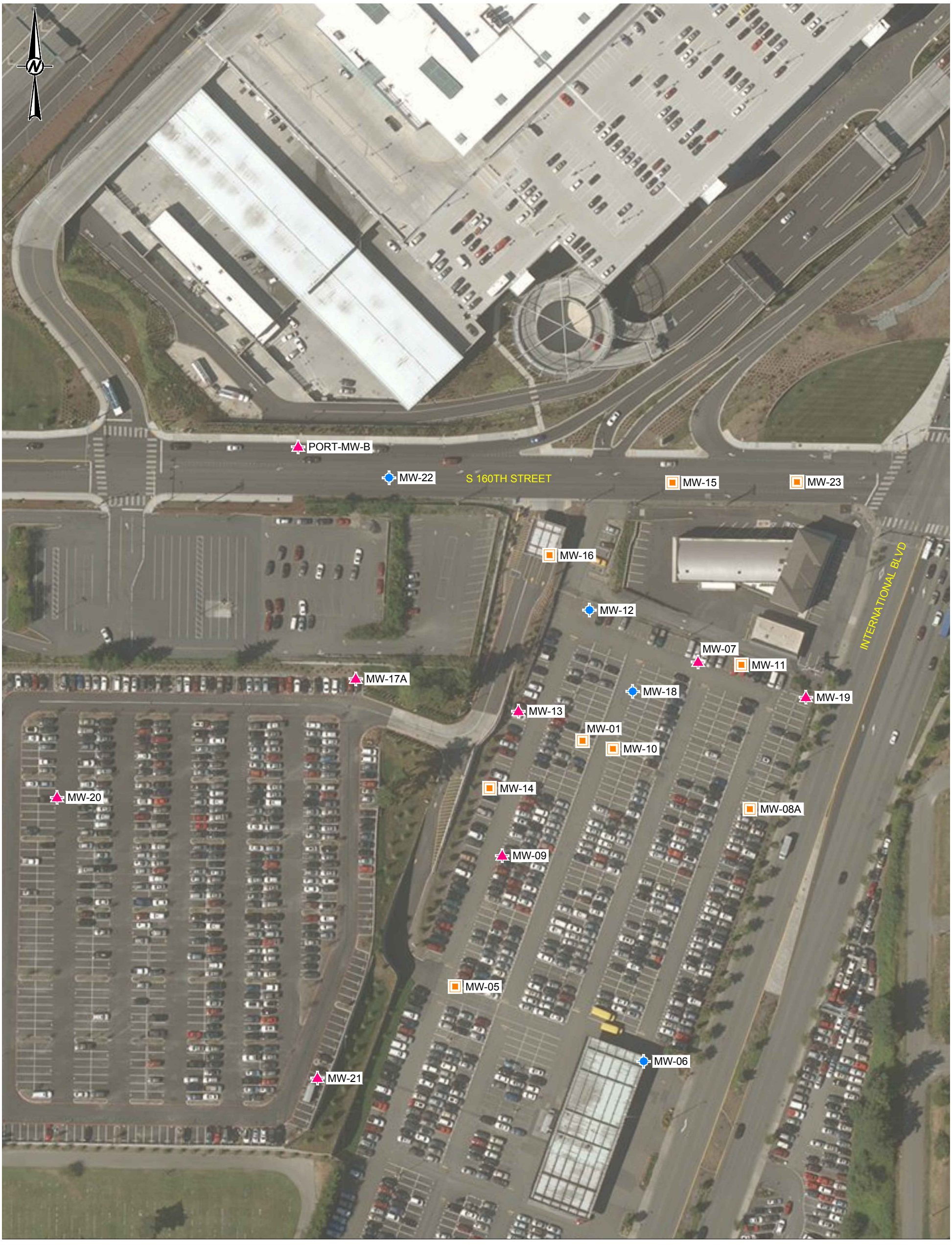
Table 2: Second Quarter 2016 Groundwater Field Parameters and Analytical Data, Sea-Tac Development Site, Seatac, Washington

Sample Location ID	Date/Time Sampled[c]	Field Parameters								Analytical Data									
		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-06b,[j,k]	5/3/2016 8:50	369.7	61.4	308.3	6.36	13.9	396	10.59	-	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	0.19 J	<0.50	<0.10	<0.20
MW-07[b]	5/4/2016 14:10	358.7	49.1	309.6	6.68	16.0	640	1.02	4.57	12	30	500	170	970	<0.20	150	68	6.5 J	0.30 J
MW-09[b,j]	5/3/2016 15:18	362.1	-	-	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
MW-12[b,m]	5/4/2016 9:05	364.8	55.5	309.3	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
MW-13[b]	5/3/2016 16:25	365.4	56.3	309.1	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
MW-17A[a,b]	5/3/2016 12:30	394.0	85.2	308.8	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
MW-18[b]	5/4/2016 8:13	360.5	51.1	309.3	7.27	14.8	513	4.53	4.77	0.22	8.0	5.5	8.2	29	<0.20	1.5	1.5	0.37 J	<0.20
MW-19[b]	5/3/2016 11:20	356.6	46.8	309.8	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
MW-20[b]	5/3/2016 14:05	416.6	107.6	309.1	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
MW-21[b]	5/3/2016 10:20	412.9	104.4	308.5	6.28	13.7	315	9.3	3.86	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.50	<0.10	<0.20
MW-22[b]	5/4/2016 10:55	393.3	83.9	309.5	6.84	13.3	294	0.39	3.61	15	3.8	5.0	780	1403	<0.20	8.6	470 J	2.8 J	<0.20
MW-22 Duplicate[b]	5/4/2016 11:00	-	-	-	-	-	-	-	-	15	3.8	5.0	830	1503	<0.20	8.4	500 J	3 J	<0.20
PORT-MW-B[a]	5/4/2016 12:50	400.0	90.6	309.5	6.72	13.2	219	2.59	7.38	<0.10	0.08 J	<0.20	0.74	0.50	<0.20	<0.20	0.83 J	<0.10	<0.20
Clean-up Level			MTCA Method A for Groundwater (unrestricted landuse)							0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
			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/SVE not in operation.	NTU	Nephelometric Turbidity Unit
c	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	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.

FIGURE



LEGEND

MW-14	MONITORING WELL - GROUNDWATER ELEVATIONS MEASURED
MW-09	MONITORING WELL - COMPLIANCE
MW-01	MONITORING WELL - NATURAL ATTENUATION

NOTES

1. MONITORING WELL LOCATIONS ARE APPROXIMATE.

REFERENCE

IMAGE COURTESY OF USGS EARTHSTAR GEOGRAPHICS

0 50 100
1" = 50' FEET

CLIENT
RIDDELL-WILLIAMS

CONSULTANT
Golder Associates

YYYY-MM-DD	2014-04-01
PREPARED	REDMOND
DESIGN	JL
REVIEW	DM
APPROVED	

PROJECT
SEATAC DEVELOPMENT SITE
MASTER PARK LOT C

TITLE
GROUNDWATER MONITORING LOCATIONS

PROJECT No.	\U+0000	Rev.	FIGURE
073-93368x06.09A		B	1

APPENDIX A
LABORATORY ANALYTICAL RESULTS

Analytical Resources, Incorporated
Analytical Chemists and Consultants

May 19, 2016

Gary Zimmerman
Golder Associates Inc.
18300 NE Union Hill Road
Suite 200
Redmond, WA 98052

Re: Project: Master Park Lot C
ARI Job Nos.: BAE2

Dear Gary:

Please find enclosed chain of custody records (COC) and the final results for the project referenced above. Analytical Resources, Inc. (ARI) accepted fourteen water samples and trip blanks in good condition on May 4, 2016.

The samples were analyzed for NWTPH-Dx VOCs and NWTPH-Gx plus BTEX, as requested on the COC. Quality control analyses are included for your review.

The May 13, 2016 VOCs CCAL is out of control high for Naphthalene. All associated samples that contain this analyte have been flagged with a "Q" qualifier.

The surrogate recovery in MB-051316A is out of control low for d8-Toluene, and Bromofluorobenzene. All other surrogate recoveries are in control, no further action was taken.

There were no other anomalies associated with these analyses.

A copy of these reports and all associated raw data will remain electronically on file at ARI. Please feel free to contact me if you have any questions or require any additional information.

Respectfully,
ANALYTICAL RESOURCES, INC.

Amanda Volgardsen
-for-
Kelly Bottem
Client Services Manager
(206) 695-6211
kellyb@arilabs.com

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: BAE2	Turn-around Requested: STANDARD	Page: 1 of 2	
ARI Client Company: GOLDER	Phone: 425-883-0777	Date: 5/4/2016	Ice Present?
Client Contact: Lee Holder, J. Lamberts, Aaron Rydecki		No. of Coolers: 1	Cooler Temps: 2.4
Client Project Name: Musterpark Lot C			
Client Project #: 073-93368-06-09A	Samplers: Rydecki/Lamberts		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: NWTPH-Gx BTEX	EDB by 8260 report to MDL	N-hexane	Naphthalene	NWTPH-Dx				Notes/Comments
Trip Blanks-050316	5/3/16	—	W	3	X	X	X	X					
MPLOTC-MW-06-050316		0850		7	X	X	X	X	X				
MPLOTC-MW-21-050316		1020		7	X	X	X	X	X				
MPLOTC-MW-20-050316		1120		7	X	X	X	X	X				
MPLOTC-MW-17A-050316		1230		21	X	X	X	X	X				MS/MSD Volume
MPLOTC-MW-19-050316		1405		7	X	X	X	X	X				
MPLOTC-MW-09-050316		1518		7	X	X	X	X	X				
MPLOTC-MW-13-050316		1625		7	X	X	X	X	X				
MPLOTC-MW-18-050416	5/4/16	0813	W	7	X	X	X	X	X				
MPLOTC-MW-12-050416		0905		7	X	X	X	X	X				

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
* Ecology EIM EDP	(Signature) Aaron Rydecki	(Signature) Justin Meyer	(Signature)	(Signature)
Pls. cc. ~~jlamberts@golder.com~~ arydecki@golder.com	Printed Name: Aaron Rydecki	Printed Name: Justin Meyer	Printed Name:	Printed Name:
Lee_holder@golder.com	Company: GOLDER	Company: ARI	Company:	Company:
- Please analyze under Reference ~~Current~~ MSA between Golder and ARI.	Date & Time: 5/4/2016 1618	Date & Time: 5/4/16 1616	Date & Time:	Date & Time:

BAE2: 050902

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: BAE2	Turn-around Requested: STANDARD	Page: 2 of 2	
ARI Client Company: Golder	Phone: 425-883-0777	Date: 5/4/2016	Ice Present?
Client Contact: Lee Holder and Aaron Rydecki		No. of Coolers: 1	Cooler Temps: 2.1
Client Project Name: Masterpark Lot C			
Client Project #: 073-9336B-06.09A	Samplers: Rydecki/Lamberts		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: NWTPH-Gx BTEX	EDB by 8260 report to MDL	N-hexane	Naphthalene	NWTPH-Dx				Notes/Comments
MPLOTC-MW-22-050416	5/4/2016	1055	W	7	X	X	X	X	X				
MPLOTC-MW-22-DUP-050416		1100		7	X	X	X	X	X				
PORT-MW-B-050416		1250		7	X	X	X	X	X				
MPLOTC-FB-050416		1340		7	X	X	X	X	X				
MPLOTC-MW-7-050416		1410		7	X	X	X	X	X				

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
*Ecology EIM EDP Pls. cc arydecki@golder.com Lee_Holder@golder.com -Please refer to the current MSA between Golder and ARI.	Printed Name: Aaron Rydecki	Printed Name: Justin Meyer	Printed Name:	Printed Name:
	Company: Golder	Company: ARI	Company:	Company:
	Date & Time: 5/4/2016 1618	Date & Time: 5-4-16 1618	Date & Time:	Date & Time:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Golder

Project Name: _____

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: BAE2

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES (NO)

Were custody papers included with the cooler? (YES) NO

Were custody papers properly filled out (ink, signed, etc.) (YES) NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 2.1 2.4 2.1 ___ ___ ___

Time: _____

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: D00276

Cooler Accepted by: JM Date: 5-4-16 Time: 1618

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES (NO)

What kind of packing material was used? ... Bubble Wrap ~~Wet Ice~~ Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA (YES) NO

Were all bottles sealed in individual plastic bags? YES (NO)

Did all bottles arrive in good condition (unbroken)? (YES) NO

Were all bottle labels complete and legible? (YES) NO

Did the number of containers listed on COC match with the number of containers received? (YES) NO

Did all bottle labels and tags agree with custody papers? (YES) NO

Were all bottles used correct for the requested analyses? (YES) NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... (NA) YES NO

Were all VOC vials free of air bubbles? NA YES (NO)

Was sufficient amount of sample sent in each bottle? (YES) NO

Date VOC Trip Blank was made at ARI NA 4/27/16

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 5-4-16 Time: 1814

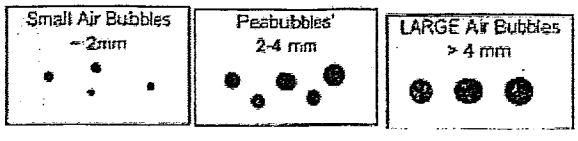
***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

peabubbles in 2 of 3 trip blanks

By: JM Date: 5-4-16



Small → "sm" (< 2 mm)
Peabubbles → "pb" (2 to < 4 mm)
Large → "lg" (4 to < 6 mm)
Headspace → "hs" (> 6 mm)

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: BAE2
Client: Golder
Project Event: 073-93368-06-09A
Project Name: Masterpark Lot C

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	Trip blanks	BAE2A	16-7017	Water	04/27/16	05/04/16 16:18
2.	MPLOTC-MW-06-05-0316	BAE2B	16-7018	Water	05/03/16 08:50	05/04/16 16:18
3.	MPLOTC-MW-21-050316	BAE2C	16-7019	Water	05/03/16 10:20	05/04/16 16:18
4.	MPLOTC-MW-20-050316	BAE2D	16-7020	Water	05/03/16 11:20	05/04/16 16:18
5.	MPLOTC-MW-19-050316	BAE2E	16-7021	Water	05/03/16 14:05	05/04/16 16:18
6.	MPLOTC-MW-09-050316	BAE2F	16-7022	Water	05/03/16 15:18	05/04/16 16:18
7.	MPLOTC-MW-13-050316	BAE2G	16-7023	Water	05/03/16 16:25	05/04/16 16:18
8.	MPLOTC-MW-18-050416	BAE2H	16-7024	Water	05/04/16 08:13	05/04/16 16:18
9.	MPLOTC-MW-12-050416	BAE2I	16-7025	Water	05/04/16 09:05	05/04/16 16:18
10.	MPLOTC-MW-22-050416	BAE2J	16-7026	Water	05/04/16 10:55	05/04/16 16:18
11.	MPLOTC-MW-22-DUP-050416	BAE2K	16-7027	Water	05/04/16 11:00	05/04/16 16:18
12.	PORT-MW-B-050416	BAE2L	16-7028	Water	05/04/16 12:50	05/04/16 16:18
13.	MPLOTC-FB-050416	BAE2M	16-7029	Water	05/04/16 13:40	05/04/16 16:18
14.	MPLOTC-MW-7-050416	BAE2N	16-7030	Water	05/04/16 14:10	05/04/16 16:18
15.	MPLOTC-MW-17A-050316	BAE2O	16-7031	Water	05/03/16 12:30	05/04/16 16:18

Data Reporting Qualifiers

Effective 12/31/13

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).
S	Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
NA	The flagged analyte was not analyzed for
NR	Spiked compound recovery is not reported due to chromatographic interference
NS	The flagged analyte was not spiked into the sample
M	Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
Y	The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
EMPC	Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**
C	The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
P	The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference
X	Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**
Z	Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A	The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
F	Samples were frozen prior to particle size determination
SM	Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
SS	Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
W	Weight of sample in some pipette aliquots was below the level required for accurate weighting

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG
Page 1 of 1

Sample ID: Trip blanks
SAMPLE

Lab Sample ID: BAE2A
LIMS ID: 16-7017
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 04/27/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 14:07

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	**Toluene**	**0.20**	**0.07**	**J**	
100-41-4	Ethylbenzene	0.20	< 0.20	U	
179601-23-1	m,p-Xylene	0.40	< 0.40	U	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	98.0%
Bromofluorobenzene	96.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-06-05-0316**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2B
LIMS ID: 16-7018
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 14:28

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	**Toluene**	**0.20**	**0.04**	**J**	
100-41-4	Ethylbenzene	0.20	< 0.20	U	
179601-23-1	m,p-Xylene	0.40	< 0.40	U	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	**Hexane**	**0.20**	**0.19**	**J**	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	99.4%
Bromofluorobenzene	98.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG
Page 1 of 1

Sample ID: MPLOTC-MW-21-050316
SAMPLE

Lab Sample ID: BAE2C
LIMS ID: 16-7019
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 14:50

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	Ethylbenzene	0.20	< 0.20	U	
179601-23-1	m,p-Xylene	0.40	< 0.40	U	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	97.2%
Bromofluorobenzene	95.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-20-050316**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2D
LIMS ID: 16-7020
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 15:11

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	Ethylbenzene	0.20	< 0.20	U	
179601-23-1	m,p-Xylene	0.40	< 0.40	U	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	97.8%
Bromofluorobenzene	95.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-19-050316**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2E
LIMS ID: 16-7021
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 15:32

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	Ethylbenzene	0.20	< 0.20	U	
179601-23-1	m,p-Xylene	0.40	< 0.40	U	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	95.8%
Bromofluorobenzene	96.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-09-050316**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2F
LIMS ID: 16-7022
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 15:54

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	**Benzene**	**0.20**	**0.15**	**J**	
108-88-3	**Toluene**	**0.20**	**0.14**	**J**	
100-41-4	**Ethylbenzene**	**0.20**	**0.71**		
179601-23-1	**m,p-Xylene**	**0.40**	**0.28**	**J**	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	97.8%
Bromofluorobenzene	95.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-13-050316**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2G
LIMS ID: 16-7023
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 16:15

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	Ethylbenzene	0.20	< 0.20	U	
179601-23-1	**m,p-Xylene**	**0.40**	**0.44**		
95-47-6	**o-Xylene**	**0.20**	**0.04**	**J**	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	96.0%
Bromofluorobenzene	94.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-18-050416**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2H
LIMS ID: 16-7024
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 16:36

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	**Benzene**	**0.20**	**8.0**		
108-88-3	**Toluene**	**0.20**	**5.5**		
100-41-4	**Ethylbenzene**	**0.20**	**8.2**		
179601-23-1	**m,p-Xylene**	**0.40**	**29**		
95-47-6	**o-Xylene**	**0.20**	**0.34**		
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	**Naphthalene**	**0.50**	**1.5**		
110-54-3	**Hexane**	**0.20**	**1.5**		
	Reported in µg/L (ppb)				
86290-81-5	**Gasoline Range Hydrocarbons**	**0.10**	**0.22**		**GAS**
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	98.2%
Bromofluorobenzene	98.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-12-050416**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2I
LIMS ID: 16-7025
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 16:58

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	Ethylbenzene	0.20	< 0.20	U	
179601-23-1	m,p-Xylene	0.40	< 0.40	U	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	96.6%
Bromofluorobenzene	92.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-22-050416**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2J
LIMS ID: 16-7026
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 17:19

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	**Benzene**	**0.20**	**3.8**		
108-88-3	**Toluene**	**0.20**	**5.0**		
100-41-4	**Ethylbenzene**	**0.20**	**300**	**E**	
179601-23-1	**m,p-Xylene**	**0.40**	**320**	**E**	
95-47-6	**o-Xylene**	**0.20**	**3.2**		
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	**Naphthalene**	**0.50**	**190**	**E**	
110-54-3	**Hexane**	**0.20**	**8.6**		
	Reported in µg/L (ppb)				
86290-81-5	**Gasoline Range Hydrocarbons**	**0.10**	**9.9**	**E**	**GAS**
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	112%
Bromofluorobenzene	108%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-22-050416**
Page 1 of 1 **DILUTION**

Lab Sample ID: BAE2J
LIMS ID: 16-7026
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/13/16 13:13

Sample Amount: 0.400 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	5.0	< 5.0	U	
108-88-3	**Toluene**	**5.0**	**5.2**		
100-41-4	**Ethylbenzene**	**5.0**	**780**		
179601-23-1	**m,p-Xylene**	**10**	**1,400**		
95-47-6	**o-Xylene**	**5.0**	**2.8**	**J**	
106-93-4	1,2-Dibromoethane	5.0	< 5.0	U	
91-20-3	**Naphthalene**	**12**	**470**	**Q**	
110-54-3	**Hexane**	**5.0**	**12**		
	Reported in µg/L (ppb)				
86290-81-5	**Gasoline Range Hydrocarbons**	**2.5**	**15**		**GAS**
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	100%
Bromofluorobenzene	97.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-22-DUP-050416**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2K
LIMS ID: 16-7027
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 17:40

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	**Benzene**	**0.20**	**3.8**		
108-88-3	**Toluene**	**0.20**	**5.0**		
100-41-4	**Ethylbenzene**	**0.20**	**290**	**E**	
179601-23-1	**m,p-Xylene**	**0.40**	**320**	**E**	
95-47-6	**o-Xylene**	**0.20**	**3.2**		
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	**Naphthalene**	**0.50**	**200**	**E**	
110-54-3	**Hexane**	**0.20**	**8.4**		
	Reported in µg/L (ppb)				
86290-81-5	**Gasoline Range Hydrocarbons**	**0.10**	**10**	**E**	**GAS**
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	110%
Bromofluorobenzene	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG
Page 1 of 1

Sample ID: MPLOTC-MW-22-DUP-050416
DILUTION

Lab Sample ID: BAE2K
LIMS ID: 16-7027
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/13/16 13:37

Sample Amount: 0.400 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	**Benzene**	**5.0**	**3.5**	**J**	
108-88-3	**Toluene**	**5.0**	**5.2**		
100-41-4	**Ethylbenzene**	**5.0**	**830**		
179601-23-1	**m,p-Xylene**	**10**	**1,500**		
95-47-6	**o-Xylene**	**5.0**	**3.2**	**J**	
106-93-4	1,2-Dibromoethane	5.0	< 5.0	U	
91-20-3	**Naphthalene**	**12**	**500**	**Q**	
110-54-3	**Hexane**	**5.0**	**12**		
	Reported in µg/L (ppb)				
86290-81-5	**Gasoline Range Hydrocarbons**	**2.5**	**15**		**GAS**
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	98.6%
Bromofluorobenzene	99.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: PORT-MW-B-050416**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2L
LIMS ID: 16-7028
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/13/16 13:59

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	**Benzene**	**0.20**	**0.08**	**J**	
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	**Ethylbenzene**	**0.20**	**0.74**		
179601-23-1	**m,p-Xylene**	**0.40**	**0.50**		
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	**Naphthalene**	**0.50**	**0.83**	**Q**	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	99.4%
Bromofluorobenzene	98.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-FB-050416**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2M
LIMS ID: 16-7029
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/13/16 14:20

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	**Ethylbenzene**	**0.20**	**0.09**	**J**	
179601-23-1	**m,p-Xylene**	**0.40**	**0.23**	**J**	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	98.6%
Bromofluorobenzene	95.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-7-050416**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2N
LIMS ID: 16-7030
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 18:44

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	**Benzene**	**0.20**	**30**		
108-88-3	**Toluene**	**0.20**	**210**	**E**	
100-41-4	**Ethylbenzene**	**0.20**	**150**	**E**	
179601-23-1	**m,p-Xylene**	**0.40**	**260**	**E**	
95-47-6	**o-Xylene**	**0.20**	**150**	**E**	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	**Naphthalene**	**0.50**	**68**		
110-54-3	**Hexane**	**0.20**	**130**	**E**	
	Reported in µg/L (ppb)				
86290-81-5	**Gasoline Range Hydrocarbons**	**0.10**	**9.2**	**E**	**GAS**
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	106%
Bromofluorobenzene	104%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-7-050416**
Page 1 of 1 **DILUTION**

Lab Sample ID: BAE2N
LIMS ID: 16-7030
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/04/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/13/16 14:44

Sample Amount: 0.400 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	**Benzene**	**5.0**	**30**		
108-88-3	**Toluene**	**5.0**	**500**		
100-41-4	**Ethylbenzene**	**5.0**	**170**		
179601-23-1	**m,p-Xylene**	**10**	**800**		
95-47-6	**o-Xylene**	**5.0**	**170**		
106-93-4	1,2-Dibromoethane	5.0	< 5.0	U	
91-20-3	**Naphthalene**	**12**	**88**	**Q**	
110-54-3	**Hexane**	**5.0**	**150**		
	Reported in µg/L (ppb)				
86290-81-5	**Gasoline Range Hydrocarbons**	**2.5**	**12**		**GAS**
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	101%
Bromofluorobenzene	100%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-17A-050316**
Page 1 of 1 **SAMPLE**

Lab Sample ID: BAE2O
LIMS ID: 16-7031
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/13/16 15:05

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	**Benzene**	**0.20**	**0.33**		
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	**Ethylbenzene**	**0.20**	**0.11**	**J**	
179601-23-1	**m,p-Xylene**	**0.40**	**0.36**	**J**	
95-47-6	**o-Xylene**	**0.20**	**0.08**	**J**	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	**Naphthalene**	**0.50**	**0.71**	**Q**	
110-54-3	**Hexane**	**0.20**	**0.11**	**J**	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	98.2%
Bromofluorobenzene	98.4%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
BAE2A	Trip blanks	10	NA	98.0%	96.0%	NA	0
MB-051116A	Method Blank	10	NA	97.4%	96.8%	NA	0
LCS-051116A	Lab Control	10	NA	102%	99.8%	NA	0
LCSD-051116A	Lab Control Dup	10	NA	102%	99.2%	NA	0
BAE2B	MPLOTC-MW-06-05-0316	10	NA	99.4%	98.0%	NA	0
LCS-051116A	Lab Control	10	NA	103%	100%	NA	0
LCSD-051116A	Lab Control Dup	10	NA	103%	101%	NA	0
BAE2C	MPLOTC-MW-21-050316	10	NA	97.2%	95.0%	NA	0
BAE2D	MPLOTC-MW-20-050316	10	NA	97.8%	95.4%	NA	0
BAE2E	MPLOTC-MW-19-050316	10	NA	95.8%	96.4%	NA	0
BAE2F	MPLOTC-MW-09-050316	10	NA	97.8%	95.2%	NA	0
BAE2G	MPLOTC-MW-13-050316	10	NA	96.0%	94.2%	NA	0
BAE2H	MPLOTC-MW-18-050416	10	NA	98.2%	98.4%	NA	0
BAE2I	MPLOTC-MW-12-050416	10	NA	96.6%	92.8%	NA	0
BAE2J	MPLOTC-MW-22-050416	10	NA	112%	108%	NA	0
BAE2JRE	MPLOTC-MW-22-050416	10	NA	100%	97.0%	NA	0
LCS-051316A	Lab Control	10	NA	102%	100%	NA	0
LCSD-051316A	Lab Control Dup	10	NA	101%	101%	NA	0
BAE2K	MPLOTC-MW-22-DUP-050416	10	NA	110%	106%	NA	0
BAE2KRE	MPLOTC-MW-22-DUP-050416	10	NA	98.6%	99.6%	NA	0
BAE2L	PORT-MW-B-050416	10	NA	99.4%	98.2%	NA	0
MB-051316A	Method Blank	10	NA	49.0%*	48.7%*	NA	2
LCS-051316A	Lab Control	10	NA	104%	101%	NA	0
LCSD-051316A	Lab Control Dup	10	NA	101%	99.0%	NA	0
BAE2M	MPLOTC-FB-050416	10	NA	98.6%	95.8%	NA	0
BAE2N	MPLOTC-MW-7-050416	10	NA	106%	104%	NA	0
BAE2NRE	MPLOTC-MW-7-050416	10	NA	101%	100%	NA	0
BAE2O	MPLOTC-MW-17A-050316	10	NA	98.2%	98.4%	NA	0
BAE2OMS	MPLOTC-MW-17A-050316	10	NA	103%	100%	NA	0
BAE2OMSD	MPLOTC-MW-17A-050316	10	NA	101%	101%	NA	0

SW8260C	LCS/MB LIMITS	QC LIMITS
(DCE) = d4-1,2-Dichloroethane	(80-129)	(80-129)
(TOL) = d8-Toluene	(80-120)	(80-120)
(BFB) = Bromofluorobenzene	(80-120)	(80-120)
(DCB) = d4-1,2-Dichlorobenzene	(80-120)	(80-120)

Prep Method: SW5030B
Log Number Range: 16-7017 to 16-7031

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-17A-050316**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: BAE20
LIMS ID: 16-7031
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst MS: NT2/LH
MSD: NT2/LH
Date Analyzed MS: 05/11/16 19:48
MSD: 05/11/16 20:10

Sample Amount MS: 10.0 mL
MSD: 10.0 mL
Purge Volume MS: 10.0 mL
MSD: 10.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Benzene	0.33	10.6	10.0	103%	10.4	10.0	101%	1.9%
Toluene	< 0.20 U	9.86	10.0	98.6%	9.77	10.0	97.7%	0.9%
Ethylbenzene	0.11 J	10.2	10.0	101%	10.1	10.0	99.9%	1.0%
m,p-Xylene	0.36 J	20.9	20.0	103%	20.8	20.0	102%	0.5%
o-Xylene	0.08 J	10.4	10.0	103%	10.3	10.0	102%	1.0%
1,2-Dibromoethane	< 0.20 U	10.1	10.0	101%	10.3	10.0	103%	2.0%
Naphthalene	0.71 Q	11.2	10.0	105%	11.4	10.0	107%	1.8%
Hexane	0.11 J	5.01	10.0	49.0%	4.64	10.0	45.3%	7.7%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MPLOTC-MW-17A-050316**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: BAE2O
LIMS ID: 16-7031
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 19:48

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q
71-43-2	Benzene	0.20	---	
108-88-3	Toluene	0.20	---	
100-41-4	Ethylbenzene	0.20	---	
179601-23-1	m,p-Xylene	0.40	---	
95-47-6	o-Xylene	0.20	---	
106-93-4	1,2-Dibromoethane	0.20	---	
91-20-3	Naphthalene	0.50	---	
110-54-3	Hexane	0.20	---	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d8-Toluene	103%
Bromofluorobenzene	100%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG

Sample ID: MPLOTC-MW-17A-050316 MATRIX SPIKE DUP

Lab Sample ID: BAE20
LIMS ID: 16-7031
Matrix: Water
Data Release Authorized:
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C 073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 20:10

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q
71-43-2	Benzene	0.20	---	
108-88-3	Toluene	0.20	---	
100-41-4	Ethylbenzene	0.20	---	
179601-23-1	m,p-Xylene	0.40	---	
95-47-6	o-Xylene	0.20	---	
106-93-4	1,2-Dibromoethane	0.20	---	
91-20-3	Naphthalene	0.50	---	
110-54-3	Hexane	0.20	---	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d8-Toluene	101%
Bromofluorobenzene	101%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: LCS-051116A**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-051116A QC Report No: BAE2-Golder
LIMS ID: 16-7018 Project: Masterpark Lot C
Matrix: Water 073-93368-06-09A
Data Release Authorized: MW Date Sampled: NA
Reported: 05/18/16 Date Received: NA

Instrument/Analyst LCS: NT2/LH Sample Amount LCS: 10.0 mL
LCSD: NT2/LH LCSD: 10.0 mL
Date Analyzed LCS: 05/11/16 12:20 Purge Volume LCS: 10.0 mL
LCSD: 05/11/16 13:03 LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzene	10.2	10.0	102%	10.7	10.0	107%	4.8%
Toluene	9.86	10.0	98.6%	10.2	10.0	102%	3.4%
Ethylbenzene	9.82	10.0	98.2%	10.4	10.0	104%	5.7%
m,p-Xylene	20.4	20.0	102%	21.4	20.0	107%	4.8%
o-Xylene	10.2	10.0	102%	10.7	10.0	107%	4.8%
1,2-Dibromoethane	10.7	10.0	107%	10.8	10.0	108%	0.9%
Naphthalene	10.6	10.0	106%	10.9	10.0	109%	2.8%
Hexane	4.51	5.00	90.2%	4.29	5.00	85.8%	5.0%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d8-Toluene	102%	102%
Bromofluorobenzene	99.8%	99.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: LCS-051116A**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-051116A
LIMS ID: 16-7019
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT2/LH
LCSD: NT2/LH
Date Analyzed LCS: 05/11/16 11:59
LCSD: 05/11/16 12:42

Sample Amount LCS: 10.0 mL
LCSD: 10.0 mL
Purge Volume LCS: 10.0 mL
LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	1.07	1.00	107%	0.95	1.00	95.0%	11.9%

Reported in mg/L (ppm)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d8-Toluene	103%	103%
Bromofluorobenzene	100%	101%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: LCS-051316A**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-051316A QC Report No: BAE2-Golder
LIMS ID: 16-7027 Project: Masterpark Lot C
Matrix: Water 073-93368-06-09A
Data Release Authorized: Date Sampled: NA
Reported: 05/18/16 Date Received: NA

Instrument/Analyst LCS: NT2/LH Sample Amount LCS: 10.0 mL
LCSD: NT2/LH LCSD: 10.0 mL
Date Analyzed LCS: 05/13/16 11:24 Purge Volume LCS: 10.0 mL
LCSD: 05/13/16 11:45 LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	0.92	1.00	92.0%	0.97	1.00	97.0%	5.3%

Reported in mg/L (ppm)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d8-Toluene	102%	101%
Bromofluorobenzene	100%	101%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG

Sample ID: LCS-051316A
LAB CONTROL SAMPLE

Lab Sample ID: LCS-051316A
LIMS ID: 16-7029
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT2/LH
LCSD: NT2/LH
Date Analyzed LCS: 05/13/16 12:06
LCSD: 05/13/16 12:27

Sample Amount LCS: 10.0 mL
LCSD: 10.0 mL
Purge Volume LCS: 10.0 mL
LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzene	10.5	10.0	105%	10.4	10.0	104%	1.0%
Toluene	10.1	10.0	101%	9.92	10.0	99.2%	1.8%
Ethylbenzene	10.2	10.0	102%	10.1	10.0	101%	1.0%
m,p-Xylene	21.2	20.0	106%	21.0	20.0	105%	0.9%
o-Xylene	10.6	10.0	106%	10.5	10.0	105%	0.9%
1,2-Dibromoethane	11.7	10.0	117%	11.7	10.0	117%	0.0%
Naphthalene	12.1 Q	10.0	121%	12.2 Q	10.0	122%	0.8%
Hexane	5.48	5.00	110%	5.29	5.00	106%	3.5%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d8-Toluene	104%	101%
Bromofluorobenzene	101%	99.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MB-051116A**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-051116A
LIMS ID: 16-7018
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT2/LH
Date Analyzed: 05/11/16 13:46

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	Ethylbenzene	0.20	< 0.20	U	
179601-23-1	m,p-Xylene	0.40	< 0.40	U	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	
	Reported in µg/L (ppb)				
86290-81-5	Gasoline Range Hydrocarbons	0.10	< 0.10	U	---
	Reported in mg/L (ppm)				

Volatile Surrogate Recovery

d8-Toluene	97.4%
Bromofluorobenzene	96.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by P&T GC/MS-Method SW8260C/NWTPHG **Sample ID: MB-051316A**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-051316A
LIMS ID: 16-7029
Matrix: Water
Data Release Authorized: MW
Reported: 05/18/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT2/LH
Date Analyzed: 05/13/16 12:49

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	LOQ	Result	Q	TPHG ID
71-43-2	Benzene	0.20	< 0.20	U	
108-88-3	Toluene	0.20	< 0.20	U	
100-41-4	Ethylbenzene	0.20	< 0.20	U	
179601-23-1	m,p-Xylene	0.40	< 0.40	U	
95-47-6	o-Xylene	0.20	< 0.20	U	
106-93-4	1,2-Dibromoethane	0.20	< 0.20	U	
91-20-3	Naphthalene	0.50	< 0.50	U	
110-54-3	Hexane	0.20	< 0.20	U	

Reported in µg/L (ppb)

86290-81-5 Gasoline Range Hydrocarbons Not RequestNot Requested ---

Reported in mg/L (ppm)

Volatile Surrogate Recovery

d8-Toluene	49.0%
Bromofluorobenzene	48.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID
Extraction Method: SW3510C

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A

Matrix: Water

Date Received: 05/04/16

Data Release Authorized: MW
Reported: 05/16/16

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DF	Range/Surrogate	RL	Result
BAE2B	MPLOTC-MW-06-05-0316	05/09/16	05/10/16	1.00	Diesel Range	0.10	< 0.10 U
16-7018	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		80.0%
BAE2C	MPLOTC-MW-21-050316	05/09/16	05/10/16	1.00	Diesel Range	0.10	< 0.10 U
16-7019	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		92.7%
BAE2D	MPLOTC-MW-20-050316	05/09/16	05/10/16	1.00	Diesel Range	0.10	< 0.10 U
16-7020	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		92.6%
BAE2E	MPLOTC-MW-19-050316	05/09/16	05/10/16	1.00	Diesel Range	0.10	< 0.10 U
16-7021	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		87.6%
BAE2F	MPLOTC-MW-09-050316	05/09/16	05/10/16	1.00	**Diesel Range**	**0.10**	**0.22**
16-7022	HC ID: **DRO**		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		87.3%
BAE2G	MPLOTC-MW-13-050316	05/09/16	05/10/16	1.00	**Diesel Range**	**0.10**	**0.12**
16-7023	HC ID: **DRO**		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		88.4%
BAE2H	MPLOTC-MW-18-050416	05/09/16	05/10/16	1.00	**Diesel Range**	**0.10**	**0.37**
16-7024	HC ID: **DRO**		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		98.2%
BAE2I	MPLOTC-MW-12-050416	05/09/16	05/10/16	1.00	**Diesel Range**	**0.10**	**0.18**
16-7025	HC ID: **DRO**		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		87.2%
BAE2J	MPLOTC-MW-22-050416	05/09/16	05/10/16	1.00	**Diesel Range**	**0.10**	**2.8**
16-7026	HC ID: **DRO**		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		100%
BAE2K	MPLOTC-MW-22-DUP-050405/09/16		05/10/16	1.00	**Diesel Range**	**0.10**	**3.0**
16-7027	HC ID: **DRO**		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		91.0%
BAE2L	PORT-MW-B-050416	05/09/16	05/10/16	1.00	Diesel Range	0.10	< 0.10 U
16-7028	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		86.5%
BAE2M	MPLOTC-FB-050416	05/09/16	05/10/16	1.00	Diesel Range	0.10	< 0.10 U
16-7029	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		99.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID
Extraction Method: SW3510C

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A

Matrix: Water

Date Received: 05/04/16

Data Release Authorized: MW
Reported: 05/16/16

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DF	Range/Surrogate	RL	Result
BAE2N	MPLOTC-MW-7-050416	05/09/16	05/10/16	1.00	**Diesel Range**	**0.10**	**7.1 E**
16-7030	HC ID: **DRO/RRO**		FID4A	1.0	**Motor Oil Range**	**0.20**	**0.30**
					o-Terphenyl		83.6%
BAE2N DL	MPLOTC-MW-7-050416	05/09/16	05/12/16	1.00	**Diesel Range**	**0.50**	**6.5**
16-7030	HC ID: **DRO**		FID4A	5.0	Motor Oil Range	1.0	< 1.0 U
					o-Terphenyl		74.6%
MB-050916	Method Blank	05/09/16	05/10/16	1.00	Diesel Range	0.10	< 0.10 U
16-7031	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		83.1%
BAE2O	MPLOTC-MW-17A-050316	05/09/16	05/10/16	1.00	Diesel Range	0.10	< 0.10 U
16-7031	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		78.5%

Reported in mg/L (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel range quantitation on total peaks in the range from C12 to C24.
Motor Oil range quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicates results of organics or additional hydrocarbons in ranges are not identifiable.

ANALYTICAL RESOURCES INCORPORATED

TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A

Client ID	OTER	TOT OUT
MPLOTC-MW-06-05-0316	80.0%	0
MPLOTC-MW-21-050316	92.7%	0
MPLOTC-MW-20-050316	92.6%	0
MPLOTC-MW-19-050316	87.6%	0
MPLOTC-MW-09-050316	87.3%	0
MPLOTC-MW-13-050316	88.4%	0
MPLOTC-MW-18-050416	98.2%	0
MPLOTC-MW-12-050416	87.2%	0
MPLOTC-MW-22-050416	100%	0
MPLOTC-MW-22-DUP-050416	91.0%	0
PORT-MW-B-050416	86.5%	0
MPLOTC-FB-050416	99.9%	0
MPLOTC-MW-7-050416	83.6%	0
MPLOTC-MW-7-050416 DL	74.6%	0
MB-050916	83.1%	0
LCS-050916	94.4%	0
LCSD-050916	82.4%	0
MPLOTC-MW-17A-050316	78.5%	0
MPLOTC-MW-17A-050316 MS	100%	0
MPLOTC-MW-17A-050316 MSD	87.8%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(50-150)	(50-150)

Prep Method: SW3510C
Log Number Range: 16-7018 to 16-7031

FORM-II TPHD

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID
Page 1 of 1

Sample ID: MPLOTC-MW-17A-050316
MS/MSD

Lab Sample ID: BAE2O
LIMS ID: 16-7031
Matrix: Water
Data Release Authorized:
Reported: 05/16/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: 05/03/16
Date Received: 05/04/16

Date Extracted MS/MSD: 05/09/16

Sample Amount MS: 500 mL
MSD: 500 mL

Date Analyzed MS: 05/11/16 00:17
MSD: 05/11/16 00:40

Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL

Instrument/Analyst MS: FID4A/JLW
MSD: FID4A/JLW

Dilution Factor MS: 1.00
MSD: 1.00

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	< 0.10 U	2.97	3.00	99.0%	2.56	3.00	85.3%	14.8%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	100%	87.8%

Results reported in mg/L
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID
Page 1 of 1

Sample ID: LCS-050916
LCS/LCSD

Lab Sample ID: LCS-050916
LIMS ID: 16-7031
Matrix: Water
Data Release Authorized: MW
Reported: 05/16/16

QC Report No: BAE2-Golder
Project: Masterpark Lot C
073-93368-06-09A
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 05/09/16

Date Analyzed LCS: 05/10/16 17:18
LCSD: 05/10/16 17:40
Instrument/Analyst LCS: FID4A/JLW
LCSD: FID4A/JLW

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.85	3.00	95.0%	2.68	3.00	89.3%	6.1%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	94.4%	82.4%

Results reported in mg/L
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water
Date Received: 05/04/16

ARI Job: BAE2
Project: Masterpark Lot C
073-93368-06-09A

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
16-7018-BAE2B	MPLOTC-MW-06-05-0316	500 mL	1.00 mL	05/09/16
16-7019-BAE2C	MPLOTC-MW-21-050316	500 mL	1.00 mL	05/09/16
16-7020-BAE2D	MPLOTC-MW-20-050316	500 mL	1.00 mL	05/09/16
16-7021-BAE2E	MPLOTC-MW-19-050316	500 mL	1.00 mL	05/09/16
16-7022-BAE2F	MPLOTC-MW-09-050316	500 mL	1.00 mL	05/09/16
16-7023-BAE2G	MPLOTC-MW-13-050316	500 mL	1.00 mL	05/09/16
16-7024-BAE2H	MPLOTC-MW-18-050416	500 mL	1.00 mL	05/09/16
16-7025-BAE2I	MPLOTC-MW-12-050416	500 mL	1.00 mL	05/09/16
16-7026-BAE2J	MPLOTC-MW-22-050416	500 mL	1.00 mL	05/09/16
16-7027-BAE2K	MPLOTC-MW-22-DUP-050	500 mL	1.00 mL	05/09/16
16-7028-BAE2L	PORT-MW-B-050416	500 mL	1.00 mL	05/09/16
16-7029-BAE2M	MPLOTC-FB-050416	500 mL	1.00 mL	05/09/16
16-7030-BAE2N	MPLOTC-MW-7-050416	500 mL	1.00 mL	05/09/16
16-7031-050916MB1	Method Blank	500 mL	1.00 mL	05/09/16
16-7031-050916LCS1	Lab Control	500 mL	1.00 mL	05/09/16
16-7031-050916LCSD1	Lab Control Dup	500 mL	1.00 mL	05/09/16
16-7031-BAE2O	MPLOTC-MW-17A-050316	500 mL	1.00 mL	05/09/16
16-7031-BAE2OMS	MPLOTC-MW-17A-050316	500 mL	1.00 mL	05/09/16
16-7031-BAE2OMSD	MPLOTC-MW-17A-050316	500 mL	1.00 mL	05/09/16

APPENDIX B
SAMPLE INTEGRITY DATA SHEETS (SIDS)

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-6-05@316

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler ~~QED Controller and Bladder Pump – Dedicated Tubing~~ Bailer (Poly-4ft)

Date 5/3/2016 **Time** 0850

Media Water **Station** MW-6

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 61.41 Free Product Thickness: none

Date & Time of Measurement: 5/3/2016 @ 0819

Measurements are in feet below top of well casing.

Sample Intake Point: 60 ft below top of well casing

Sample Description Very turbid, no odor

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot/Amount	Analysis	Container	Preservative
✓(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
✓	Naphthalene		
✓(2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/3/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-06
Date 5/3/2016
Time Begin Purge 0810 / 0827
Time Collect Sample 0850

From pH

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
61.41 (3x)	0819						
	0840	~1 gal	6.40	346	13.9	~~8.~~ 7.83	Too Turbid
	0845		6.41	345	13.9	~9.80	"
	0850	~1.75 gal	6.36	346	13.9	~10.59	"

"Out of Range" Error E3

Comments:

Nitrogen Tank: 110 psi
Throttle: 50 psi
Cycle ID: 1603(10/5) ⇒ Dialed to ID 20; CPM = 1 b/c no number;
CPM: 4
Purge Rate: NA mL/min
PID: 0.0 ppm @ TOC

0815

* Well Dry no water w/Bladder pump; Pump pulled; Bailer lowered to resattempt Bladder pump; unsuccessful;

0832 Bailing to purge continued; Will purge ~ 10 times w/ bailer

Water level fluctuation with pump cycle: NA

Sampler's Initials AMC

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-7-050416

Sampling Location At end of sample tubing MPLOTC-FB-050416 @ 1340
↳ see separate SIDS for Field Blank.

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/4/2016 **Time** 1410

Media Water **Station** MW-7

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 49.05' Free Product Thickness: N/A

Date & Time of Measurement: 5/4/2016 @ 0654

Measurements are in feet below top of well casing.

Sample Intake Point: 52 ft below top of well casing

Sample Description Clear w/ TPH odor;

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
✓ (5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
✓	Naphthalene		
✓ (2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/4/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-07
Date 5/4/2016
Time Begin Purge 1330
Time Collect Sample 1410

(From Card)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1340		6.57	619	16.2	1.07	6.63
	1345		6.61	641	16.1	0.93	7.19
	1350		6.66	643	16.1	1.00	6.44
	1355		6.67	643	16.0	1.03	9.26
	1400		6.67	642	16.0	1.03	5.10
	1405		6.68	640	16.0	1.02	4.57

Comments:

Nitrogen Tank: 110 psi
Throttle: 40 psi
Cycle ID: 50
CPM: 2
Purge Rate: ~130 mL/min
PID: 5.4 ppm @TOC

Water level fluctuation with pump cycle:

Sampler's Initials AW

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-FB-050416

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/4/2016 **Time** ~~1330~~ 1340

Media Water **Station** MW-7

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: ✓ Free Product Thickness: ✓

Date & Time of Measurement: ✓

Measurements are in feet below top of well casing.

Sample Intake Point:

Sample Description Field Blank

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
✓(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
	Naphthalene		
✓(2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/4/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MPLOTC-FB-050416
Date 5/4/2016
Time Begin Purge /
Time Collect Sample 1340

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
			N/A				
			AWC 5/4/16				

Comments:

Nitrogen Tank: / psi
Throttle: / psi
Cycle ID: /
CPM: /
Purge Rate: / mL/min
PID: / ppm

Water level fluctuation with pump cycle:

Sampler's Initials AWC

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-9- 050316

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/3/2016 **Time** 1516

Media Water **Station** MW-9

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: — Free Product Thickness:

Date & Time of Measurement: — Pump obstructing meter @ ~53.35' BTOC;

Measurements are in feet below top of well casing.

Sample Intake Point: 54 ft below top of well casing

Sample Description Clear, no odor.

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
✓(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
✓	Naphthalene		
✓(2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) Aaron Rydeen **Date** 5/3/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-09
Date 5/3/2016
Time Begin Purge 1438
Time Collect Sample 1518

(From Grnd.)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1448		6.32	260.9	18.2	7.02	2.49
	1453		6.10	229.8	17.6	5.18	1.50
	1458		*	222.8	16.1	4.94	1.60
	1503		6.67	220.7	18.2	4.84	1.19
	1508		6.50	221.2	18.2	4.79	1.27
	1513		6.51	220.9	18.3	4.68	1.08

Comments:

Nitrogen Tank: 40 psi
Throttle: 60 psi
Cycle ID: 103 (10/5)
CPM: 4
Purge Rate: ~~~140~~ ~120 mL/min
PID: 0.3 ppm @TOC

pH meter: Recalibrated due to observed inconsistency w/ measured values and stabilization;

Std.	Reading	Note:
4.01	4.02	override ✓
7.00	6.97 ✓	
10.01	9.93 ✓	
12.46	12.46*	override ✓

*Failed calibration; not accepted; Escaped not used.

Water level fluctuation with pump cycle:

Sampler's Initials AW

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-12- 050416

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/4/2016 **Time** 0905

Media Water **Station** MW-12

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 55.53' Free Product Thickness: N/A

Date & Time of Measurement: 5/4/2016 @ 0857

Measurements are in feet below top of well casing.

Sample Intake Point: 59 ft below top of well casing

Sample Description Clear, no odor,

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
✓ (5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
	Naphthalene		
✓ (2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/4/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-12
Date 5/4/2016
Time Begin Purge 0829
Time Collect Sample 0905

(from Cond)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	0840		~7.60	217.4	14.4	9.26	18.3
	0845		7.79	219.4	14.7	8.99	18.9
	0850		7.74	221.8	15.0	8.35	12.9
	0855		7.72	224.7	15.0	8.04	8.98
	0900		7.69	226.0	15.0	7.83	4.94
	0905		7.68	226.0	15.1	7.72	3.48

Comments:

New Settings:

Nitrogen Tank: 110 psi
Throttle: ~~60~~ 60 psi Increased
Cycle ID: ~~50 (20/10)~~ 103 (10 sec/5 sec)
CPM: ~~2~~ 4
Purge Rate: ~280 mL/min
PID: 0.0 ppm @ TOC

Water level fluctuation with pump cycle:

Sampler's Initials AMC/JSL

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-13- 050316

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/3/2016 **Time** 1625

Media Water **Station** MW-13

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 56.35' Free Product Thickness: N/A

Date & Time of Measurement: 5/3/2016 @ 1543

Measurements are in feet below top of well casing.

Sample Intake Point: 60 ft below top of well casing

Sample Description Clear, no odor.

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
✓ (5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
	Naphthalene		
✓ (2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/3/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-13
Date 5/3/2016
Time Begin Purge 1546
Time Collect Sample 1625

(from Land)

Water Level feet bmp	Time	Volume Purged	pH*	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1555		8.35	188.9	16.2	14.83	3.03
	1600		8.07	191.4	15.9	14.75	3.04
	1605		8.00	193.1	15.8	14.47	2.13
	1610		7.97	194.0	15.8	14.42	1.59
	1615		7.82	193.8	15.8	13.88	1.35
	1620		~~7.77~~ 7.79	193.7	15.8	14.18	1.14

Comments:

* pH meter Orion (ThermoScientific) A221 (SEA 0730) observed to have continual issues,
- pH values are likely erroneous. AMW

Nitrogen Tank: 110 psi
Throttle: 50 psi
Cycle ID: 50 (20/10)
CPM: 2
Purge Rate: ~~300~~ mL/min
PID: 0.0 ppm @ TOC

Water level fluctuation with pump cycle:

Sampler's Initials AMW

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-17A- 050316 MS/MSD

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/3/2016 **Time** 1230

Media Water **Station** MW-17A

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 85.21' Free Product Thickness: N/A

Date & Time of Measurement: 5/3/2016 @ 1057

Measurements are in feet below top of well casing.

Sample Intake Point: 90 ft below top of well casing

Sample Description Clear, trace odor (TPH).

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
15 (total) ← 3x (5) 40 mL ✓	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
	Naphthalene		
6 (total) ← 3x (2) 500 mL ✓	NWTPH-Dx	Amber Glass	none

Sampler (signature) Aaron Ryder **Date** 5/3/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-17A
Date 5/3/2016
Time Begin Purge 1148
Time Collect Sample 1230

(Temp from Cond.)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1200		6.66	141.1	13.6	8.30	17.0
	1205		6.56	139.6	13.6	7.54	15.3
	1210		6.53	136.8	13.2	6.21	12.2
	1215		6.52	134.0	13.0	5.60	11.2
	1220		6.51	132.6	13.1	4.98	9.35
	1225		6.51	131.6	13.1	4.60	8.41

Comments:

Nitrogen Tank: 110 psi
Throttle: 60 psi
Cycle ID: 50 (20/40)
CPM: 2
Purge Rate: ~280 mL/min
PID: 0.0 ppm @ TOC

Water level fluctuation with pump cycle:

Sampler's Initials AMR

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-18- 050416

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/4/2016 **Time** 0813

Media Water **Station** MW-18

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 51.12 Free Product Thickness: N/A

Date & Time of Measurement: 5/4/2016 @ 0641

Measurements are in feet below top of well casing.

Sample Intake Point: 54 ft below top of well casing

Sample Description Clear, no odor.

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
✓(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
	Naphthalene		
✓(2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/4/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-1E
Date 5/4/2016
Time Begin Purge 0733
Time Collect Sample 0813

(from Cond)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	0743		7.36	486	14.9	5.77	14.3
	0746		7.29	499	14.9	5.22	8.49
	0753		7.27	508	14.8	4.83	5.79
	0756		7.27	511	14.8	4.70	5.25
	0803		7.27	512	14.8	4.57	6.12
	0806		7.27	513	14.8	4.53	4.77

Comments:

Nitrogen Tank: 110 psi
Throttle: 40 psi
Cycle ID: 50 (20/10)
CPM: 2
Purge Rate: ~120 mL/min
PID: 0.2 ppm @ TOC

Water level fluctuation with pump cycle:

Sampler's Initials AMC/JSL

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-19- 050316

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/3/2016 **Time** 1405

Media Water **Station** MW-19

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 46.81' Free Product Thickness: N/A

Date & Time of Measurement: 5/3/2016 @ 1321

Measurements are in feet below top of well casing.

Sample Intake Point: 50 ft below top of well casing

Sample Description Clear, no odor.

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
✓ (5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
	Naphthalene		
✓ (2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/3/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-19
Date 5/3/2016
Time Begin Purge 1326
Time Collect Sample 1405

(From G.J.)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1335		~6,78	379	15.7	4.70	8.44
	1340		6.80	368	15.4	3.09	2.96
	1345		6.84	374	15.3	1.98	2.09
	1350		6.81	376	15.3	1.49	1.15
	1355		6.80	384	15.2	1.06	1.01
	1400		6.79	390	15.2	0.67	1.23

Comments:

Nitrogen Tank: 110 psi
Throttle: 50 psi
Cycle ID: 50 (20/10)
CPM: 2
Purge Rate: ~260 mL/min
PID: 0.9 ppm @TOC
variable btw ~0.4 → 1.1 ppm
averaging longer @ ~0.9 ppm

Water level fluctuation with pump cycle:

Sampler's Initials [signature]

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-20- 050316

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/3/2016 **Time** 1120

Media Water **Station** MW-20

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 107.56' Free Product Thickness: N/A

Date & Time of Measurement: 5/3/2016 @ 1040

Measurements are in feet below top of well casing.

Sample Intake Point: 111 ft below top of well casing

Sample Description Clear, no odor.

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
(5) 40 mL ✓	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
	Naphthalene		
(2) 500 mL ✓	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/3/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-20
Date 5/3/2016
Time Begin Purge 1040
Time Collect Sample 1120

F (From Card.)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1050		7.12	158.9	14.5	4.84	0.00
	1055		6.76	153.7	13.6	4.09	5.09
	1100		6.65	147.4	13.4	3.69	3.18
	1105		6.61	142.3	13.3	4.38	2.32
	1110		6.59	139.9	13.3	4.83	2.75
	1115		6.58	138.4	13.3	5.31	3.55

Comments:

Nitrogen Tank: 110 psi
Throttle: 70 psi
Cycle ID: 50 (20s/10s)
CPM: 2
Purge Rate: ~260 mL/min
PID: 0.0 ppm @TOC

Water level fluctuation with pump cycle:

Sampler's Initials AMR

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-21-050316

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/3/2016 **Time** 1020

Media Water **Station** MW-21

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 104.40' Free Product Thickness: —

Date & Time of Measurement: 5/3/2016 @ 0934

Measurements are in feet below top of well casing.

Sample Intake Point: 107 ft below top of well casing

Sample Description Clear, no odor.

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
(5) 40 mL ✓	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
	Naphthalene		
(2) 500 mL ✓	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/3/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-21
Date 5/3/2016
Time Begin Purge 0940
Time Collect Sample 1020

(conductivity from pH5)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	0950		6.34	322	14.2	10.71	35.6
	0955		6.32	316	13.9	9.83	27.9
	1000		6.32	315	13.8	9.80	14.5
	1005		6.29	314	13.8	9.25	9.36
	1010		6.29	315	13.6	9.19	6.36
	1015		6.28	315	13.7	9.30	3.86

Comments:

Nitrogen Tank: 110 psi
Throttle: 60 psi
Cycle ID: 50 (20s/10s)
CPM: 2
Purge Rate: ~100 mL/min
PID: 0.0 ppm (@ TOC)

Water level fluctuation with pump cycle:

Sampler's Initials AMR

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** MPLOTC-MW-22- 050416

Sampling Location At end of sample tubing MPLOTC-MW-22-DUP- 050416

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/4/2016 **Time** 1055 / 1100 (Dup)

Media Water **Station** MW-22

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 83.85' Free Product Thickness: N/A

Date & Time of Measurement: 5/4/2016 @ 1012

Measurements are in feet below top of well casing.

Sample Intake Point: 89 ft below top of well casing

Sample Description Clear, TPH odor

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
✓ (5 x 2) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
	Naphthalene		
✓ 2x (2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/4/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-22
Date 5/4/2016
Time Begin Purge 1014
Time Collect Sample 1055 / 1100 (DUP)

(From Cond)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1025		6.84	174.6	13.4	0.41	22.9
	1030		6.82	~~228.~~ 230.4	13.3	0.29	10.2
	1035		6.82	253.5	13.3	0.25	8.72
	1040		6.83	270.7	13.4	0.27	5.15
	1045		6.85	287.1	13.3	0.39	3.79
	1050		6.84	293.8	13.3	0.39	3.61

Comments:

Nitrogen Tank: 1100 psi
Throttle: 65 psi
Cycle ID: 5m (20/40)
CPM: 2
Purge Rate: ~300 mL/min
PID: 0.0-0.1 ppm PID@TOC

Water level fluctuation with pump cycle:

Sampler's Initials AMR / JBL

SAMPLE INTEGRITY DATA SHEET

Plant/Site Master Park Lot C **Project No.** 073-93368-06.09A

Site Location SeaTac, WA **Sample ID** PORT-MW-B- 050416

Sampling Location At end of sample tubing

Low Flow Sampling

Technical Procedure Reference(s) App E – Compliance Monitoring Plant Plan (Golder, Nov 2011)

Type of Sampler QED Controller and Bladder Pump – Dedicated Tubing

Date 5/4/2016 **Time** 1250

Media Water **Station** PORT-MW-B

Sample Type: **grab** time composite space composite

Sample Acquisition Measurements (depth, volume of static well water and purged water, etc.)

Static Water Level: 90.55' Free Product Thickness: N/A

Date & Time of Measurement: 5/4/2016 @ 1207

Measurements are in feet below top of well casing.

Sample Intake Point: 89 ft below top of well casing

Sample Description Turbid, no odor; clearing up after first ~10 minutes of purge.

Field Measurements on Sample (pH, conductivity, etc.)

See Field Parameters Sheet

Aliquot Amount	Analysis	Container	Preservative
✓(5) 40 mL	NWTPH-gasoline & BTEX	VOA vial	HCl
	EDB (ethylene dibromide)		
	N-hexane		
✓	Naphthalene		
✓(2) 500 mL	NWTPH-Dx	Amber Glass	none

Sampler (signature) [signature] **Date** 5/4/2016

Supervisor (signature) [signature] **Date** 5/5/16

FIELD PARAMETERS SHEET

Well ID MW-B
Date 5/4/2016
Time Begin Purge 1210
Time Collect Sample 1250

(from Cond.)

Water Level feet bmp	Time	Volume Purged	pH	Conductivity (uS/cm)	Temp. (°C)	DO (mg/L)	Turbidity (NTU)
	1220		6.70	215.5	13.2	3.51	123
	1225		6.70	215.1	13.2	3.18	57.7
	1230		6.71	216.6	13.1	2.93	22.3
	1235		6.71	217.4	13.2	2.76	13.0
	1240		6.70	218.7	13.1	2.66	8.11
	1245		6.72	219.0	13.2	2.59	7.38

Comments:

Nitrogen Tank: 110 psi
Throttle: 70 psi
Cycle ID: 5s(20/10)
CPM: 2
Purge Rate: ~260 mL/min
PID: 0.0 ppm @TOC

Water level fluctuation with pump cycle:

Sampler's Initials KMZ/JSL

APPENDIX C
DATA VALIDATION MEMORANDUM

Data Usability Summary Report
Masterpark Lot C – Groundwater Monitoring
SeaTac, Washington

This Data Usability Summary Report (DUSR) presents the findings of the data quality assessment performed on the analyses of groundwater samples collected May 3 and May 4, 2016 at the Masterpark Lot C/SeaTac Development Site located in SeaTac, Washington (Site) as part of the 2016 Spring Semi-Annual Sampling. Samples in the laboratory sample delivery groups (SDGs) as indicated in Table 1 were reviewed in this DUSR to identify quality issues which could affect the use of the sample data for decision making purposes.

The samples were submitted to Analytical Resources, Incorporated of Tukwila, Washington to perform the requested analyses. Information regarding the sample point identifications, analytical parameters, quality control (QC) samples, sampling dates, and laboratory SDG designations are summarized in Table 1. Samples were analyzed utilizing one or more of the following method guidelines:

- Gasoline Hydrocarbons following the Northwest Total Petroleum Hydrocarbon (NWTPH-Gx). Washington State Department of Ecology ECY 97-602, June 1997.
- Diesel and/or Oil Hydrocarbons following the Northwest Total Petroleum Hydrocarbon (NWTPH-Dx). Washington State Department of Ecology ECY 97-602, June 1997.
- Volatile Organic Compounds by Purge and Trap and Gas Chromatography and Mass Spectrometry. EPA Method SW8260C, August 2006.

In addition to the twelve (12) submitted primary samples, one (1) submitted trip blank, one (1) submitted field blank, and one (1) submitted field duplicate sample was collected and analyzed for Quality Control (QC) purposes.

The data quality assessment of was performed in accordance with the Compliance Monitoring Plan (CMP)[1] and USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Data Review[2]. Where there was a discrepancy between the QC criteria in the Guidelines and the QC criterion established in the analytic methodology, method-specific criteria, the QAPP, or professional judgment was used.

In general, chemical results for the samples collected at the Site were evaluated on the basis of laboratory preservation, hold times, blank contamination, instrument calibration performance, outlying precision or accuracy parameters, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data during the data validation process.

[1] Golder. 2011. Compliance Monitoring Plan, Sea-Tac Development Site, SeaTac, Washington. November 2.

[2] Environmental Protection Agency (EPA). 2014. National Functional Guidelines for Organic Superfund Data Review. OSWER 9355.0-132, EPA-540-R-014-002. August.

J+	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.
J-	The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased low.
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.
U	The constituent was analyzed for, but was not detected above the reported sample quantitation limit.
UJ	The constituent was not detected; the associated quantitation limit is an estimated value because quality control criteria were not met.
R	Data are rejected due to significant exceedance of quality control criteria. The analyte may or may not be present. Additional sampling and analysis may be required to determine the presence or absence of the constituent.
UR	The constituent is rejected at the reported quantitation limit.
DNR	Do Not Report. More than one set of results are reported due to re-analyses or re-reporting (below reporting level). This result should not be reported.

The validation level for the data is Tier 2A, and included the following:

- Data Package Completeness
- Verification of required deliverables
- Evaluation of holding times and preservations
- Laboratory narrative evaluation
- Evaluation and qualification of QC elements for: Surrogates, Matrix Spike, Laboratory Control samples, Laboratory Duplicates, Method Blanks, and Field Blank and Field Duplicate evaluation as applicable
- Evaluation of detection limits

Raw data was not provided and calibration elements including gas chromatograph (GC) instrument tuning and performance check, initial and continuing calibration, internal standard performance, and compound identification were not evaluated unless information was provided by the lab in the case narratives. Data review and validation was performed by an experienced quality assurance chemist independent of the analytical laboratory and not directly involved in the project. Data qualifiers that were applied by the laboratory have been removed from the data summary report sheets, when applicable, and superseded by data validation qualifiers (Table 2).

Overall, the data review showed that data are acceptable for use except if indicated by data qualifiers. In general, the data generated as part of the sampling event met the QC criteria established in the respective methods and the Guidelines. The following bulleted items highlight qualifications to specific parameters

and/or samples. Table 2 summarizes all qualifications applied to the data, with applicable qualifier codes. Refer to Data Evaluation Checklists in Attachment A for details of the data validation.

- Laboratory noted that the May 13, 2016 VOCs CCV was out of control high for naphthalene. The laboratory flagged all associated samples that had detections with a "Q" qualifier. As per the guidelines, associated samples with detections must be qualified as estimated (J). Non-detections do not require qualification.
- The trip blank had a detection of Toluene at 0.07 J µg/L. The field blank MPLOTC-FB-050416 had detections of Ethylbenzene and m,p-Xylene at 0.09 J and 0.23 J µg/L. Associated samples with detections of Toluene, Ethylbenzene, and m,p-Xylene between the Detection Limit (DL) and the Limit of Quantification (LOQ) were qualified as non-detect (U) at the LOQ. No action was taken for results greater than the LOQ.
- Diesel and Motor Oil results for MPLOTC-MW-9-050316, MPLOTC-MW-13-050316, MPLOTC-MW-18-050416, MPLOTC-MW-12-050416, MPLOTC-MW-22-050416, MPLOTC-MW-22-DUP-050416, and MPLOTC-MW-7-050416 were qualified as either "DRO" or "DRO/RRO" by the lab, which indicates results of organics or additional hydrocarbons in ranges that are not identifiable. Diesel and Motor Oil results are qualified as estimated (J) for these samples.

Dilutions do not require qualifications based on USEPA guidelines. Detection and reporting limits of non-detect compounds are elevated proportional to the dilution when undiluted sample results are not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization. Diluted results were only reported when the analyte value exceeded the instrument calibration range.

Based on the data validations and data quality assessment, the analytical data for samples collected at the Site were determined to be acceptable (including estimated data) for their intended use. The data completeness (i.e. the ratio of the amount of valid data obtained to the amount expected, including estimated (/J/U/DNR) data) was 100%.

TABLES

Table 1 Sample Collection and Analysis Summary

Table 2 Qualifier Summary Table

ATTACHMENTS

Attachment A Data Review Checklists – QA Level 2A

TABLES

Sample Collection and Analysis Summary
Masterpark Lot C - Groundwater Monitoring - May 2016

							Analyses				
SDG	Field Identification	Collection Date	Location	Lab Identification	Matrix	QC Samples	8260C (Project List)	NWTPH-Gx	NWTPH-Dx		
BAE2	Trip Blanks-050316	5/3/2016	Trip Blank	BAE2A	Water	TB	X	X			
BAE2	MPLOTC-MW-06-050316	5/3/2016	MPLOTC-MW-06	BAE2B	Water		X	X	X		
BAE2	MPLOTC-MW-21-050316	5/3/2016	MPLOTC-MW-21	BAE2C	Water		X	X	X		
BAE2	MPLOTC-MW-20-050316	5/3/2016	MPLOTC-MW-20	BAE2D	Water		X	X	X		
BAE2	MPLOTC-MW-19-050316	5/3/2016	MPLOTC-MW-19	BAE2E	Water		X	X	X		
BAE2	MPLOTC-MW-09-050316	5/3/2016	MPLOTC-MW-09	BAE2F	Water		X	X	X		
BAE2	MPLOTC-MW-13-050316	5/3/2016	MPLOTC-MW-13	BAE2G	Water		X	X	X		
BAE2	MPLOTC-MW-18-050416	5/4/2016	MPLOTC-MW-18	BAE2H	Water		X	X	X		
BAE2	MPLOTC-MW-12-050416	5/4/2016	MPLOTC-MW-12	BAE2I	Water		X	X	X		
BAE2	MPLOTC-MW-22-050416	5/4/2016	MPLOTC-MW-22	BAE2J	Water		X	X	X		
BAE2	MPLOTC-MW-22-DUP-050416	5/4/2016	MPLOTC-MW-22-DUP	BAE2K	Water	FD	X	X	X		
BAE2	PORT-MW-B-050416	5/4/2016	PORT-MW-B	BAE2L	Water		X	X	X		
BAE2	MPLOTC-FB-050416	5/4/2016	MPLOTC-FB	BAE2M	Water	FB	X	X	X		
BAE2	MPLOTC-MW-7-050416	5/4/2016	MPLOTC-MW-7	BAE2N	Water		X	X	X		
BAE2	MPLOTC-MW-17A-050316	5/3/2016	MPLOTC-MW-17A	BAE2O	Water	MS/MSD	X	X	X		

Notes:
All analyses performed by Analytical Resources Laboratories

Abbreviations:
FB - Field Blank
FD - Field Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
QC - Quality Control
SDG - Sample Delviery Group
TB - Trip Blank

Qualifier Summary Table
Masterpark Lot C - Groundwater Monitoring - May 2016

SDG	Sample Name	Constituent	New Result	New LOQ	Qualifier	Reason
BAE2	MPLOTC-MW-06-050316	Toluene	<0.20	0.20	U	Trip blank contamination
BAE2	MPLOTC-MW-09-050316	Toluene	<0.20	0.20	U	Trip blank contamination
BAE2	MPLOTC-MW-09-050316	m,p-Xylene	<0.40	0.40	U	Field blank contamination
BAE2	MPLOTC-MW-09-050316	Diesel	-	-	J	Results of organics or additional hydrocarbons in ranges are not identifiable
BAE2	MPLOTC-MW-13-050316	Diesel	-	-	J	Results of organics or additional hydrocarbons in ranges are not identifiable
BAE2	MPLOTC-MW-18-050416	Diesel	-	-	J	Results of organics or additional hydrocarbons in ranges are not identifiable
BAE2	MPLOTC-MW-12-050416	Diesel	-	-	J	Results of organics or additional hydrocarbons in ranges are not identifiable
BAE2	MPLOTC-MW-22-050416	Diesel	-	-	J	Results of organics or additional hydrocarbons in ranges are not identifiable
BAE2	MPLOTC-MW-22-050416	Naphthalene	-	-	J	Lab CCV was out of control high for this analyte
BAE2	MPLOTC-MW-22-DUP-050416	Diesel	-	-	J	Results of organics or additional hydrocarbons in ranges are not identifiable
BAE2	MPLOTC-MW-22-DUP-050416	Naphthalene	-	-	J	Lab CCV was out of control high for this analyte
BAE2	MPLOTC-MW-B-050416	Naphthalene	-	-	J	Lab CCV was out of control high for this analyte
BAE2	MPLOTC-MW-7-050416	Motor Oil	-	-	J	Results of organics or additional hydrocarbons in ranges are not identifiable
BAE2	MPLOTC-MW-7-050416	Diesel	-	-	J	Results of organics or additional hydrocarbons in ranges are not identifiable
BAE2	MPLOTC-MW-17A-050316	Ethylbenzene m,p-Xylene	<0.20 <0.40	0.20 0.40	U U	Field blank contamination
BAE2	MPLOTC-MW-17A-050316	Naphthalene	-	-	J	Lab CCV was out of control high for this analyte

Abbreviations
CCV - Continuing Calibration Verification
LOQ - Limit of Quantification
SDG - Sample Delivery Group

Qualifier Definitions
J - Estimated result
J+ - Estimated result with high bias
U - Non-detect result at RL shown

ATTACHMENT A

DATA REVIEW CHECKLISTS – QA LEVEL 2A

DATA REVIEW CHECKLIST - QA LEVEL II

Reviewing Company: Golder Associates
Project Manager: Lee Holder
Project Name: Masterpark Lot C
Project Number: 073-93368-06.09A
Reviewer: Jason Yabandeh
Validation Date: June 24, 2016
Reviewed by: Jill Lamberts
Review Date: 6/29/2016
Laboratory: Analytical Resources Inc. – Tukwila, WA
SDG #: BAE2
Analytical Method (type and no.): EPA 8260C (Gasoline, BTEX, EDB, n-Hexane, Naphthalene) and NWTPH-Dx (Diesel and Motor Oil)
Matrix: ☐ Air ☐ Soil/Sed. ☒ Water ☐ Waste ☐ Other

Work Plan or QAPP reference: Golder. 2011. Compliance Monitoring Plan, Sea-Tac Development Site, SeaTac, Washington. November 2.

Applicable Data Validation Guidance: EPA 2014. National Functional Guidelines for Superfund Organic Methods Data Review. OSWER 9355.0-132, EPA-540-R-014-002. August

Sample Information: See Table 1 (attached)

Field/COC Information	**YES**	**NO**	**NA**	**COMMENTS**
a) Sampling dates noted?	☒	☐	☐	
b) Sampling team indicated?	☒	☐	☐	
c) Sample location noted?	☒	☐	☐	
d) Sample type indicated (grab/composite)?	☒	☐	☐	
e) Field QC noted?	☒	☐	☐	
f) Field parameters collected (note types)?	☒	☐	☐	pH, Conductivity, Temp., Turbidity, DO
g) Was the COC signed by both field and laboratory personnel?	☒	☐	☐	
h) Were samples received in good condition?	☒	☐	☐	
i) Were the correct preservatives used?	☒	☐	☐	
j) Was the sample cooler temperature within QC limits?	☒	☐	☐	2.1, 2.4, and 2.1°C
Laboratory Case Narrative				
a) Does the laboratory narrative indicate deficiencies?	☒	☐	☐	See notes 1 and 2

Note Deficiencies:

These issues are addressed in the appropriate sections below.

General (reference QAPP or Method)	**YES**	**NO**	**NA**	**COMMENTS**
a) Was the correct method used?	☒	☐	☐	
b) Were hold times met for sample pretreatment?	☒	☐	☐	See attached hold times sheet
c) Were hold times met for sample analysis?	☒	☐	☐	
d) Were appropriate reporting limits achieved?	☒	☐	☐	
e) Were any sample dilutions noted?	☒	☐	☐	See note 3
f) Were any matrix problems noted?	☐	☒	☐	

DATA REVIEW CHECKLIST - QA LEVEL II

Blanks	**YES**	**NO**	**NA**	**COMMENTS**
a) Were analytes detected in the method blank(s)?	☐	☒	☐	See attached blanks summary sheet
b) Were analytes detected in the field blank(s)?	☒	☐	☐	See note 4
c) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
d) Were analytes detected in the trip blank(s)?	☒	☐	☐	See note 4
e) Were analytes detected in the storage blank(s)?	☐	☐	☒	
Surrogate (System Monitoring) Compounds	**YES**	**NO**	**NA**	**COMMENTS**
a) Were surrogate compounds added to all samples?	☒	☐	☐	
b) Were recoveries within control limits?	☐	☒	☐	See note 2
c) Were surrogate recoveries not calculated due to dilutions?	☐	☒	☐	
d) Were recoveries not calculated due to interference?	☐	☒	☐	
Laboratory Control Sample	**YES**	**NO**	**NA**	**COMMENTS**
a) Was a LCS analyzed at the appropriate frequency?	☒	☐	☐	
b) Were the proper compounds included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☒	☐	☐	
Matrix Spike/Matrix Spike Duplicate	**YES**	**NO**	**NA**	**COMMENTS**
d) Was MS accuracy criteria met?	☒	☐	☐	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☒	☐	
e) Was MSD accuracy criteria met?	☒	☐	☐	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☒	☐	
f) Were MS/MSD precision criteria met?	☒	☐	☐	
Duplicates	**YES**	**NO**	**NA**	**COMMENTS**
a) Were field duplicates collected (note original and duplicate sample names)?	☒	☐	☐	See attached field duplicate sheet
b) Were field dup. precision criteria met (Note RPD)?	☐	☐	☐	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☒	☐	Lab performed LCSD
d) Were lab dup. precision criteria met (Note RPD)?	☐	☐	☒	
ICP Serial Dilution (SD)	**YES**	**NO**	**NA**	**COMMENTS**
a) Was an ICP SD analyzed once per SDG?	☐	☐	☒	
b) Was the ICP SD criteria met?	☐	☐	☒	
Overall Evaluation	**YES**	**NO**	**NA**	**COMMENTS**
a) Were there any other technical problems not previously addressed?	☒	☐	☐	See note 5

DATA REVIEW CHECKLIST - QA LEVEL II

b)	Checked for transcription errors?	☒	☐	☐	See note 6
c)	Do target analytes fall within calibration ranges?	☒	☐	☐	See note 3
d)	Data are acceptable and usable except as noted?	☒	☐	☐	

Comments/Notes:

1. Laboratory noted that the May 13, 2016 VOCs CCV was out of control high for naphthalene. The laboratory flagged all associated samples that had detections with a "Q" qualifier. As per the guidelines, associated samples with detections must be qualified as estimated (J). Non-detections do not require qualification.
2. Lab noted that the surrogate recovery in MB-051316A was out of control low for d8-Toluene and Bromofluorobenzene. As all other surrogate recoveries were in control, this is to be considered an isolated incident and no qualification is required.
3. The following samples were run both undiluted and diluted due to high analyte concentration: MPLOTC-MW-22-050416, MPLOTC-MW-22-DUP-050416, and MPLOTC-MW-7-050416. Diluted results were reported for analytes that exceeded the instrument calibration range (flagged E by lab) in the undiluted analysis. All other analytes were reported from the undiluted analysis.
4. The trip blank had a detection of Toluene at 0.07 J µg/L. The field blank MPLOTC-FB-050416 had detections of Ethylbenzene and m,p-Xylene at 0.09 J and 0.23 J µg/L. Associated samples with detections of Toluene, Ethylbenzene, and m,p-Xylene between the Detection Limit (DL) and the Limit of Quantification (LOQ) were qualified as non-detect (U) at the LOQ. No action was taken for results greater than the LOQ.
5. Diesel and Motor Oil results for MPLOTC-MW-9-050316, MPLOTC-MW-13-050316, MPLOTC-MW-18-050416, MPLOTC-MW-12-050416, MPLOTC-MW-22-050416, MPLOTC-MW-22-DUP-050416, and MPLOTC-MW-7-050416 were qualified as either "DRO" or "DRO/RRO" by the lab, which indicates results of organics or additional hydrocarbons in ranges that are not identifiable. Diesel and Motor Oil results are qualified as estimated (J) for these samples.
6. Two transcription errors were found: 1) The trip blanks were logged in with an incorrect sample date, and 2) Sample MPLOTC-MW-06-050316 was logged in as MPLOTC-MW-06-05-0316. Both are minor errors that do not impact overall data quality. No further action was taken.

Data Qualification: See Table 2.

Definitions:

SDG: Sample Delivery Group	QC: Quality Control
COC: Chain of Custody	QAPP: Quality Assurance Project Plan
VOC: Volatile Organic Compound	SVOC: Semivolatile Organic Compound
TCL: Target Compound List	PCB: Polychlorinated Biphenyl
%D: Percent Difference	RPD: Relative Percent Difference
LCS: Laboratory Control Sample	RSD: Relative Standard Deviation
MS/MSD: Matrix Spike/Matrix Spike Duplicate	CRDL: Contract Required Quantitation Limit
MDL: Method Detection Limit	RL: Reporting Limit
%R: Percent Recovery	PEM: Performance Evaluation Mixture
CC: Continuing Calibration	SPCC: System Performance Check Compound
RRF: Relative Response Factor	RT: Retention Time
TCLP: Toxicity Characteristic Leaching Procedure	LOQ: Limit of Quantitation

APPENDIX D
DATA TABLES AND TREND GRAPHS

DATA TABLES

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

	Field Parameters								Analytical Data									
Date 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)**
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	10.59	-	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20	0.19 J	<0.50	<0.10	<0.20
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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
feet bmp — Feet below measuring point
feet msl — Feet above mean sea level
[a] Well not surveyed, elevation estimated.
[b] IAS/SVE not in operation.
[c] Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.
[d] When benzene is present.
[e] When benzene is not present.
[f] Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.
[g] Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs
[h] Value is more protective than Federal MCLs.
[i] MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.

- Not measured or not available
Result exceeds Clean-up Level (CUL)
mg/L — Milligrams 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 value reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.

Golder Associates

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

	Field Parameters								Analytical Data									
Date 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)**
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	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	6.5 J	0.30 J
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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
feet bmp — Feet below measuring point
feet msl — Feet above mean sea level
[a] Well not surveyed, elevation estimated.
[b] IAS/SVE not in operation.
[c] Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.
[d] When benzene is present.
[e] When benzene is not present.
[f] Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.
[g] Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs
[h] Value is more protective than Federal MCLs.
[i] MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.

\- Not measured or not available
Result exceeds Clean-up Level (CUL)
mg/L — Milligrams 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.
B — 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.

Golder Associates

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

	Field Parameters								Analytical Data									
Date 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)**
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	< 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	111.6	< 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	1.5 J+	73	1.45 J+	< 0.07	< 0.20	6	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
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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
feet bmp — Feet below measuring point
feet msl — Feet above mean sea level
[a] Well not surveyed, elevation estimated.
[b] IAS/SVE not in operation.
[c] Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.
[d] When benzene is present.
[e] When benzene is not present.
[f] Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.
[g] Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs
[h] Value is more protective than Federal MCLs.
[i] MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.
* Reported at the Limit of Quantitation (LOQ). The LOQ is less than MTCA CULs.

\- Not measured or not available
Result exceeds Clean-up Level (CUL)
mg/L — Milligrams 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.
J+ — The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.
B — 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.

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

	Field Parameters								Analytical Data									
Date 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)**
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	2.4	< 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
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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
feet bmp — Feet below measuring point
feet msl — Feet above mean sea level
[a] Well not surveyed, elevation estimated.
[b] IAS/SVE not in operation.
[c] Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.
[d] When benzene is present.
[e] When benzene is not present.
[f] Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.
[g] Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs
[h] Value is more protective than Federal MCLs.
[i] MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.
* Reported at the Limit of Quantitation (LOQ). The LOQ is less than MTCA CULs.

\- Not measured or not available
Result exceeds Clean-up Level (CUL)
mg/L — Milligrams 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.
J+ — The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.
B — 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.

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

	Field Parameters								Analytical Data									
Date 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)**
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	3.90	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	0.4	<0.20	<0.20	<0.50	0.12 J	<0.20
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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/SVE not in operation.	NTU	Nephelometric Turbidity Unit
c	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.

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

	Field Parameters								Analytical Data									
Date 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)**
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	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	8.4	<0.10	0.33	<0.20	<0.20	<0.40	<0.20	0.11 J	0.71 J	<0.10	<0.20
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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
feet bmp	Feet below measuring point
feet msl	Feet above mean sea level
a	Well not surveyed, elevation estimated.
b	IAS/SVE not in operation.
c	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.
d	When benzene is present.
e	When benzene is not present.
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs
h	Value is more protective than Federal MCLs.
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.

-	Not measured or not available
	Result exceeds Clean-up Level (CUL)
mg/L	Milligrams 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 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.

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

	Field Parameters								Analytical Data									
Date 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)**
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	4.80	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	4.8	0.22	8.0	5.5	8.2	29.3	<0.20	1.5	1.5	0.37 J	<0.20
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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
feet bmp Feet below measuring point
feet msl Feet above mean sea level
[a] Well not surveyed, elevation estimated.
[b] IAS/SVE not in operation.
[c] Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.
[d] When benzene is present.
[e] When benzene is not present.
[f] Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.
[g] Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs
[h] Value is more protective than Federal MCLs.
[i] MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.
* Reported at the Limit of Quantitation (LOQ). The LOQ is less than MTCA CULs.

\- Not measured or not available
Result exceeds Clean-up Level (CUL)
mg/L Milligrams 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.
J+ The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.

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

	Field Parameters								Analytical Data								
Date 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)**
18-Mar-10	356.61	46.60	310.01	7.04	12.5	275	0.07	84.0	1.3	8.90	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
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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/SVE not in operation.	NTU	Nephelometric Turbidity Unit
c	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

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

	Field Parameters								Analytical Data									
Date 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)**
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
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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/SVE not in operation.	NTU	Nephelometric Turbidity Unit
c	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

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

	Field Parameters								Analytical Data									
Date 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)**
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
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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/SVE not in operation.	NTU	Nephelometric Turbidity Unit
c	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

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

	Field Parameters								Analytical Data									
Date 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)**
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	310.00	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	240.00	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 J	2.8 J	<0.20
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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
feet bmp	Feet below measuring point
feet msl	Feet above mean sea level
a	Well not surveyed, elevation estimated.
b	IAS/SVE not in operation.
c	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.
d	When benzene is present.
e	When benzene is not present.
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs
h	Value is more protective than Federal MCLs.
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.

-	Not measured or not available
	Result exceeds Clean-up Level (CUL)
mg/L	Milligrams 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.
B	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.

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

	Field Parameters								Analytical Data									
Date 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)**
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	--[j]	< 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	7.38	<0.10	0.08 J	<0.20	0.74	0.50	<0.20	<0.20	0.83 J	<0.10	<0.20
Clean-up Level	MTCA Method A for Groundwater (unrestricted landuse)								0.8[d]/1.0[e]	5[g]	1000[g]	700[g]	1000[h]	0.01[h]	NSA	160	0.5	0.5
	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
feet bmp	Feet below measuring point
feet msl	Feet above mean sea level
a	Well not surveyed, elevation estimated.
b	IAS/SVE not in operation.
c	Water levels collected at various times prior to sampling (see Table 1). Date/time is sampling time.
d	When benzene is present.
e	When benzene is not present.
f	Reported at Method Detection Limit (MDL). The MDL is greater than the MTCA CULs.
g	Inclusive of 40 CFR 141.61 Federal Law for drinking water MCLs
h	Value is more protective than Federal MCLs.
i	MTCA 173-340-705(5): Adjustments to cleanup levels based on applicable laws.
j	Turbidity out of range. Well was purged using a bailer.

-	Not measured or not available
	Result exceeds Clean-up Level (CUL)
mg/L	Milligrams 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 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.

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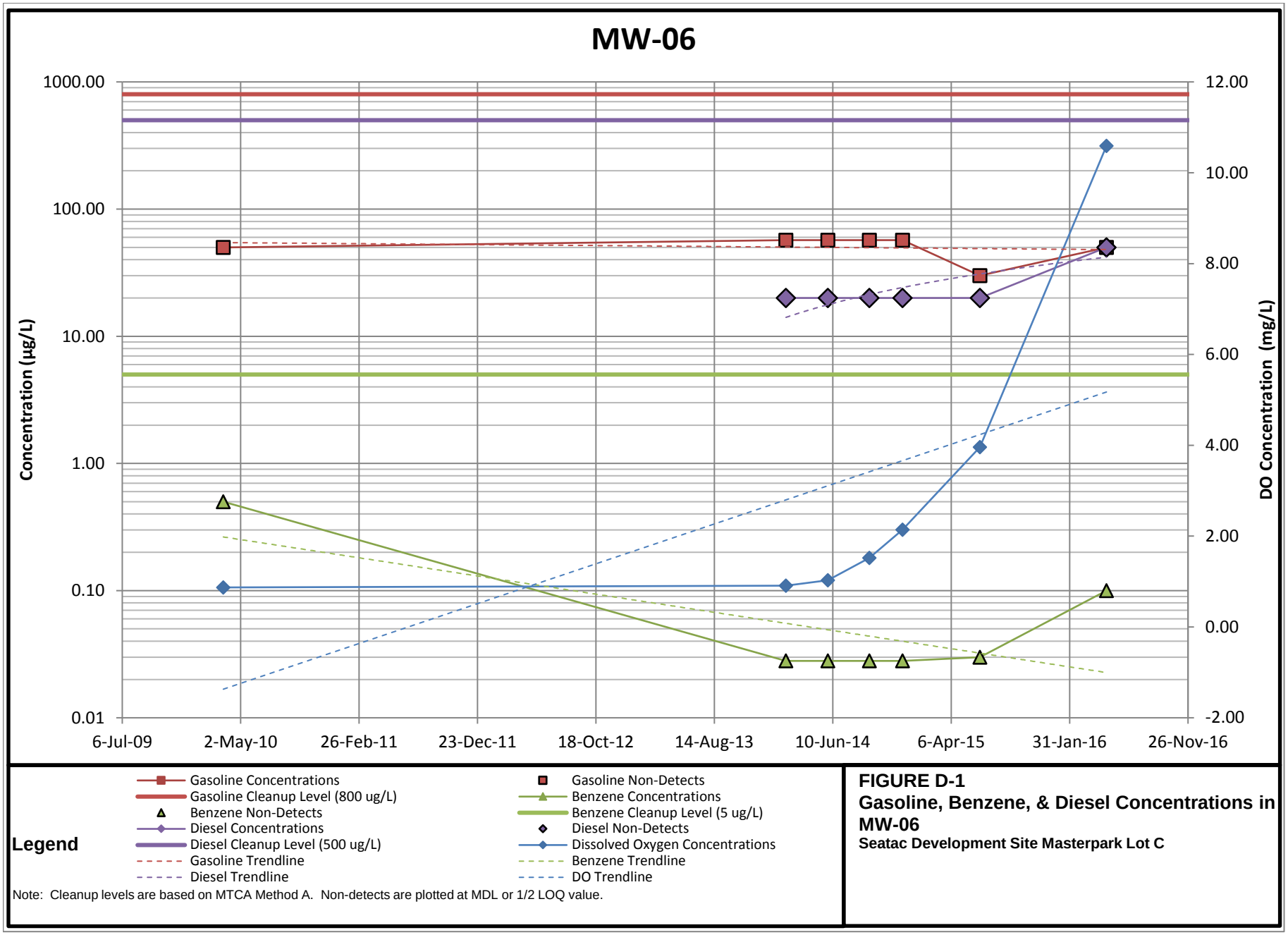

FIGURE D-1
Gasoline, Benzene, & Diesel Concentrations in MW-06
Seatac Development Site Masterpark Lot C

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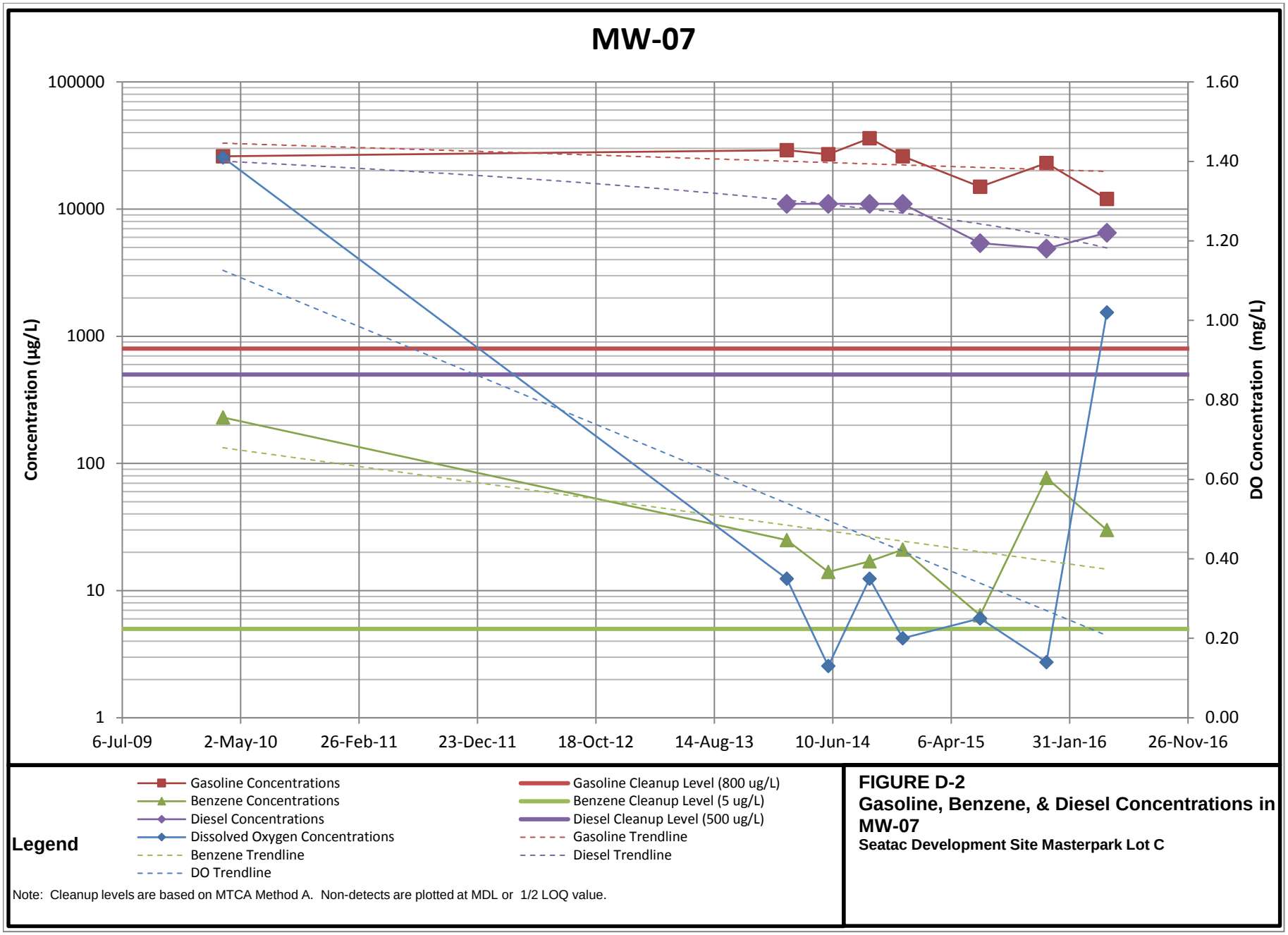

Note: Cleanup levels are based on MTCA Method A. Non-detects are plotted at MDL or 1/2 LOQ value.

FIGURE D-2
Gasoline, Benzene, & Diesel Concentrations in MW-07
Seatac Development Site Masterpark Lot C

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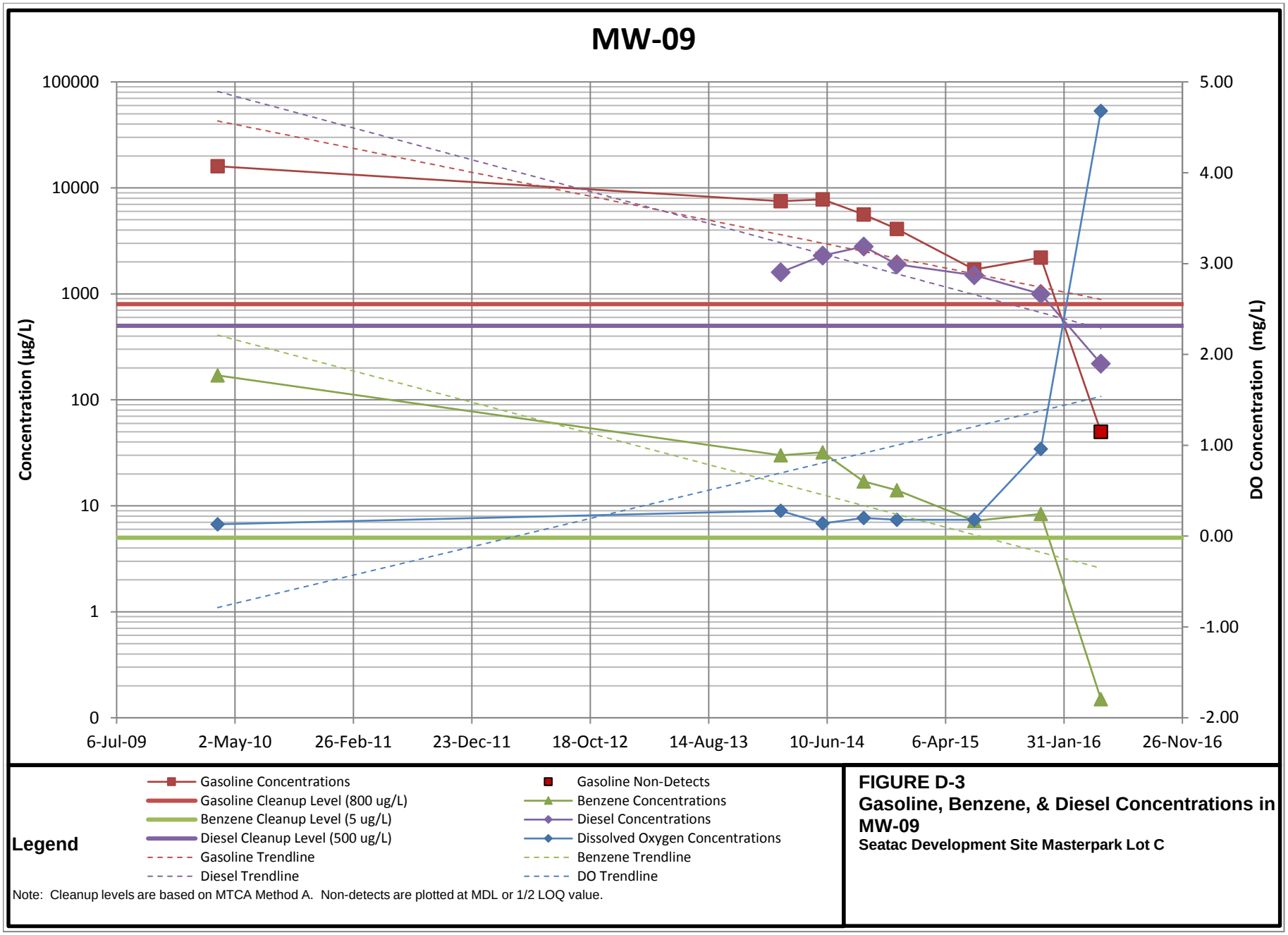

Note: Cleanup levels are based on MTCA Method A. Non-detects are plotted at MDL or 1/2 LOQ value.

FIGURE D-3
Gasoline, Benzene, & Diesel Concentrations in MW-09
Seatac Development Site Masterpark Lot C

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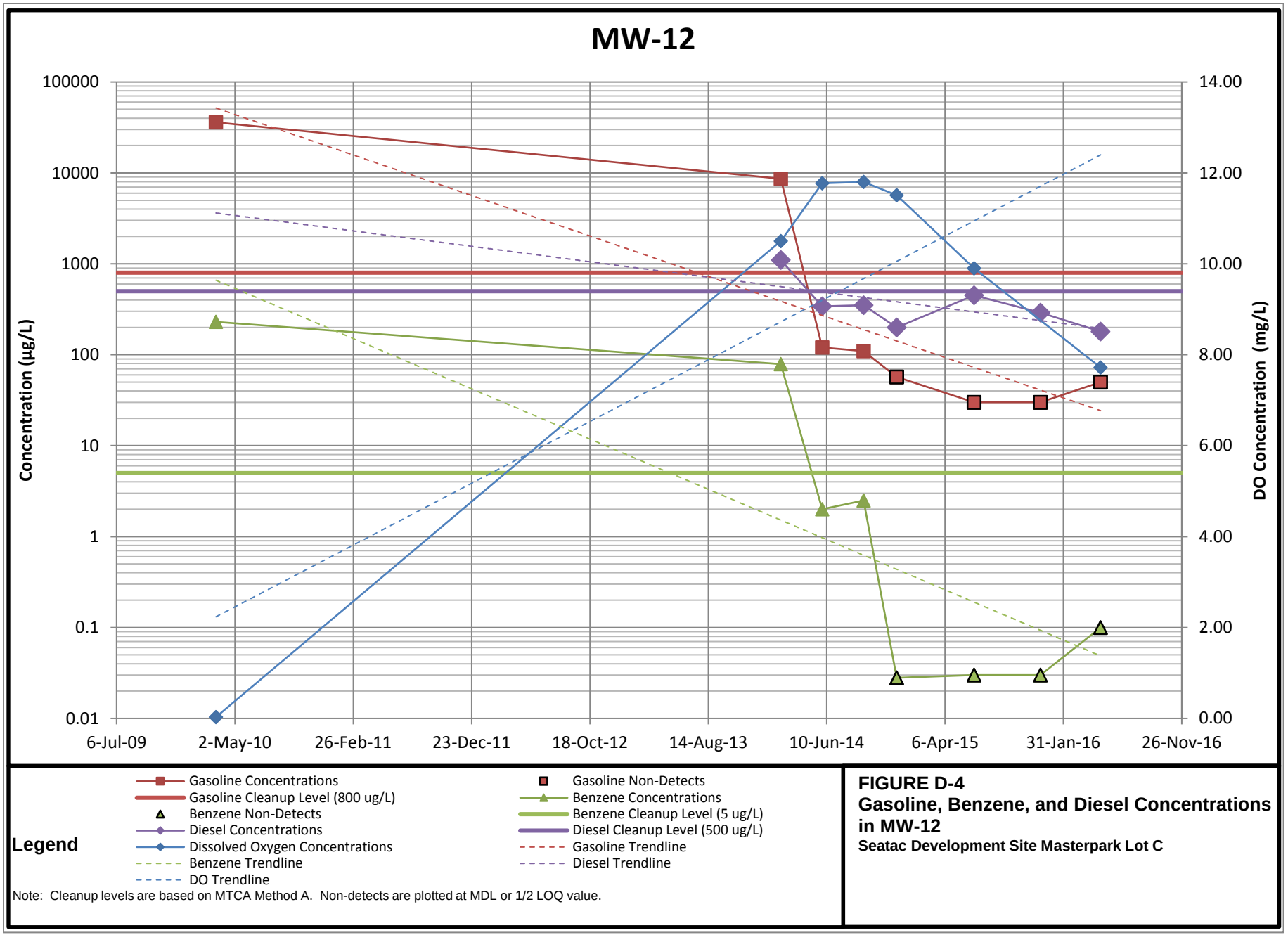

FIGURE D-4
Gasoline, Benzene, and Diesel Concentrations in MW-12
Seatac Development Site Masterpark Lot C

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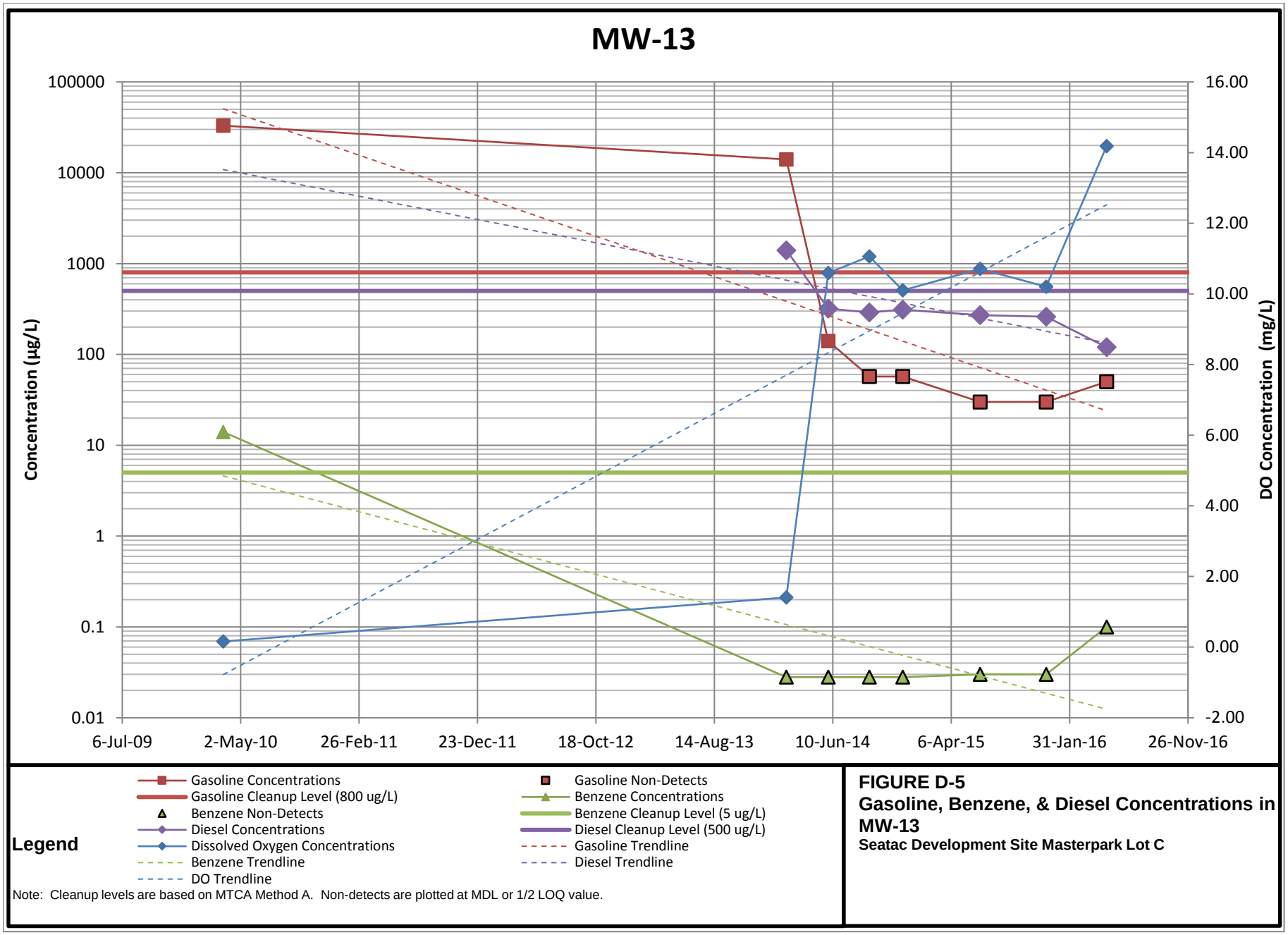

Note: Cleanup levels are based on MTCA Method A. Non-detects are plotted at MDL or 1/2 LOQ value.

FIGURE D-5
Gasoline, Benzene, & Diesel Concentrations in MW-13
Seatac Development Site Masterpark Lot C

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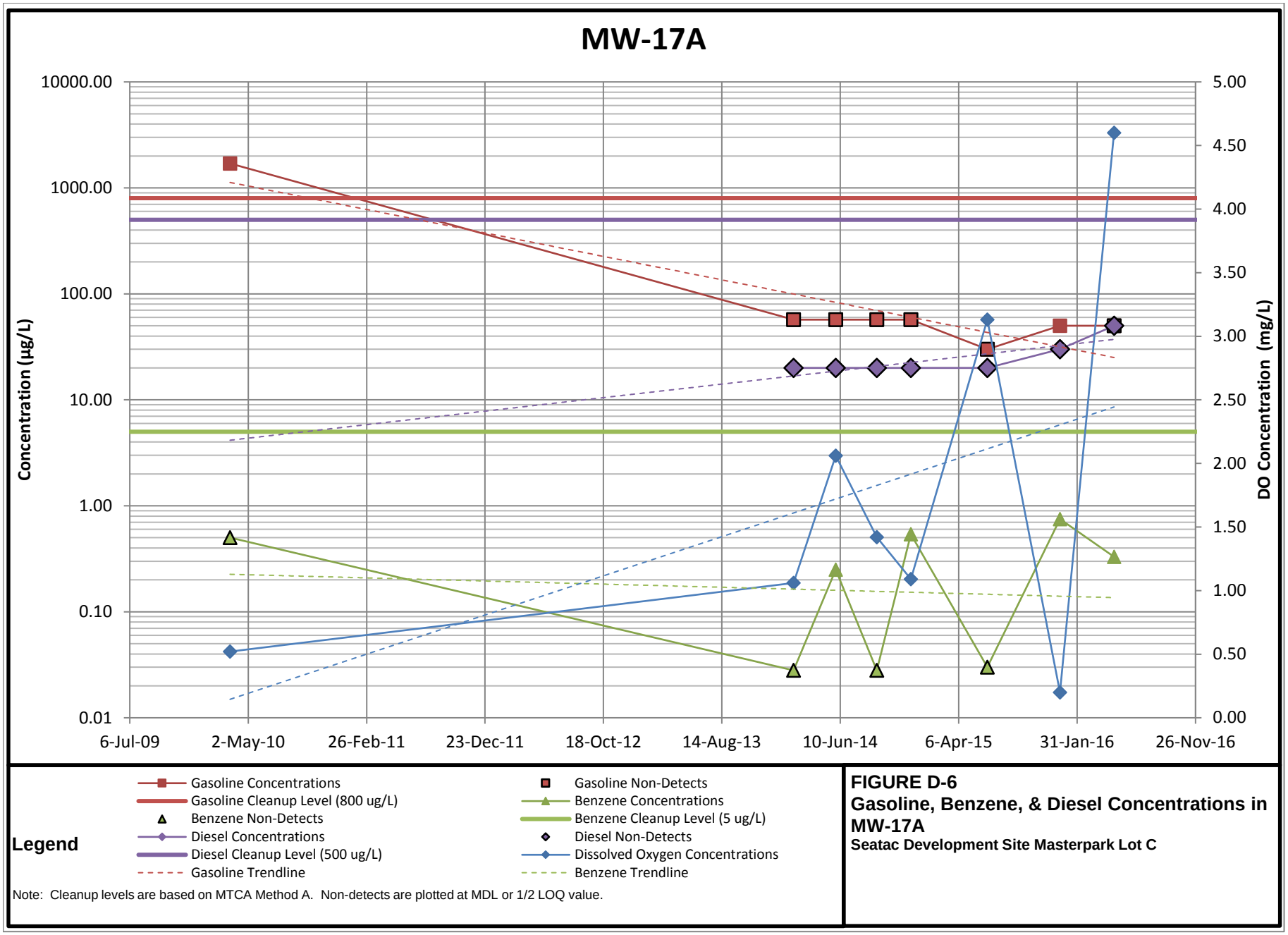

Note: Cleanup levels are based on MTCA Method A. Non-detects are plotted at MDL or 1/2 LOQ value.

FIGURE D-6
Gasoline, Benzene, & Diesel Concentrations in MW-17A
Seatac Development Site Masterpark Lot C

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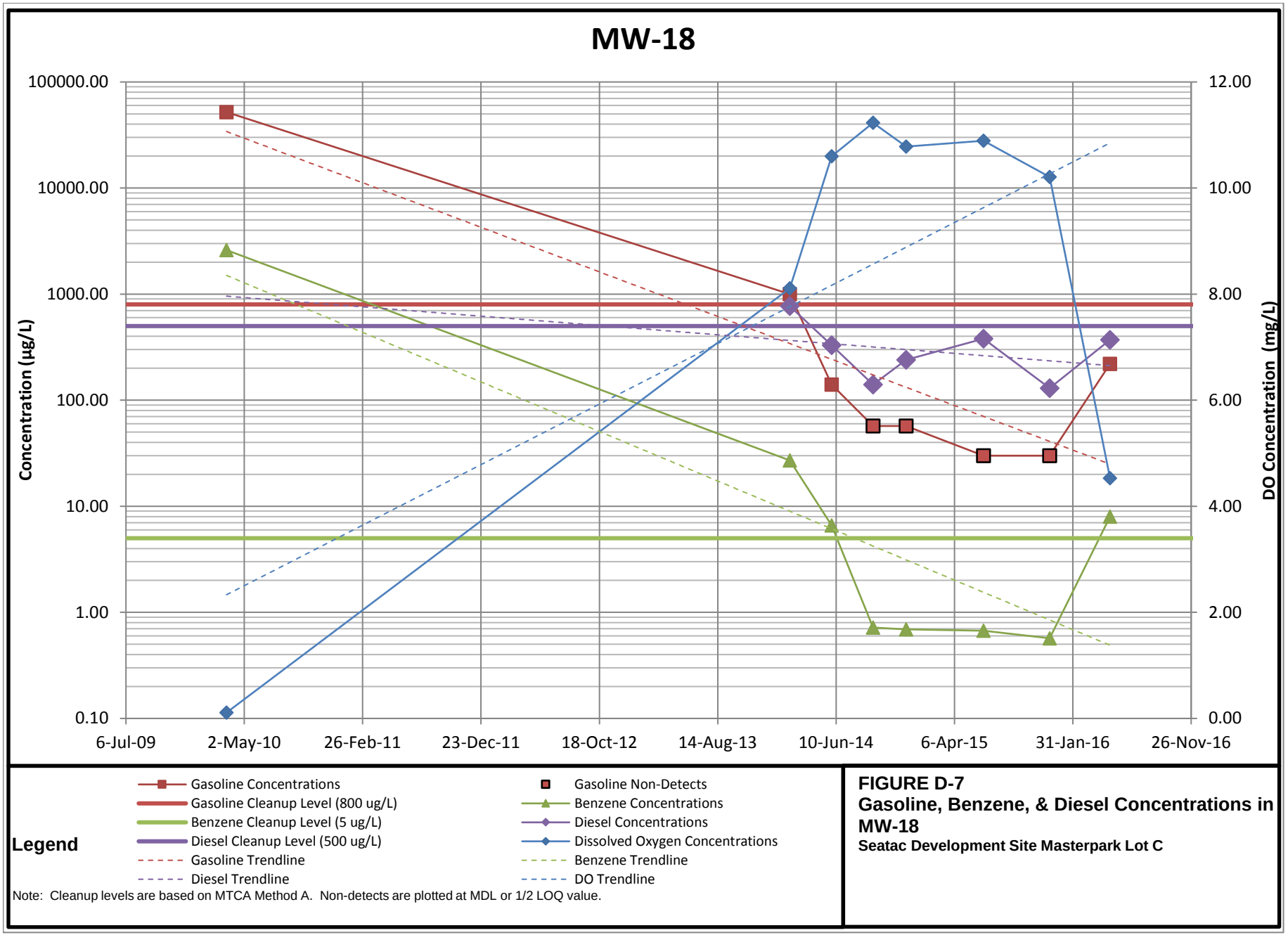

FIGURE D-7
Gasoline, Benzene, & Diesel Concentrations in MW-18
Seatac Development Site Masterpark Lot C

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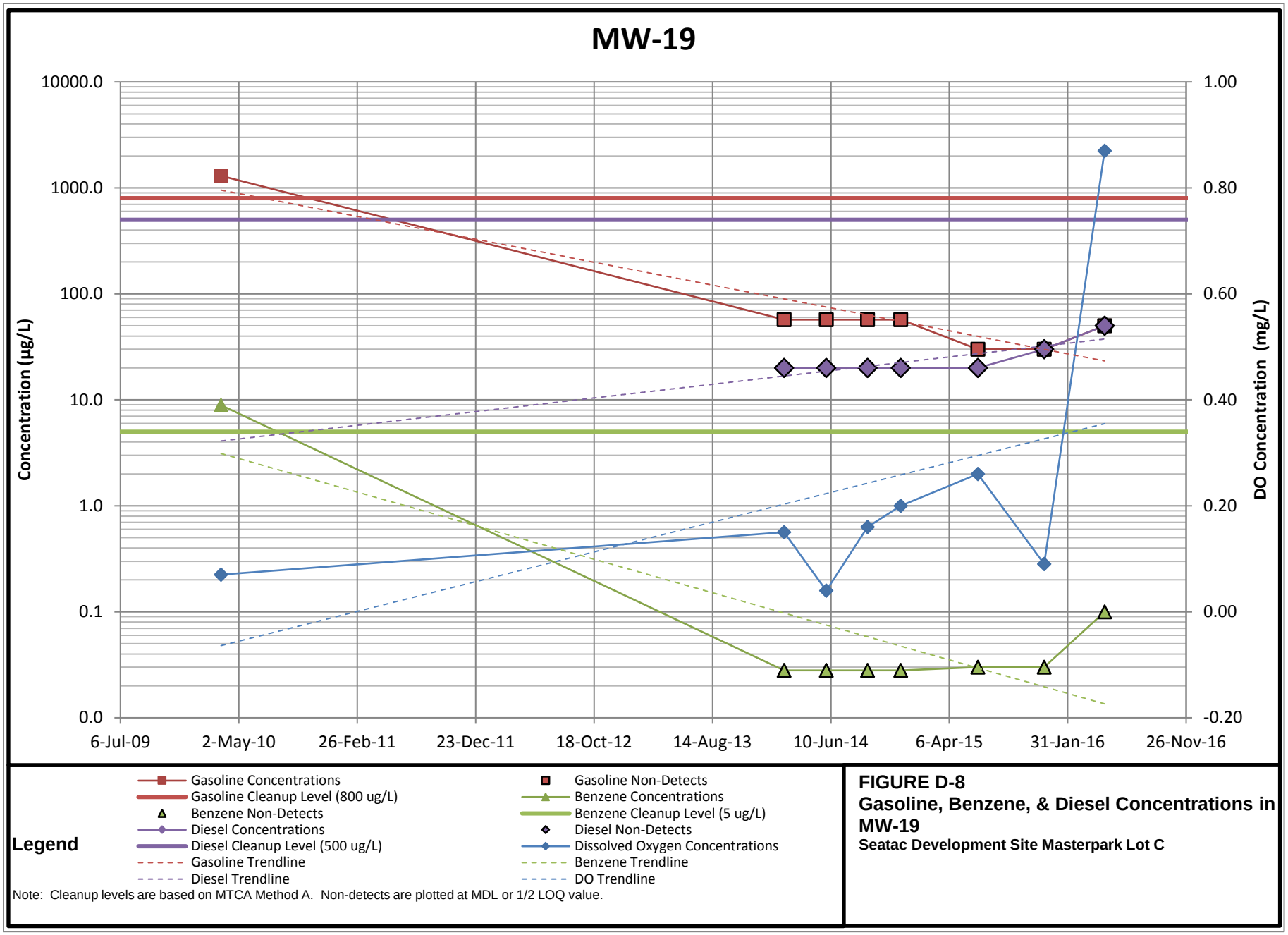

FIGURE D-8
Gasoline, Benzene, & Diesel Concentrations in MW-19
Seatac Development Site Masterpark Lot C

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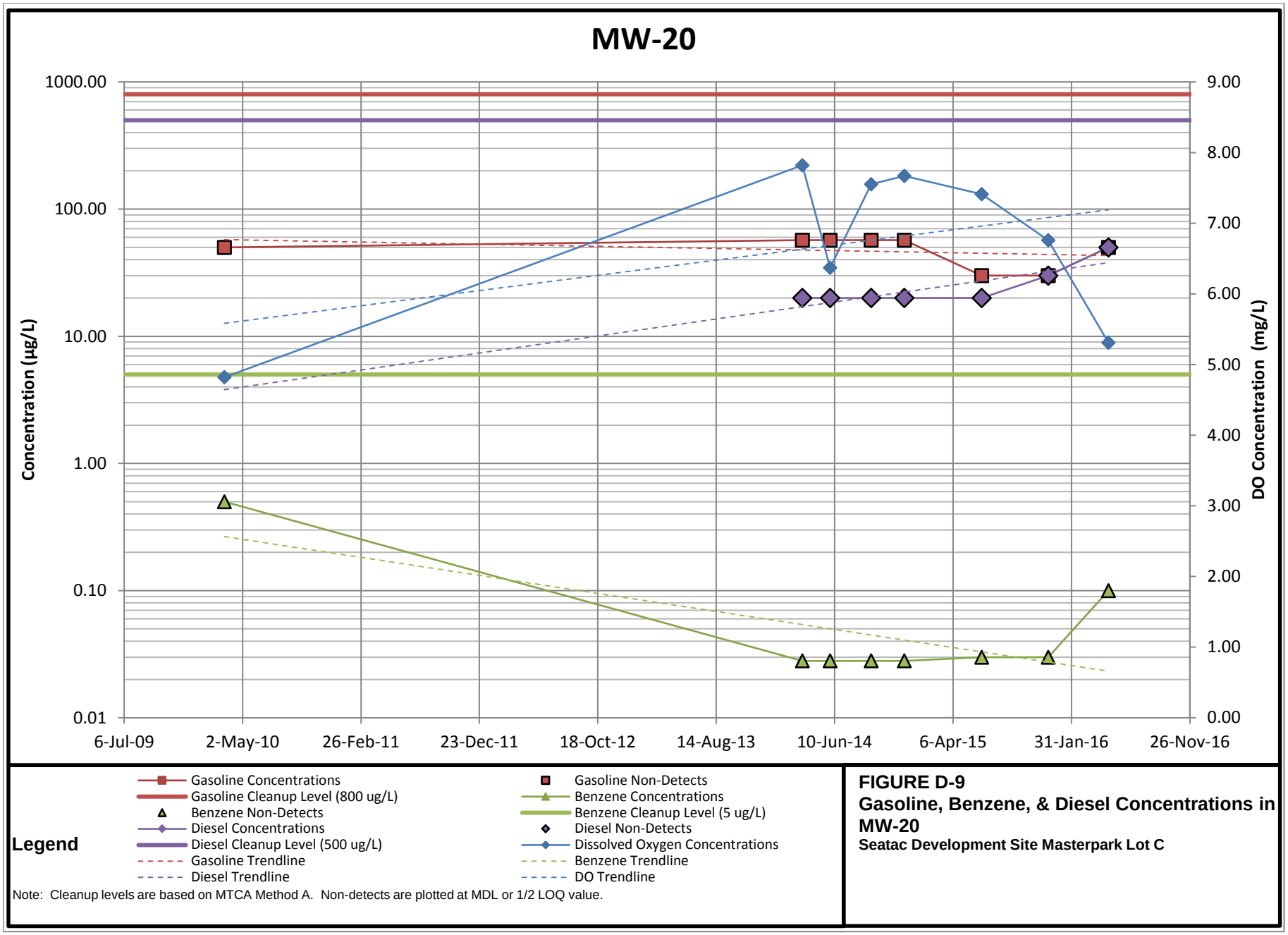


Note: Cleanup levels are based on MTCA Method A. Non-detects are plotted at MDL or 1/2 LOQ value.

FIGURE D-9
Gasoline, Benzene, & Diesel Concentrations in MW-20
Seatac Development Site Masterpark Lot C

Golder Associates

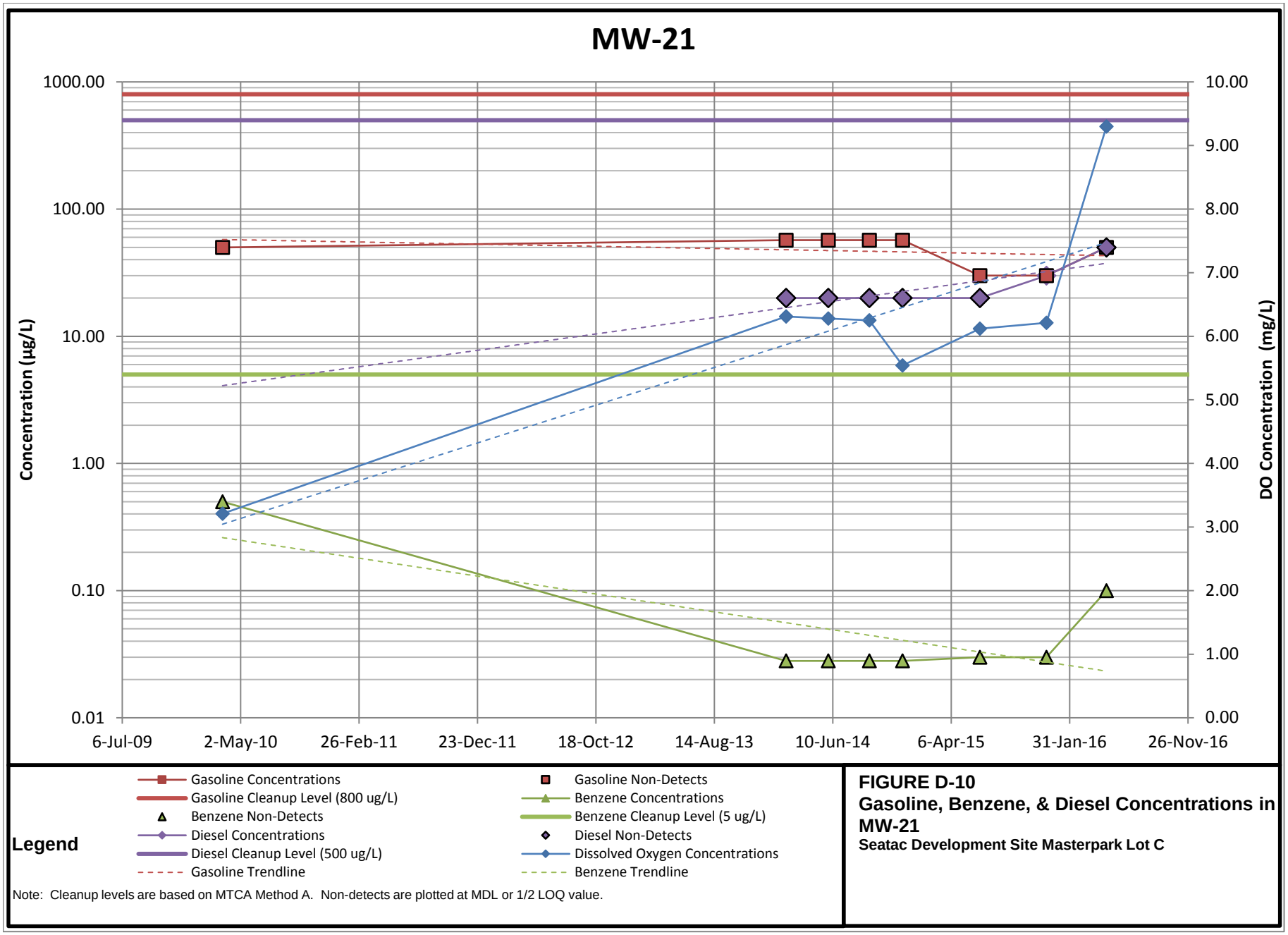
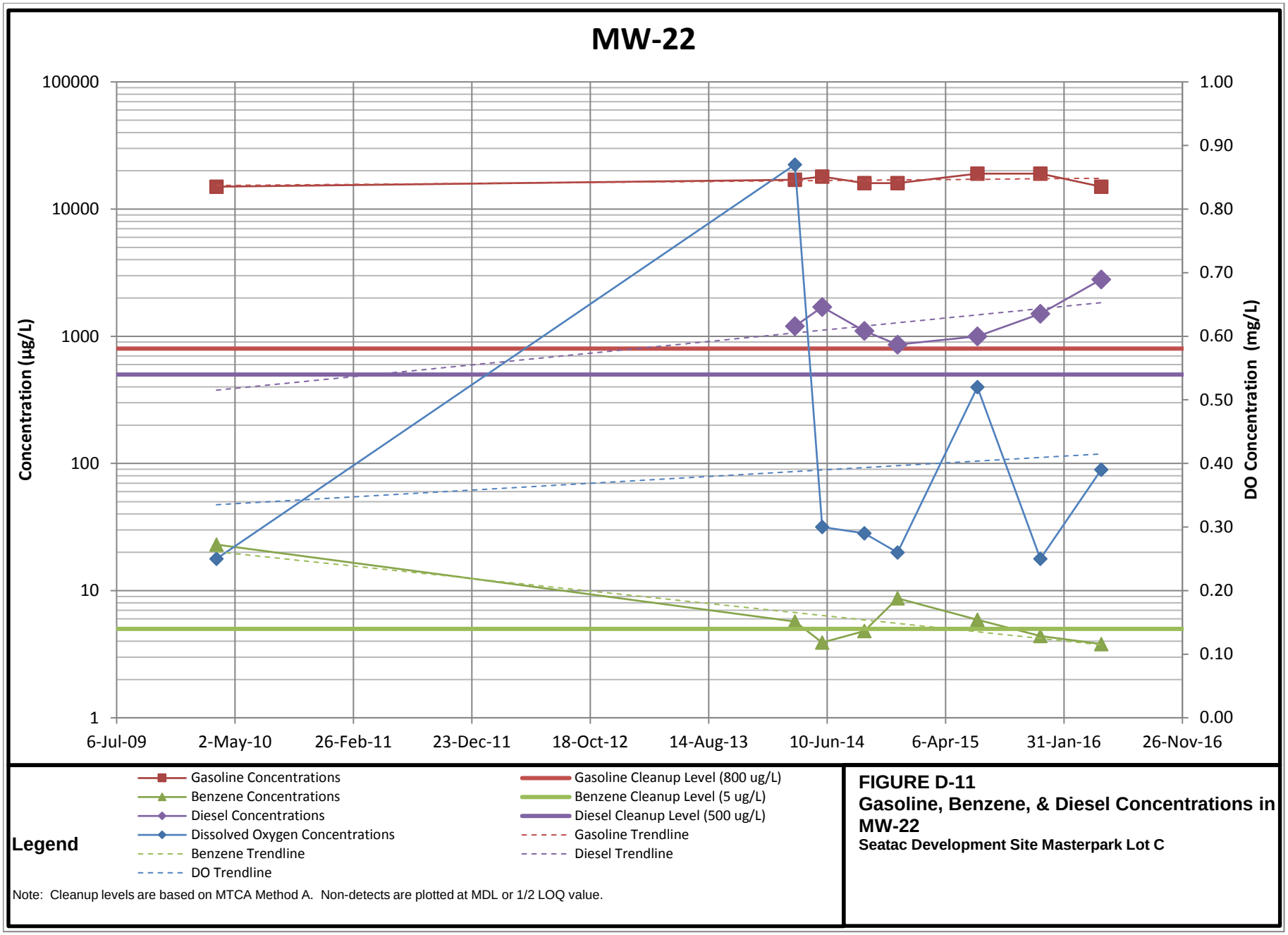


FIGURE D-10
Gasoline, Benzene, & Diesel Concentrations in MW-21
Seatac Development Site Masterpark Lot C

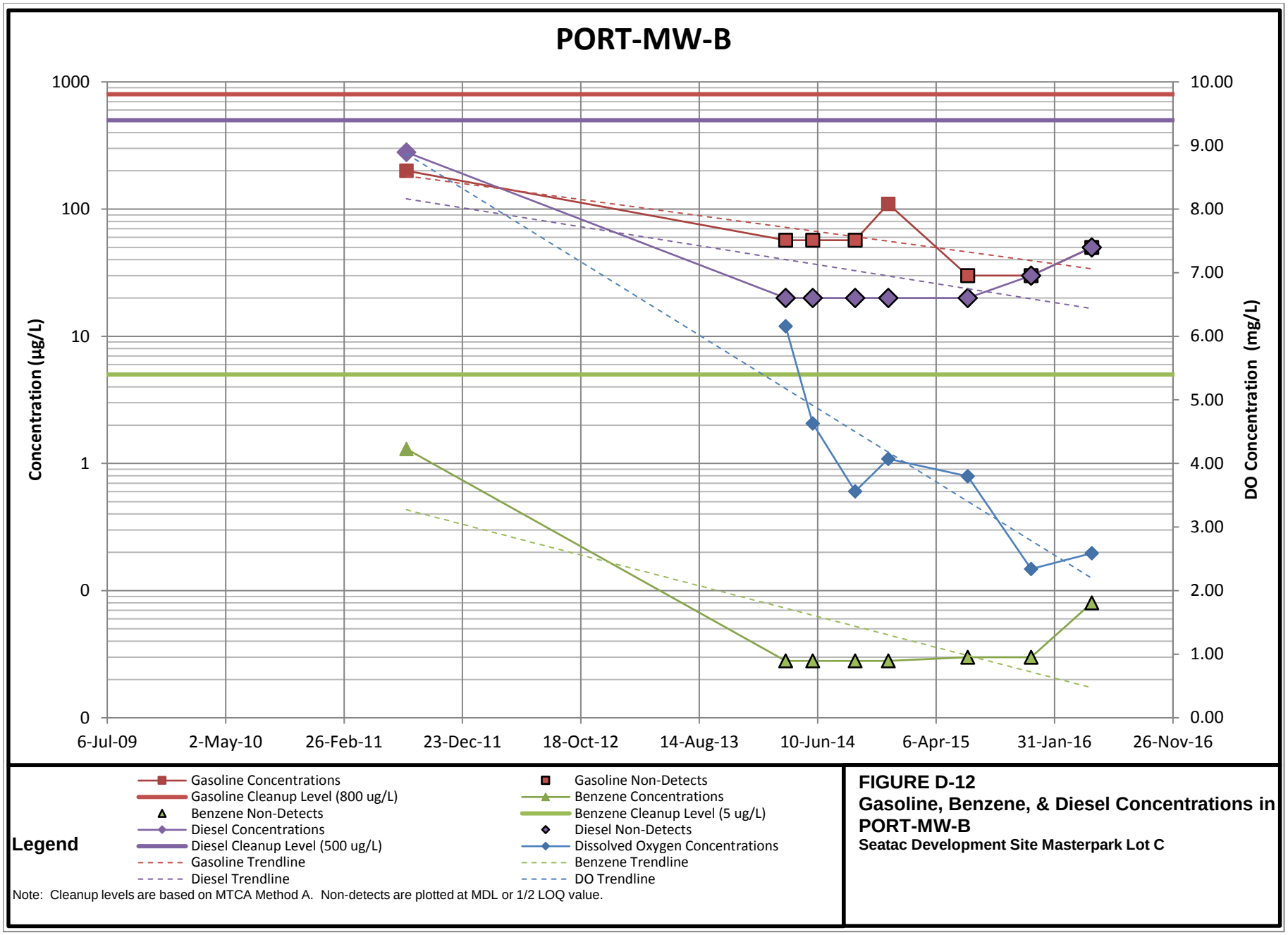
Golder Associates



Note: Cleanup levels are based on MTCA Method A. Non-detects are plotted at MDL or 1/2 LOQ value.

FIGURE D-11
Gasoline, Benzene, & Diesel Concentrations in MW-22
Seatac Development Site Masterpark Lot C

Golder Associates



Note: Cleanup levels are based on MTCA Method A. Non-detects are plotted at MDL or 1/2 LOQ value.

FIGURE D-12
Gasoline, Benzene, & Diesel Concentrations in PORT-MW-B
Seatac Development Site Masterpark Lot C

Golder Associates