CONESTOGA-ROVERS
& ASSOCIATES

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Lynnwood, Washington 98036
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March 21, 2014

Reference No. 061992

Ms. Maureen Sanchez
Department of Ecology
Northwest Regional Office
3190 160th Avenue Southeast
Bellevue, Washington 98008

Re: Fourth Quarter 2013 Groundwater Monitoring and Sampling Report
Former Tidewater Site
Phillips 66 Site 5173
Chevron Site 301233
2800 Martin Luther King Junior Way South
Seattle, Washington
DOE Case 42746846; VCP No. NW2612

Dear Mr. Bails,

Conestoga-Rovers & Associates (CRA) is submitting this *Fourth Quarter 2013 Groundwater Monitoring and Sampling Report* for the site referenced above (Figure 1) on behalf of Phillips 66 Company and Chevron Environmental Management Company. Groundwater monitoring and sampling was performed by CRA. CRA's field forms are presented as Attachment A. Eurofins Lancaster Laboratory Environmental, LLCs' *Analytical Results* report is included as Attachment B. Graphs depicting total petroleum hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), and benzene concentrations over time for select wells are included as Attachment C. A summary of previous site investigations is included as Attachment D. A site map is presented on Figure 2.

RESULTS OF FOURTH QUARTER 2013 EVENT

On November 13 and 14, 2013, CRA monitored and sampled the site wells per the established schedule. Results of the current monitoring event indicate the following.

- Groundwater Flow Direction — Southwest (Figure 3)
- Hydraulic Gradient — 0.03
- Approximate Depth to Water — 11 to 13 feet below grade
- Approximate Groundwater Elevation — 46 to 51 feet above mean sea level

Current and historical groundwater monitoring and sampling data are presented in Table 1, and current concentration data are presented below in Table A and on Figure 4.

TABLE A: GROUNDWATER ANALYTICAL DATA

Well ID	*TPHg (µg/L)*	*TPHd (µg/L)*	*TPHo (µg/L)*	*Benzene (µg/L)*	*Toluene (µg/L)*	*Ethylbenzene (µg/L)*	*Total Xylenes (µg/L)*
MTCA Method A Cleanup Levels	*800/1000**	*500*	*500*	*5*	*1000*	*700*	*1000*
MW-1	<50	<32	<74	<0.5	<0.5	<0.5	<0.5
MW-2	700	160	<67	1	<0.5	<0.5	<0.5
MW-3	**3,100**	120	<67	<0.5	<0.5	33	120
MW-4	<50	<31	<73	<0.5	<0.5	0.5	<0.5
MW-5	**2,000**	240	<75	0.7	0.7	19	14
MW-6	<50	<29	<67	<0.5	<0.5	<0.5	<0.5
MW-7	<50	<29	<67	<0.5	<0.5	<0.5	<0.5
MW-8	**8,900**	390	<67	<0.5	0.5	79	740
MW-8 DUP	**8,000**	320	<67	<0.5	0.6	87	760
MW-9	120	<29	<67	<0.5	<0.5	<0.5	<0.5
MW-10	210	50	<67	2	<0.5	<0.5	3

Bold Indicates concentration exceed MTCA Method A cleanup level
* TPHg Cleanup Level for wells containing benzene is 800 µg/L; otherwise cleanup level is 1,000 µg/L.
µg/L micrograms per liter
TPHo total petroleum hydrocarbons as oil

CONCLUSIONS AND RECOMMENDATIONS

The results of ongoing groundwater monitoring and sampling at the site indicate:

- TPHg concentrations exceeded the Washington State Ecology (Ecology) Model Toxics Control Act (MTCA) Method A cleanup level in groundwater wells MW-3, MW-5, and MW-8, with the highest concentration detected at MW-8 (Figure 5).
- TPHd concentrations were below MTCA Method A cleanup levels in all wells.
- TPHo concentrations were below MTCA Method A cleanup levels in all wells.
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations were all below the MTCA Method A cleanup levels in groundwater.

- With the exception of source area well MW-8, hydrocarbon concentrations exhibit decreasing concentration trends over time. Hydrocarbon concentrations in MW-8 have been stable.

CRA recommends continuing quarterly monitoring and sampling to further evaluate concentration trends over time.

ANTICIPATED FUTURE ACTIVITIES

Groundwater Monitoring
CRA will monitor and sample site wells per the established schedule. The first quarter 2014 event is scheduled to be performed in February 2014. CRA will submit a groundwater monitoring and sampling report approximately 90 days following receipt of laboratory analytical results.

Remedial Investigation/Feasibility Study (RI/FS) Work Plan
CRA submitted a RI/FS Work Plan to the Department of Ecology in November 2013. Plans are underway to implement the work plan by the end of first quarter 2014.

Please contact Edwin Turner at (425) 563-6500 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Edwin J Turner

Edwin Turner

ET/aa/8

Encl.

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Groundwater Elevations and Contour Map
Figure 4	Groundwater Concentration Map
Figure 5	TPHg Isoconcentration Contour Map
Figure 6	TPHd Isoconcentration Contour Map
Table 1	Groundwater Monitoring and Sampling Data
Attachment A	Monitoring Data Package
Attachment B	Laboratory Analytical Report
Attachment C	Concentration Trend Graphs
Attachment D	Summary of Previous Investigations

cc: Mr. Brett Hunter, Chevron *(electronic copy)*
Mr. Ed Ralston, Phillips 66 *(electronic copy)*
Thom Morin, Evironmental Partners, Inc. *(electronic copy)*

FIGURES

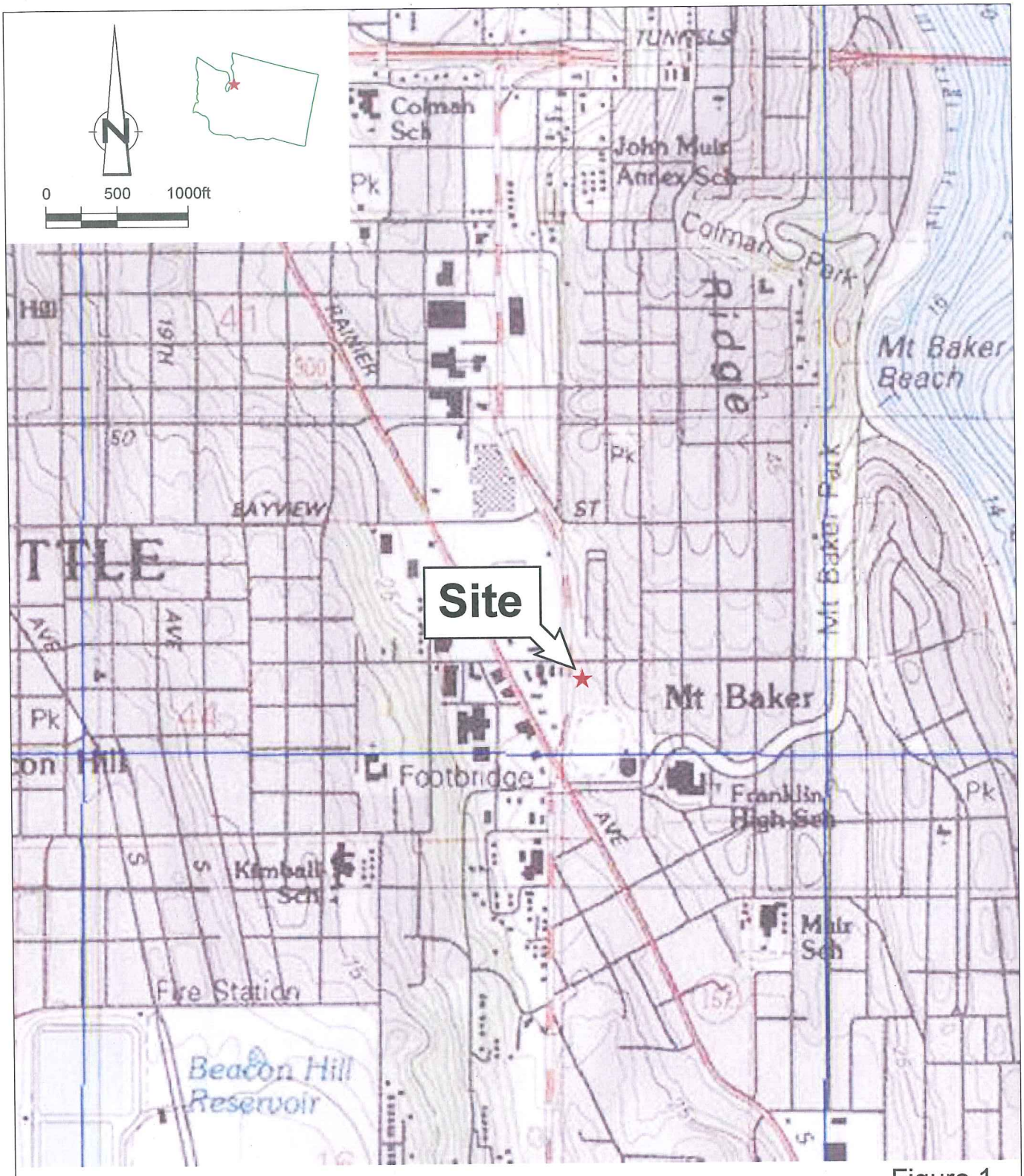

Figure 1

VICINITY MAP
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING WAY SOUTH
Seattle, Washington

CRA

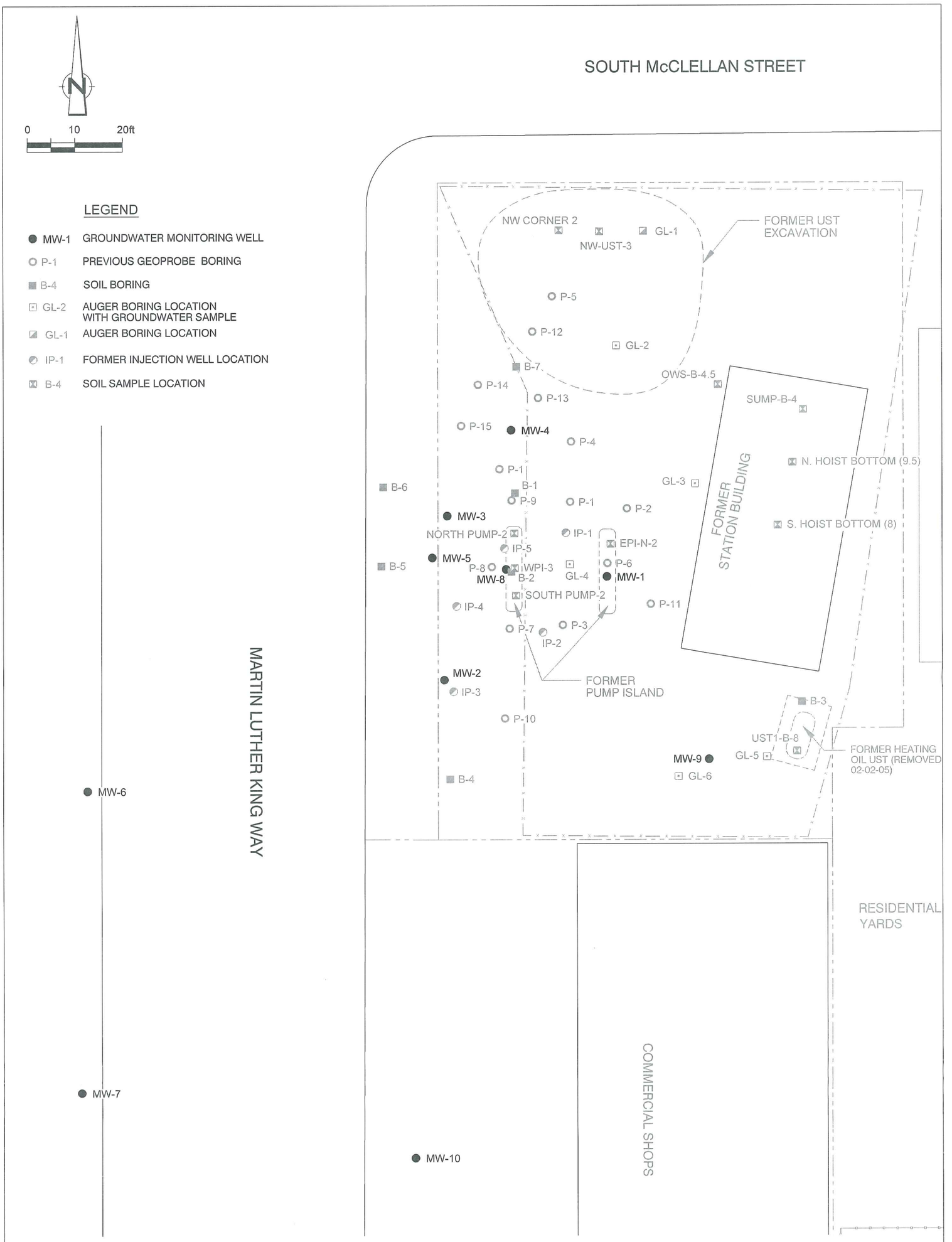

Figure 2

SITE PLAN
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING WAY SOUTH
Seattle, Washington

CRA

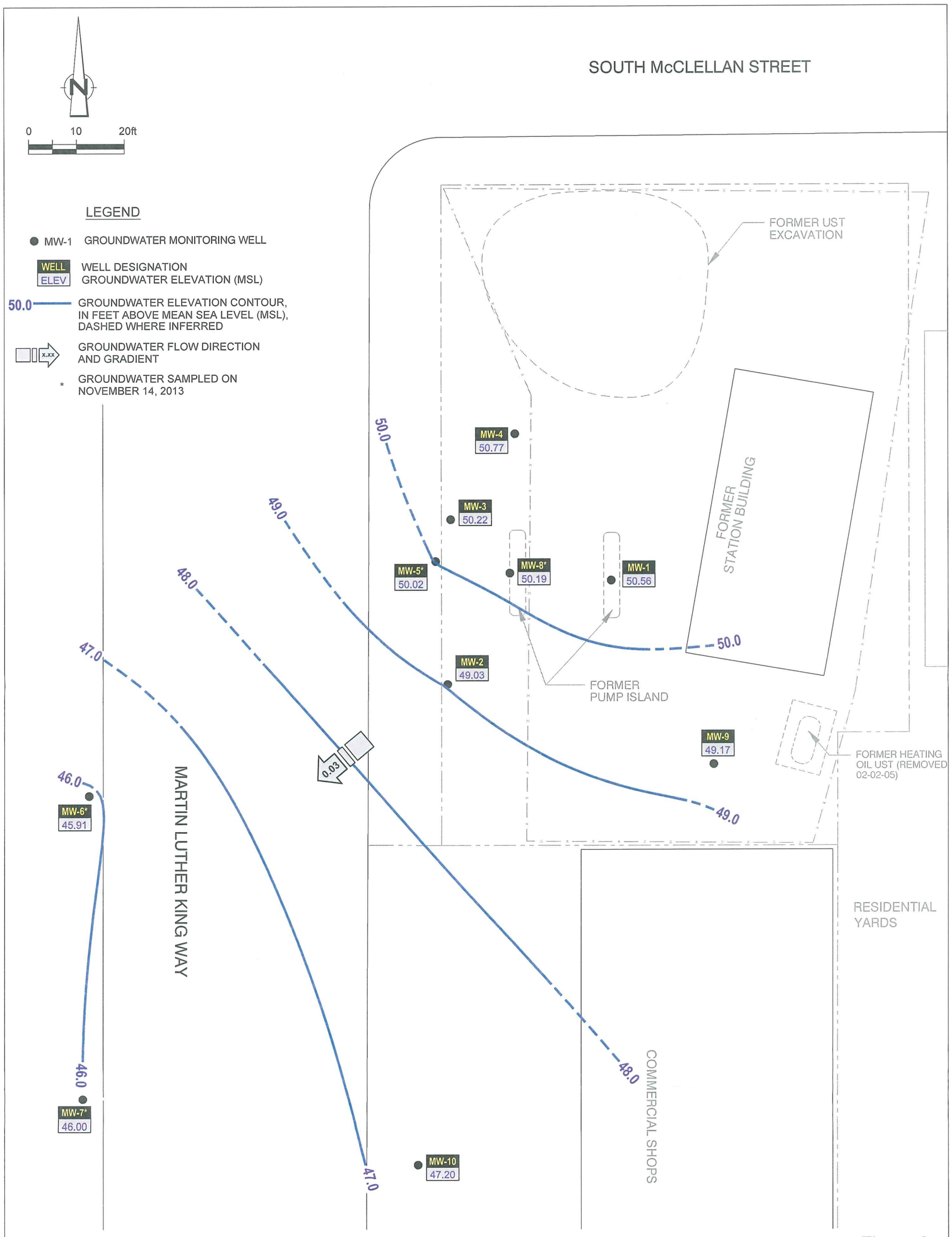

Figure 3

GROUNDWATER ELEVATION CONTOUR MAP
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING WAY SOUTH
Seattle, Washington
November 13, 2013

CRA

061992-95(008)GN-EM003 JAN 15/2014

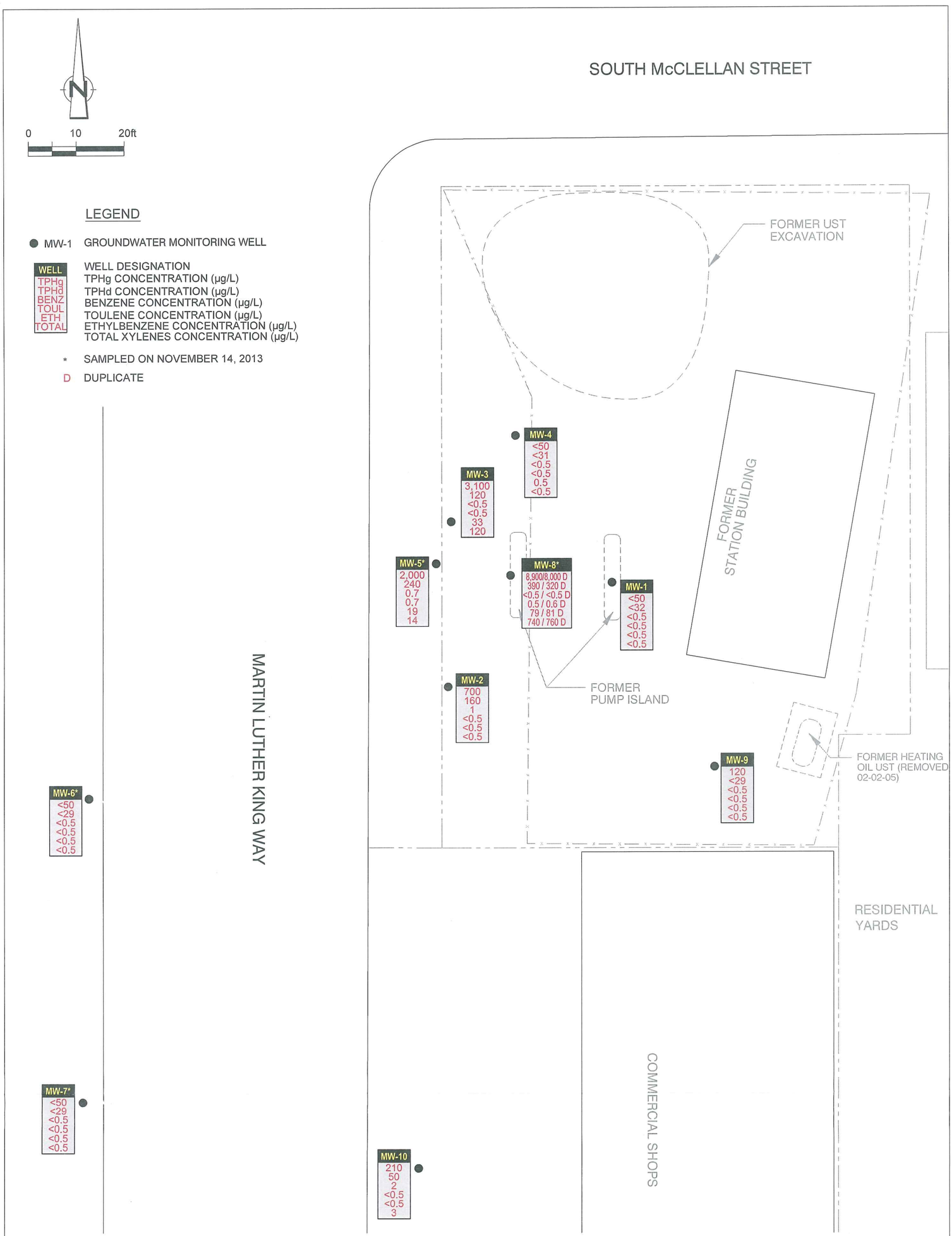

Figure 4

GROUNDWATER CONCENTRATION MAP
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING WAY SOUTH
Seattle, Washington
November 13, 2013

CRA

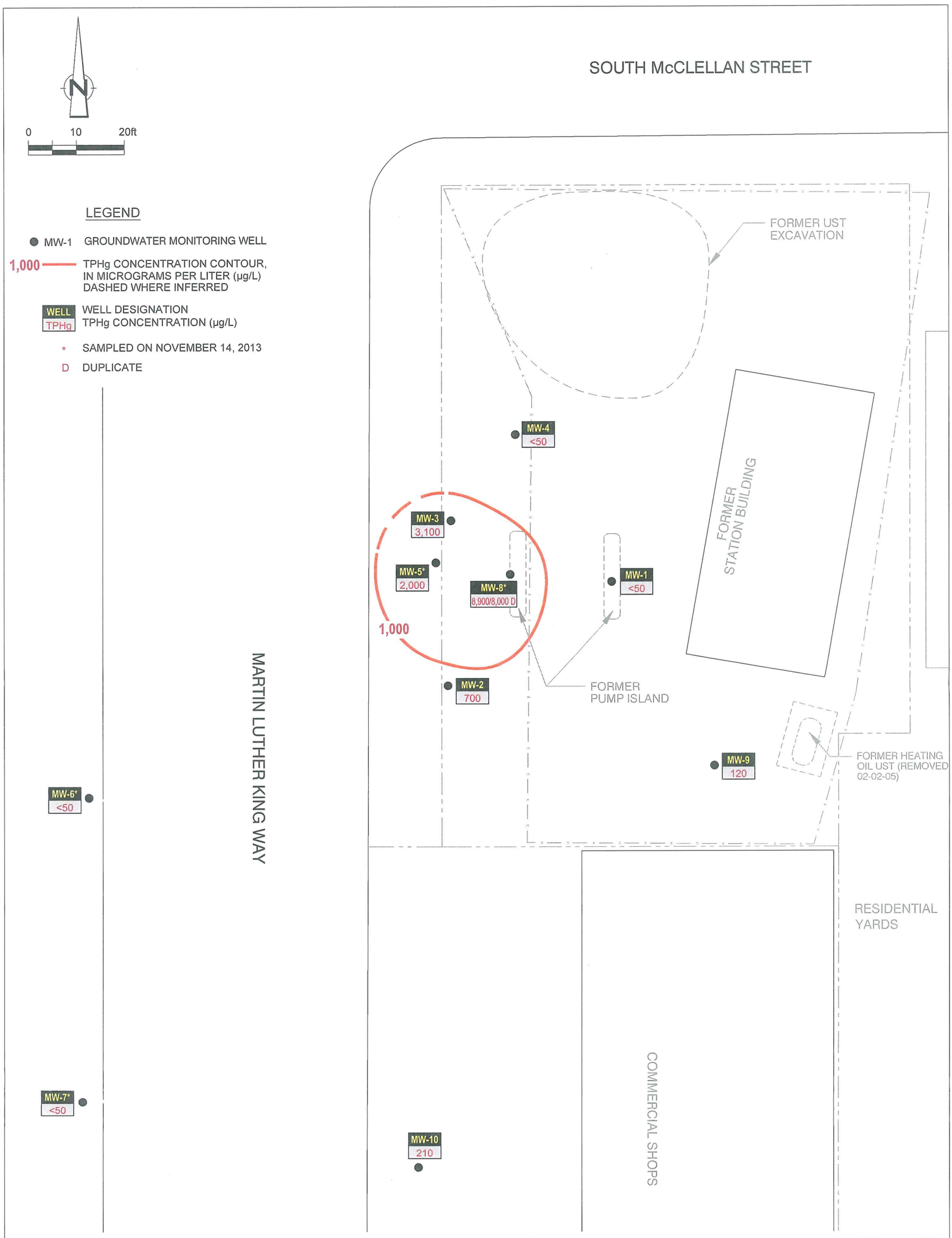

Figure 5

TPHg ISOCONCENTRATION CONTOUR MAP
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING WAY SOUTH
Seattle, Washington
August 29, 2013

CRA

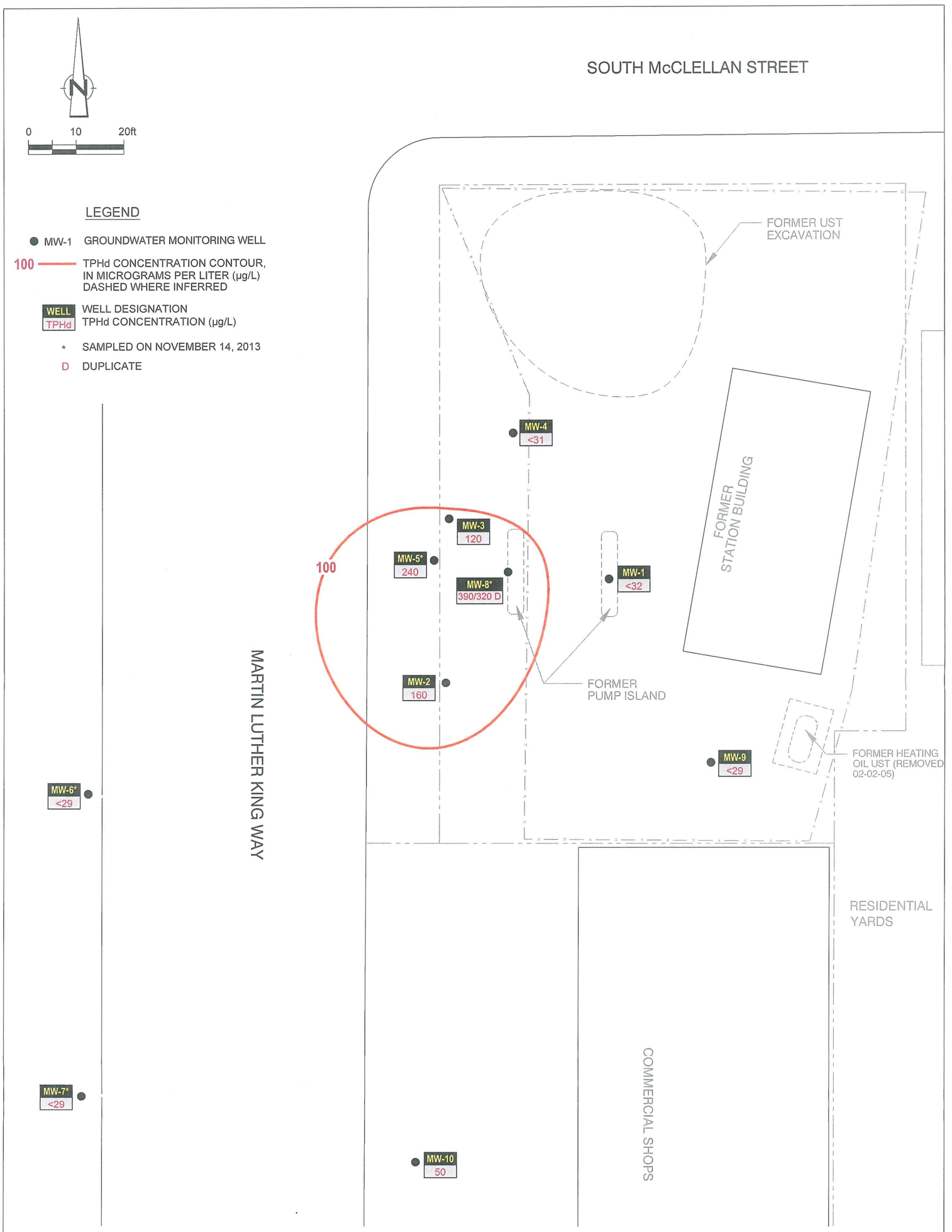

Figure 6

TPHd ISOCONCENTRATION CONTOUR MAP
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING WAY SOUTH
Seattle, Washington
November 13, 2013

TABLE

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON

					HYDROCARBONS			PRIMARY VOCS														
Location	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	cPAHs
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	08/19/2005	97.92	13.01	84.91	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
MW-1	10/27/2005	97.92	12.62	85.30	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
MW-1	12/27/2005	97.92	-	-	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
MW-1	01/12/2006	97.92	9.03	88.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	03/02/2006	97.92	10.56	87.36	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
MW-1	06/28/2006	97.92	12.42	85.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	12/01/2006	97.92	9.33	88.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	12/06/2006	97.92	9.72	88.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	02/28/2007	97.92	11.04	86.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	03/07/2007	97.92	11.14	86.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	04/11/2007	97.92	11.06	86.86	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
MW-1	11/12/2009	97.92	11.08	86.84	<50	-	-	<1.0	<1.0	<1.0	<3.0	-	-	-	-	-	-	-	-	-	-
MW-1	08/30/2011[3]	97.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	12/15/2011[3]	97.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	02/06/2012	62.35	9.84	52.51	260	430	620	<0.5	41	3	18	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-1	05/30/2012	62.35	10.63	51.72	<50	35	170	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	1.7	0.007399
MW-1	08/08/2012	62.35	11.36	50.99	<50	<29[4]	<67[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.32	-
MW-1	12/05/2012	62.35	9.51	52.84	<50	<29[4]	<69[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	27.7	-
MW-1	02/26/2013	62.35	10.62	51.73	<50	<30[4]	<71[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.42	-
MW-1	05/23/2013	62.35	11.14	51.21	<50	<29[4]	<67[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	1.7	-
MW-1	08/29/2013	62.35	12.10	50.25	<50	<29[4]	<67[4]	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.42	-
MW-1	**11/13/2013**	**62.35**	**11.79**	**50.56**	**<50**	**<32[4]**	**<74[4]**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**	**0.15**	**-**
MW-2	08/19/2005	96.25	13.02	83.23	2,000	-	-	ND	10	81	91	-	-	-	-	-	-	-	-	-	-
MW-2	10/27/2005	96.25	13.62	82.63	2,300	-	-	ND	ND	89	93	-	-	-	-	-	-	-	-	-	-

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON

					HYDROCARBONS			PRIMARY VOCS													
Location	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	cPAHs
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-2	12/27/2005	96.25	-	-	820	-	-	ND	ND	21	66	-	-	-	-	-	-	-	-	-	-
MW-2	01/12/2006	96.25	5.77	90.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/02/2006	96.25	11.82	84.43	1,300	-	-	ND	3.9	23	50	-	-	-	-	-	-	-	-	-	-
MW-2	04/13/2006	96.25	13.06	83.19	470	-	-	ND	1.4	6.9	15	-	-	-	-	-	-	-	-	-	-
MW-2	06/28/2006	96.25	12.40	83.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/11/2006	96.25	13.64	82.61	580	-	-	ND	1.6	2.9	6.2	-	-	-	-	-	-	-	-	-	-
MW-2	12/01/2006	96.25	10.65	85.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/06/2006	96.25	10.20	86.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	01/12/2007	96.25	11.06	85.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	02/12/2007	96.25	-	-	1,400	-	-	1.4	3.5	16	13	-	-	-	-	-	-	-	-	-	-
MW-2	02/28/2007	96.25	11.65	84.60	1,200	-	-	2	4	18	60	-	-	-	-	-	-	-	-	-	-
MW-2	03/07/2007	96.25	11.43	84.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	04/11/2007	96.25	11.07	85.18	1,200	-	-	ND	3	11	63	-	-	-	-	-	-	-	-	-	-
MW-2	11/12/2009	96.25	12.35	83.90	455	-	-	<1.0	<1.0	<1.0	<3.0	-	-	-	-	-	-	-	-	-	-
MW-2	08/31/2011	60.72	11.96	48.76	960	590	-	1	<0.7	1	6	<1	<1	<0.5	<1	<1	<1	59	24	-	-
MW-2	12/15/2011	60.72	11.53	49.19	750	30	-	1	<0.7	1	<1.6	<1	<1	<0.5	<1	<1	<1	60	25	-	-
MW-2	02/06/2012	60.72	10.26	50.46	780	390	-	1	2	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	55	22	-	-
MW-2	05/30/2012	60.72	10.83	49.89	480	210	<67	0.8	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	47	21	3.8	0.007173
MW-2	08/08/2012	60.72	11.95	48.77	670	160[4]	<67[4]	0.9	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<1	<1	<1	48	24	8.3	-
MW-2	12/05/2012	60.72	10.61	50.11	590	250[4]	<73[4]	2	<0.5	3	11	<0.5	<0.5	<0.5	<1	<1	<1	37	17	13.1	-
MW-2	02/26/2013	60.72	10.57	50.15	770	150[4]	<68[4]	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	39	19	0.19	-
MW-2	05/23/2013	60.72	11.15	49.57	470	200[4]	<66[4]	0.7	<0.5	<0.5	3	<0.5	<0.5	<0.5	<1	<1	<1	46	21	0.12	-
MW-2	08/29/2013	60.72	12.11	48.61	740	200[4]	<67[4]	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<1	<1	36	17	0.36	-
MW-2	11/13/2013	60.72	11.69	49.03	700	160[4]	<67[4]	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	48	21	0.14	-

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON

					HYDROCARBONS			PRIMARY VOCS													
Location	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	cPAHs
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-3	08/19/2005	97.43	12.72	84.71	44,000	-	-	4.1	18	780	3,600	-	-	-	-	-	-	-	-	-	-
MW-3	12/27/2005	97.43	13.42	84.01	17,000	-	-	ND	38	580	3,000	-	-	-	-	-	-	-	-	-	-
MW-3	12/28/2005	-	-	-	6,600	-	-	5	22	200	1,100	-	-	-	-	-	-	-	-	-	-
MW-3	01/12/2006	97.43	8.84	88.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	03/02/2006	97.43	10.90	86.53	22,000	-	-	ND	26	450	4,200	-	-	-	-	-	-	-	-	-	-
MW-3	04/13/2006	97.43	11.92	85.51	33,000	-	-	ND	3	700	3,100	-	-	-	-	-	-	-	-	-	-
MW-3	06/28/2006	97.43	12.17	85.26	53,000	-	-	ND	17	530	2,600	-	-	-	-	-	-	-	-	-	-
MW-3	08/13/2006	97.43	13.91	83.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	09/11/2006	97.43	13.77	83.66	14,000	-	-	ND	5.6	180	1,100	-	-	-	-	-	-	-	-	-	-
MW-3	10/13/2006	97.43	-	-	1,400	-	-	ND	1	26	98	-	-	-	-	-	-	-	-	-	-
MW-3	11/17/2006	97.43	10.56	86.87	48,000	-	-	ND	34	490	4,100	-	-	-	-	-	-	-	-	-	-
MW-3	12/01/2006	97.43	9.78	87.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	12/06/2006	97.43	10.01	87.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	01/12/2007	97.43	10.90	86.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	02/12/2007	97.43	-	-	36,000	-	-	ND	10	280	1,800	-	-	-	-	-	-	-	-	-	-
MW-3	02/28/2007	97.43	11.12	86.31	22,000	-	-	ND	6	200	1,400	-	-	-	-	-	-	-	-	-	-
MW-3	03/07/2007	97.43	11.17	86.26	21,000	-	-	ND	18	170	1,000	-	-	-	-	-	-	-	-	-	-
MW-3	04/11/2007	97.43	11.04	86.39	19,000	-	-	ND	6	110	1,100	-	-	-	-	-	-	-	-	-	-
MW-3	11/12/2009	97.43	11.98	85.45	71.7	-	-	ND	<1.0	<1.0	<3.0	-	-	-	-	-	-	-	-	-	-
MW-3	08/31/2011	61.81	12.10	49.71	7,400	370	<68	<1.0	<1	190	554	<2	<2	<1	67	1,300	330	140	47	-	-
MW-3	12/15/2011	61.81	11.38	50.43	5,400	<29	<67	<0.5	<0.7	120	400	<1	<1	<0.5	50	950	210	110	37	-	-
MW-3	02/06/2012	61.81	10.33	51.48	6,300	1,200	<68	<1	<1	130	523	<2	<2	<1	49	870	190	74	27	-	-
MW-3	05/30/2012	61.81	10.87	50.94	7,400	520	<66	<1	<1	160	660	<2	<2	<1	66	1,100	220	100	38	1.1	0.012868
MW-3	08/07/2012	61.81	11.42	50.39	8,100	290[4]	<67[4]	<1	<1	140	610	<1	<1	<1	71	830	140	86	33	0.98	-
MW-3	12/06/2012	61.81	9.91	51.90	6,700	290[4]	<69[4]	<0.5	<0.5	160	480	<0.5	<0.5	<0.5	75	860	160	100	41	0.36	-

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON

					HYDROCARBONS			PRIMARY VOCS													
Location	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	cPAHs
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-3	02/27/2013	61.81	10.88	50.93	9,500	510[1]	<66[1]	<0.5	<0.5	190	620	<0.5	<0.5	<0.5	73	1,200	240	130	51	0.70	-
MW-3	05/23/2013	61.81	11.00	50.81	5,800	240[1]	<67[1]	<0.5	<0.5	160	550	<0.5	<0.5	<0.5	82	1,200	170	130	45	2.6	-
MW-3	08/30/2013	61.81	12.04	49.77	4,300	260[1]	<70[1]	<0.5	<0.5	54	190	<0.5	<0.5	<0.5	33	680	52	81	33	0.26	-
MW-3	**11/13/2013**	**61.81**	**11.59**	**50.22**	**3,100**	**120[6]**	**<67[1]**	**<0.5**	**<0.5**	**33**	**120**	**<0.5**	**<0.5**	**<0.5**	**20**	**440**	**23**	**86**	**31**	**0.30**	**-**
MW-4	06/28/2006	98.36	12.40	85.96	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
MW-4	12/01/2006	98.36	9.90	88.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	12/06/2006	98.36	10.21	88.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	02/28/2007	98.36	11.43	86.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	03/07/2007	98.36	11.49	86.87	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
MW-4	04/11/2007	98.36	11.27	87.09	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
MW-4	11/12/2009	98.36	11.82	86.54	<50	-	-	<1.0	<1.0	<1.0	<3.0	-	-	-	-	-	-	-	-	-	-
MW-4	08/31/2011	62.75	12.42	50.33	<50	<29	<68	<0.5	<0.7	<0.8	<0.8	<2	<2	<0.5	<1	<1	<1	<1	<1	-	-
MW-4	12/15/2011	62.75	11.69	51.06	<50	<29	<67	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-4	02/06/2012	62.75	10.50	52.25	<50	55	<67	<0.5	<0.7	<0.8	<1.6	<2	<2	<0.5	<1	<1	<1	<1	<1	-	-
MW-4	05/30/2012	62.75	11.11	51.64	<50	<29	<67	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	1.8	0.007248
MW-4	08/07/2012	62.75	11.76	50.99	<50	<29[1]	<68[1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.34	-
MW-4	12/05/2012	62.75	10.19	52.56	<50	<32[1]	<75[1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	4.0	-
MW-4	02/26/2013	62.75	11.15	51.60	<50	<28[1]	<66[1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.16	-
MW-4	05/23/2013	62.75	11.35	51.40	<50	<29[1]	<67[1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.74	-
MW-4	08/29/2013	62.75	12.41	50.34	<50	<29[1]	<67[1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.085	-
MW-4	**11/13/2013**	**62.75**	**11.98**	**50.77**	**<50**	**<31[6]**	**<73[1]**	**<0.5**	**<0.5**	**0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.085**	**-**
MW-5	06/28/2006	97.20	12.09	85.11	21,000	-	-	ND	14	290	920	-	-	-	-	-	-	-	-	-	-
MW-5	09/11/2006	97.20	13.63	83.57	2,500	-	-	ND	ND	34	60	-	-	-	-	-	-	-	-	-	-

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON

					HYDROCARBONS			PRIMARY VOCS													
Location	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	cPAHs
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-5	11/17/2006	97.20	10.57	86.63	23,000	-	-	ND	52	450	1,700	-	-	-	-	-	-	-	-	-	-
MW-5	12/01/2006	97.20	9.75	87.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	01/12/2007	97.20	10.85	86.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	02/12/2007	97.20	-	-	37,000	-	-	ND	33	1,600	2,800	-	-	-	-	-	-	-	-	-	-
MW-5	02/28/2007	97.20	11.05	86.15	29,000	-	-	ND	24	550	1,800	-	-	-	-	-	-	-	-	-	-
MW-5	03/07/2007	97.20	11.11	86.09	42,000	-	-	11	24	740	2,500	-	-	-	-	-	-	-	-	-	-
MW-5	04/11/2007	97.20	10.96	86.24	65,000	-	-	ND	79	850	4,000	-	-	-	-	-	-	-	-	-	-
MW-5	11/12/2009	97.20	12.10	85.10	2,340	-	-	1	36	<1.0	125	-	-	-	-	-	-	-	-	-	-
MW-5	08/31/2011	61.66	12.80	48.86	3,100	770	<67	2	1	72	124	<1	<1	<0.5	120	130	18	210	78	-	-
MW-5	12/15/2011	61.66	11.41	50.25	1,900	66	<67	1	0.9	24	33	<1	<1	<0.5	81	43	3	120	43	-	-
MW-5	02/06/2012	61.66	10.54	51.12	1,200	34	<68	0.8	<0.7	12	43	<1	<1	<0.5	37	31	6	55	21	-	-
MW-5	05/30/2012	61.66	10.91	50.75	260	54	<66	<0.5	<0.7	3	7	<1	<1	<0.5	12	4	<1	24	9	0.48	0.009168
MW-5	08/07/2012	61.66	11.39	50.27	610	190[4]	<66[4]	<0.5	<0.5	11	22	<0.5	<0.5	<0.5	21	33	12	32	13	5.1	-
MW-5	12/06/2012	61.66	9.74	51.92	170	40[4]	<76[4]	<0.5	<0.5	2	8	<0.5	<0.5	<0.5	8	3	<1	12	4	0.17	-
MW-5	02/27/2013	61.66	11.03	50.63	790	170[4]	<69[4]	<0.5	0.6	7	12	<0.5	<0.5	<0.5	25	9	1	42	19	0.76	-
MW-5	05/23/2013	61.66	10.90	50.76	360	64[4]	<67[4]	<0.5	<0.5	4	6	<0.5	<0.5	<0.5	25	4	<1	34	13	0.80	-
MW-5	08/30/2013	61.66	12.19	49.47	3,200	340[4]	<69[4]	0.7	1	49	89	<0.5	<0.5	<0.5	92	92	16	160	59	1.2	-
MW-5	**11/14/2013**	**61.66**	**11.64**	**50.02**	**2,000**	**240[4]**	**<75[4]**	**0.7**	**0.7**	**19**	**14**	**<0.5**	**<0.5**	**<0.5**	**54**	**6**	**<1**	**130**	**44**	**0.31**	**-**
MW-6	08/31/2011	58.03	12.33	45.70	<50	44	<67	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	1	<1	<1	<1	<1	-	-
MW-6	12/15/2011	58.03	12.09	45.94	<50	<29	<67	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-6	02/06/2012	58.03	11.80	46.23	<50	<29	<68	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-6	05/30/2012	58.03	12.03	46.00	<50	<29	<68	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	2.5	-
MW-6	08/07/2012	58.03	12.21	45.82	<50	<28[4]	<66[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.15	-
MW-6	12/06/2012	58.03	11.60	46.43	<50	<31[4]	<73[4]	<0.5	<0.5	1	6	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	1.1	-

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON

					HYDROCARBONS			PRIMARY VOCS													
Location	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	cPAHs
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-6	02/27/2013	58.03	11.77	46.26	<50	<30[4]	<70[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.68	-
MW-6	05/24/2013	58.03	11.91	46.12	<50	<30[4]	<70[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.20	-
MW-6	08/29/2013	58.03	12.21	45.82	<50	<28[4]	<66[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.087	-
MW-6	**11/14/2013**	**58.03**	**12.12**	**45.91**	**<50**	**<29[4]**	**<67[4]**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**	**0.15**	**-**
MW-7	08/31/2011	56.96	11.15	45.81	<50	<29	<67	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-7	12/15/2011	56.96	10.93	46.03	<50	45	89	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-7	02/06/2012	56.96	10.75	46.21	<50	<29	<68	<0.5	2	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-7	05/30/2012	56.96	10.93	46.03	<50	37	160	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	13.8	0.097
MW-7	08/07/2012	56.96	11.70	45.26	<50	<28[4]	<66[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	31.7	-
MW-7	12/06/2012	56.96	10.46	46.50	<50	<29[4]	<67[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	40.3	-
MW-7	02/27/2013	56.96	10.69	46.27	<50	<29[4]	<68[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	76.5	-
MW-7	05/24/2013	56.96	10.81	46.15	<50	<31[4]	<72[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	1.9	-
MW-7	08/29/2013	56.96	11.05	45.91	<50	<29[4]	<67[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	2.9	-
MW-7	**11/14/2013**	**56.96**	**10.96**	**46.00**	**<50**	**<29[4]**	**<67[4]**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**	**22.7**	**-**
MW-8	08/31/2011	61.71	12.01	49.70	4,400	240	<67	<0.5	<0.7	41	442	<1	<1	<0.5	33	500	130	26	11	-	-
MW-8	12/15/2011	61.71	11.25	50.46	8,100	96	<67	<0.5	<0.7	79	880	<1	<1	<0.5	72	900	230	46	20	-	-
MW-8	02/06/2012	61.71	10.00	51.71	13,000	290	<69	<1	<1	110	1,280	<2	<2	<1	89	1,400	450	36	18	-	-
MW-8	05/30/2012	61.71	10.69	51.02	9,500	700	<68	<1	<1	110	1,300	<2	<2	<1	96	1,100	310	59	28	7.1	0.007324
MW-8 DUP	05/30/2012	61.71	10.69	51.02	10,000	450	<66	<1	<1	110	1,300	<2	<2	<1	93	1,300	340	58	27	5.3	0.007248
MW-8	08/08/2012	61.71	11.30	50.41	9,300	290[4]	<66[4]	<1	<1	92	850	<1	<1	<1	73	910	190	49	22	3.4	-
MW-8 DUP	08/08/2012	61.71	11.30	50.41	11,000	240[4]	<66[4]	<1	<1	83	710	<1	<1	<1	67	680	140	44	20	3.6	-
MW-8	12/05/2012	61.71	9.61	52.10	13,000	2,600[4]	200[4]	<0.5	0.8	95	1,100	<0.5	<0.5	<0.5	93	1,400	380	61	27	27.6	-
MW-8 DUP	12/05/2012	61.71	9.61	52.10	12,000	2,600[4]	240[4]	<0.5	0.8	91	1,100	<0.5	<0.5	<0.5	91	1,400	360	58	26	27.4	-

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON

					HYDROCARBONS			PRIMARY VOCS														
Location	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	cPAHs
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-8	02/26/2013	61.71	10.71	51.00	12,000	780[4]	<70[4]	<0.5	0.6	100	800	<0.5	<0.5	<0.5	86	1,200	280	63	29	5.2	-
MW-8 DUP	02/26/2013	61.71	10.71	51.00	11,000	540[4]	<69[4]	<0.5	0.6	100	770	<0.5	<0.5	<0.5	72	1,100	280	60	29	5.3	-
MW-8	05/23/2013	61.71	10.87	50.84	6,800	380[4]	<68[4]	<0.5	<0.5	87	700	<0.5	<0.5	<0.5	86	1,200	190	62	25	4.0	-
MW-8 DUP	05/23/2013	61.71	10.87	50.84	7,000	380[4]	<68[4]	<0.5	0.5	100	810	<0.5	<0.5	<0.5	94	1,300	240	73	29	3.5	-
MW-8	08/29/2013	61.71	12.00	49.71	6,600	340[4]	<66[4]	<0.5	<0.5	60	450	<0.5	<0.5	<0.5	49	680	110	47	20	2.1	-
MW-8 DUP	08/30/2013	61.71	12.00	49.71	3,500	220[4]	<66[4]	<0.5	<0.5	47	350	<0.5	<0.5	<0.5	39	510	83	45	18	1.2	-
MW-8	**11/14/2013**	**61.71**	**11.52**	**50.19**	**8,900**	**390[4]**	**<67[4]**	**<0.5**	**0.5**	**79**	**740**	**<0.5**	**<0.5**	**<0.5**	**67**	**1,000**	**180**	**65**	**26**	**3.1**	**-**
MW-8 DUP	**11/14/2013**	**61.71**	**11.52**	**50.19**	**8,000**	**320[4]**	**<67[4]**	**<0.5**	**0.6**	**81**	**760**	**<0.5**	**<0.5**	**<0.5**	**66**	**1,100**	**180**	**65**	**27**	**3.2**	**-**
MW-9	08/31/2011	62.58	14.29	48.29	<50	78	<68	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-9	12/15/2011	62.58	13.01	49.57	<50	<29	<67	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-9	02/06/2012	62.58	12.04	50.54	66	<300	<700[1]	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-9	05/30/2012	52.58	12.53	40.05	66	<29	<67	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	0.31	0.007248
MW-9	08/08/2012	62.58	13.37	49.21	<50	<29[4]	<67[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.87	-
MW-9	12/05/2012	62.58	12.05	50.53	<50	39[4]	<69[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.33	-
MW-9	02/26/2013[5]	62.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-9	05/24/2013	62.58	13.05	49.53	100	<29[4]	<68[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.24	-
MW-9	08/29/2013	62.58	14.77	47.81	<50	51[4]	<66[4]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.085	-
MW-9	**11/13/2013**	**62.58**	**13.41**	**49.17**	**120**	**<29[4]**	**<67[4]**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**	**0.087**	**-**
MW-10	08/31/2011	58.96	11.94	47.02	<50	260	100	2	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
MW-10	12/15/2011	58.96	11.13	47.83	51	<28	<66	3	<0.7	<0.8	0.8	<1	<1	<0.5	<1	<1	<1	2	<1	-	-
MW-10	02/06/2012	58.96	10.44	48.52	<50[2]	<29	<68	1	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	3	1	-	-
MW-10	05/30/2012	58.96	10.77	48.19	<50	74	<66	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	0.46	0.007248
MW-10 DUP	05/30/2012	58.96	10.77	48.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.49	-

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON

					HYDROCARBONS			PRIMARY VOCS														
Location	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	cPAHs
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-10	08/07/2012	58.96	11.41	47.55	110	130[1]	<68[1]	1	<0.5	<0.5	1	<0.5	<0.5	<0.5	<1	<1	<1	10	4	<0.034	-
MW-10	12/06/2012	58.96	11.31	47.65	130	220[1]	<72[1]	3	0.6	<0.5	4	<0.5	<0.5	<0.5	<1	<1	<1	24	10	0.28	-
MW-10	02/27/2013	58.96	10.49	48.47	<50	71[1]	<69[1]	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	2	<1	<0.073	-
MW-10	05/24/2013	58.96	10.94	48.02	<50	<29[4]	<67[1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.073	-
MW-10	08/30/2013	58.96	12.13	46.83	<50	57[1]	<66[1]	0.8	<0.5	<0.5	1	<0.5	<0.5	<0.5	<1	<1	<1	3	1	0.10	-
MW-10	**11/13/2013**	**58.96**	**11.76**	**47.20**	**210**	**50[4]**	**<67[4]**	**2**	**<0.5**	**<0.5**	**3**	**<0.5**	**<0.5**	**<0.5**	**<1**	**1**	**<1**	**13**	**5**	**0.39**	**-**
Trip Blank	08/08/2012	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	-	-
Trip Blank	12/05/2012	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	-	-
Trip Blank	02/26/2013	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	-	-
Trip Blank	05/23/2013	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	08/29/2013	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	-	-
Trip Blank	**11/13/2013**	**-**	**-**	**-**	**<50**	**-**	**-**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Abbreviations and Notes

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

(ft-amsl) = Feet above mean sea level

ft = Feet

µg/L = Micrograms per liter

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-HRO = Total petroleum hydrocarbons - oil range organics

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER TIDEWATER SERVICE STATION
PHILLIPS 66 SITE 5173
CHEVRON SITE 301233
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON

					HYDROCARBONS			PRIMARY VOCS													
Location	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	cPAHs
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

VOCS = Volatile organic compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylene's (Total)

Xylenes = o-xylene + m,p-xylene

BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B; except the April 25, 1990 sample from EW-1 analyzed by EPA Method 8020

EDB = 1,2 Dibromoethane analyzed by EPA Method 8011

EDC = 1,2 Dichloroethane analyzed by EPA Method 8260B

MTBE = Methyl tert butyl ether

cPAHs = Carcinogenic Polycyclic Aromatic Hydrocarbons analyzed by EPA Method 8270c Selective Ion Monitoring

Total Lead analyzed by EPA Method 6020

-- = Not available / not applicable.1286

<x = Not detected above laboratory method detection limit.

1 Reporting limits were raised due to interference from the sample matrix. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

2 A preserved vial was submitted for analysis. However, the pH at the time of analysis was 4.

3 Well not sampled - well not found.

4 Analysis with silica-gel cleanup.

5 Inaccessible.

ATTACHMENT A

MONITORING DATA PACKAGE

WATER LEVEL RECORD

PROJECT NAME: TIDEWATER - MLK (SEATTLE) LOCATION: SEATTLE, WA

JOB NO.: 061992 - 2013 . 1 DATE: 11/13/13

CLIENT: P66 ENGINEER/GEOLOGIST: TM / NH

OBSERVATION WELL	TOP OF CASING ELEVATION A		DEPTH TO WATER B		WATER LEVEL ELEVATION A-B	
	feet	metres	feet	metres	feet	metres
MW-1			11.79			
MW-2			11.69			
MW-3			11.59			
MW-4			11.98			
MW-5			11.64			
MW-6			12.12			
MW-7			10.96			
MW-8			11.52			
MW-9			13.41			
MW-10			~~13.7~~ 11.76			

CRA

Former Tidewater Site
Seattle, WA

Water Quality Meter S/N: _____

Date: 11/13/13

Location: MW4
Name of Sampler: N. Hinsperger
Weather: CLEAR

QA/QC
MS/MSD _____
Duplicate _____
Blank _____

Depth to Water: 11.98
Depth to Bottom: _____

Sample Depth: _____

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
x Location ID

GW- 111313 - NH - MW 4

QA/QC Sample ID
(GW-mmddyy-AA-XXX)

_____

Sample Method: Low Flow
Purge Start: 13:47
Sample Time: 15:30

1 Well Volume: _____
3 Well Volumes: _____

water column height(ft) X
0.162(2" casing)

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) v 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
13:54	6.17	0.767	337.0	7.14	15.1	-119	0.0	0.49		0.150	12.08	CLEAR
13:59	6.14	0.762	227.0	5.71	15.3	-121	0.0	0.49		0.150	12.21	"
14:04	6.16	0.760	197.0	4.75	15.4	-122	0.0	0.49		0.150	12.25	"
14:09	6.17	0.759	168.0	4.65	15.4	-122	0.0	0.49		0.150	12.27	"
14:14	6.18	0.758	123.0	4.54	15.4	-124	0.0	0.49		0.150	12.30	"

Analysis:

Groundwater		**Preservative**
GRO	✓	HCL
DRO	✓	HCL
VOCs	✓	HCL
SVOCs	✓	
Total Lead	✓	

Signed _____

Notes:

Former Tidewater Site
Seattle, WA

Water Quality Meter S/N: _____

Date: 11/13/13

Location: MW 1
Name of Sampler: N. Hinspeages
Weather: CLEAR

Depth to Water: 11.62
Depth to Bottom: _____

Sample Depth: _____

QA/QC
MS/MSD _____
Duplicate _____
Blank _____

QA/QC Sample ID
(GW-mmddyy-AA-XXX)
_____

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
x Location ID

GW- 111313 - NH - MW 1

water column height(ft) X
0.162(2" casing)

Sample Method: Low Flow
Purge Start: 12:10
Sample Time: 13:30

1 Well Volume: _____
3 Well Volumes: _____

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) v 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
12:19	6.28	0.666	5.0	5.54	15.0	-129	0.0	0.42		0.150	11.85	TURBID
12:24	6.18	0.633	318.0	4.95	15.2	-96	0.0	0.40		0.150	11.97	CLEARING
12:29	6.14	0.616	144.0	4.73	15.6	-79	0.0	0.39		0.150	12.05	" "
12:34	6.12	0.603	87.0	4.62	15.9	-56	0.0	0.39		0.150	12.10	" "
12:39	6.05	0.606	68.3	4.64	16.1	-37	0.0	0.39		0.150	12.13	" "
12:44	6.03	0.621	57.6	4.73	15.6	-26	0.0	0.40		0.150	12.18	" "
12:49	6.02	0.614	70.9	4.72	15.5	-25	0.0	0.39		0.150	12.20	" "
12:54	6.01	06.13	265.0	4.70	15.4	-24	0.6	0.39		0.150	12.22	" "

Analysis:
Groundwater
GRO ✓
DRO ✓
VOCs ✓
SVOCs ✓
Total Lead ✓

Preservative
HCL
HCL
HCL

Signed _____

Notes:

Former Tidewater Site
Seattle, WA

Water Quality Meter S/N: _____

Date: 11/13/13

Location: MW9
Name of Sampler: D. Limpenger
Weather: Overcast
Depth to Water: 13.43
Depth to Bottom: _____

Sample Depth: _____

QA/QC
MS/MSD _____
Duplicate _____
Blank _____

QA/QC Sample ID
(GW-mmddyy-AA-XXX)
_____

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
x Location ID

GW- 111313 - NH - MW9

Sample Method: Low Flow
Purge Start: 10:42
Sample Time: 12:00

1 Well Volume: _____
3 Well Volumes: _____

water column height(ft) X 0.162(2" casing)

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) v 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
10:51	6.16	0.863	5.0	7.05	13.8	-94	0.0	0.55		0.150	13.60	TURBID
10:56	6.40	0.861	405.0	6.83	13.9	-111	0.0	0.55		0.150	13.61	"
11:01	6.54	0.859	114.0	6.67	13.9	-118	0.0	0.55		0.150	13.63	"
11:06	6.53	0.856	162.0	6.56	14.0	-124	0.0	0.55		0.150	13.66	CLEARING
11:11	6.58	0.849	48.1	6.40	14.0	-126	0.0	0.50		0.150	13.69	"

Analysis:

Groundwater		Preservative
GRO	✓	HCL
DRO	✓	HCL
VOCs	✓	HCL
SVOCs	✓	
Total Lead	✓	

Signed _____

Notes:

Former Tidewater Site
Seattle, WA

Water Quality Meter S/N: _____

Date: 11/14/13

Location: MW8
Name of Sampler: N. Wespeger
Weather: RAIN

Depth to Water: 11.42
Depth to Bottom: _____

Sample Depth: _____

QA/QC
MS/MSD _____
Duplicate ✓
Blank _____

QA/QC Sample ID
(GW-mmddyy-AA-XXX)
_____

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
x Location ID

GW- 111413-NW-MW8
GW - 111413 - NW - FD1

Sample Method: Low Flow
Purge Start: 11:41
Sample Time: 13:00

1 Well Volume: _____
3 Well Volumes: _____

water column height(ft) X
0.162(2" casing)

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
~~11:48~~	~~5.94~~	~~0.705~~	~~230.0~~	~~4.66~~	~~14.8~~						~~11.41~~	
~~11:53~~												
~~11:58~~												
~~12:03~~												
11:58	5.94	0.705	230.0	4.66	14.8	-99	0.0	0.45		0.150	11.41	CLEARING
12:03	5.97	0.696	144.0	4.10	15.0	-98	0.0	0.45		0.150	11.82	"
12:08	5.96	0.693	142.0	3.95	15.0	-97	0.0	0.44		0.150	11.82	"
12:13	5.96	0.692	135.0	3.72	15.0	-97	0.0	0.44		0.150	11.82	"

Analysis:

Groundwater		**Preservative**
GRO	✓	HCL
DRO	✓	HCL
VOCs	✓	HCL
SVOCs	✓	
Total Lead	✓	

Signed _____

Notes:

Former Tidewater Site
Seattle, WA

Water Quality Meter S/N: _____

Date: 11/14/13

Location: MW 5
Name of Sampler: N. Hinspeger
Weather: RAIN

Depth to Water: 11.61
Depth to Bottom: _____

Sample Depth: _____

QA/QC
MS/MSD ✓
Duplicate _____
Blank _____

QA/QC Sample ID
(GW-mmddyy-AA-XXX)
_____

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
x Location ID

GW- 111413 - NH - MW 5

Sample Method: Low Flow
Purge Start: 9:14
Sample Time: 10:30

1 Well Volume: _____
3 Well Volumes: _____

water column height(ft) X
0.162(2" casing)

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
9:19	6.18	0.652	195.6	7.64	13.3	-92	0.0	0.42		0.150	11.61	CLEAR
9:24	6.00	0.645	191.0	4.95	13.9	-84	0.0	0.41		0.150	11.61	" "
9:29	5.94	0.638	177.0	4.69	14.7	-80	0.0	0.41		0.150	11.61	" "
9:34	5.93	0.621	179.0	4.91	14.9	-79	0.0	0.40		0.150	11.61	" "
9:39	5.92	0.613	171.0	4.89	15.0	-79	0.0	0.39		0.150	11.61	" "

Analysis:

Groundwater		**Preservative**
GRO	✓	HCL
DRO	✓	HCL
VOCs	✓	HCL
SVOCs	✓	
Total Lead	✓	

Signed _____

Notes:

Former Tidewater Site
Seattle, WA

Date: 11/13/13

Water Quality Meter S/N: NF04793

Location: MW-10
Name of Sampler: T Mullen
Weather: Cool and cloudy

Depth to Water: 11.54 ft
Depth to Bottom: 20.01 ft
Sample Depth: ~14 ft

QA/QC	
MS/MSD	
Duplicate	
Blank	
QA/QC Sample ID (GW-mmddyy-AA-XXX)	

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
x Location ID

GW- 001992-111313-TM-MW-10

Sample Method: Low Flow
Purge Start: 1110
Sample Time: 1200

1 Well Volume: 1.08 gal
3 Well Volumes: 3.24 gal
water column height(ft) X .162(2" casing)

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
												11.54 ft DTW
1110												
1120	6.52	2.84	207	5.08	16.71	-116	0.1	1.9				11.75 ft DTW Clear
1125	6.68	3.21	41.5	7.22	16.83	-121	0.2	2.0				11.68 ft DTW
1130	6.88	2.99	74.4	8.25	16.26	-127	0.1	1.9				11.62 ft DTW
1135	7.06	2.96	148	8.34	16.15	-138	0.1	1.8				11.59 ft DTW
1140	6.65	8.67	213	5.35	17.15	-96	0.5	5.2				11.57 ft DTW
1145	6.47	18.6	45.9	3.37	16.99	-100	1.2	12				11.54 ft DTW
1150	6.47	18.5	111	3.40	16.85	-100	1.1	11				11.54 ft DTW
1155	6.47	18.5	38.9	3.39	16.90	-100	1.1	11				
1200 Sample												

Analysis:
Groundwater

		Preservative
GRO		HCL
DRO		HCL
VOCs		HCL
SVOCs		
Total Lead		

Signed TM

Notes:
@ 140 mL/min
Water level meter malfunctioning
Use water level record for DTW

Former Tidewater Site
Seattle, WA

Water Quality Meter S/N: NT-042293

Date: 11/13/13

Location: MW-2
Name of Sampler: T. Mullan
Weather: Cloudy and cool

Depth to Water: 11.69 Ft
Depth to Bottom: 20.01 Ft

Sample Depth: ~14 Ft

QA/QC
MS/MSD
Duplicate
Blank

QA/QC Sample ID
(GW-mmddyy-AA-XXX)

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
X Location ID

GW- 061912 - 111313 - TM - MW-2

Sample Method: Low Flow
Purge Start: 1245
Sample Time: 1345

1 Well Volume: 0.96
3 Well Volumes: 2.88

water column height(ft) X 0.162(2" casing)

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
1245	Start Purge											Clear
1310	6.25	8.48	875	0.42	16.10	-62	0.5	5.2			11.69 Ft	
1315	6.19	32.0	814	0.41	15.95	-64	2.0	20				
1320	6.19	32.2	489	0.38	15.99	-64	2.0	20				
1325	6.18	28.3	40.0	0.33	16.09	-66	1.7	17				
1330	6.18	24.5	38.5	0.30	16.07	-67	1.5	15				
1335	6.17	21.7	19.9	0.30	16.04	-68	1.3	13				
1340	6.18	16.0	17.5	0.24	16.02	-70	0.9	10			11.69 Ft	
1345	Sample											

Analysis:

Groundwater		Preservative
GRO		HCL
DRO		HCL
VOCs		HCL
SVOCs		
Total Lead		

Signed TM

Notes:
140 mL/min
Water level meter broken use other meter for before and after DTW

Former Tidewater Site
Seattle, WA

Water Quality Meter S/N: NF04293

Date: 11/13/13

Location: MW-3
Name of Sampler: T. Mullin
Weather: Cloudy and cool

Depth to Water: 11.54 ft
Depth to Bottom:

Sample Depth: ~14 ft

QA/QC	
MS/MSD	
Duplicate	
Blank	
QA/QC Sample ID (GW-mmddyy-AA-XXX)	

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
x Location ID

GW- 061992-111313-TM-MW-3

Sample Method: Low flow
Purge Start: 1420
Sample Time: 1455

1 Well Volume: 1.36
3 Well Volumes: 4

water column height(ft) X 0.162(2" casing)

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
1420												Start purge Clear
1430	6.04	1.89	41.0	0.97	16.08	-4	0.1	1.5			11.54	Odor (mild hyd.)
1435	6.04	2.96	21.4	1.04	16.10	-5	0.1	0.2			11.80	Odor diminishing
1440	6.05	5.34	15.7	0.9	16.09	-19	0.3	3.4			12.10	↓
1445	6.05	5.30	17.0	0.42	15.96	-48	0.3	3.3			12.31	↓
1450	6.14	4.97	12.9	0.35	16.01	-63	0.3	0.1			12.32	↓
1455	Sample											

Analysis:
Groundwater

		Preservative
GRO		HCL
DRO		HCL
VOCs		HCL
SVOCs		
Total Lead		

Notes:
140 mL/min
Water level meter may be bad (replaced battery)

Signed TM

Former Tidewater Site
Seattle, WA

Water Quality Meter S/N: NF042293

Date: 11/14/13

Location: MW-10
Name of Sampler: Tom Mullin
Weather: Showers and cool

Depth to Water: 12.10
Depth to Bottom: 20.25

Sample Depth: 12 14 ft

QA/QC
MS/MSD
Duplicate
Blank

QA/QC Sample ID
(GW-mmddyy-AA-XXX)

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
x Location ID

GW- 061992 - 111413 - TM - MW-10

water column height(ft) X 0.162(2" casing)

Sample Method: Low Flow
Purge Start: 0940
Sample Time: 1030

1 Well Volume: 1.28
3 Well Volumes: 3.84

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
0940		34	purge								12.10	start purge, Brown cloudy w
0950	6.40	4.37	38.3	0.49	17.13	-123	0.2	2.9			12.15	clear, no odor
0955	6.41	7.45	27.6	6.47	17.34	-126	1.4	5.0			12.16	↓
1000	6.44	20.3	21.8	0.54	17.39	-129	1.2	1.2			12.16	Clear
1005	6.45	20.6	15.3	0.52	17.40	-131	1.3	13			12.15	"
1010	6.47	20.3	17.8	0.55	17.48	-133	1.2	1.3			12.15	"
1015	6.49	19.9	17.0	0.50	17.32	-134	1.2	12			12.15	"
1020	6.50	18.3	12.8	0.54	17.29	-135	1.1	11			12.15	"
1025	6.50	18.2	11.1	0.55	17.21	-134	1.1	8.3			12.15	
1030	Sample				Sample	@	1030					
1035	Sample											
1040												
1045												

Analysis:
Groundwater
GRO
DRO
VOCs
SVOCs
Total Lead

Preservative
HCL
HCL
HCL

Signed TM

Notes:
minimal drawdown
Readjust tubing to mid ft intake
140 mL/min

Former Tidewater Site
Seattle, WA

Water Quality Meter S/N: NF04293

Date: 11/14/13

Location: MW-7
Name of Sampler: Tom Mullin
Weather: Showers and cool

Depth to Water: 10.95 Ft
Depth to Bottom: 20.05 Ft

Sample Depth: ~13 Ft

QA/QC
MS/MSD
Duplicate
Blank

QA/QC Sample ID
(GW-mmddyy-AA-XXX)

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials
x Location ID

GW- 061992-111413-TM-MW-7

Sample Method: Low flow
Purge Start: 1140
Sample Time: 1230

1 Well Volume: 1.44
3 Well Volumes: 4.32

water column height(ft) X 0.162(2" casing)

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
1140											10.95	Start purge
												Gray/brown silty
1150	6.58	7.53	136	0.55	17.01	-84	0.4	4.8			10.98	Clear, no odor
1155	6.52	7.70	148	0.43	17.22	-68	0.4	4.9			10.98	Clear
1200	6.50	8.49	89.9	0.36	17.09	-64	0.5	5.3			10.97	Clear
1205	6.48	8.76	68.6	0.35	17.12	-62	0.5	5.6			10.96	Clear
1210	6.48	8.41	44.5	0.32	17.20	-62	0.5	5.3			10.96	Clear
1215	6.48	8.20	39.5	0.29	17.23	-61	0.5	5.2			10.95	Clear
1220	6.47	7.87	32.3	0.29	17.26	-61	0.4	4.9			10.95	Clear
1225	6.47	7.53	24.2	0.30	17.16	-60	0.4	4.7			10.95	Clear
1230	Sample											

Analysis:

Groundwater		Preservative
GRO		HCL
DRO		HCL
VOCs		HCL
SVOCs		
Total Lead		

Signed TM

Notes:

40 mL/vial

Field Calibration Sheet: HORIBA U-20XD series Multimeter

pH, Conductivity, Turbidity, Dissolved Oxygen, Temperature, Salinity, Total Dissolved Solids, and ORP

DATE	11/13/13				
PROJECT NAME	TIDEWATER - MLK				
PROJECT #	061992	PHASE	2013.1	TASK	
Unit Control #		NFO 3550			

TIME 9:55

PAGE 1 of 1

Auto Calibration

1 Place some of the pH 4 standard AutoCal solution into the calibration cup.
2 Wash the sensors in distilled water several times
3 Immerse the sensors into the solution and wait several minutes for the reading to stabilize.
4 Press the CAL button once while in the pH measurement mode. Look for the AUTO and CAL functions to appear in the LCD display
5 Press ENT to start the auto calibration. The sensors must remain within the calibration solution during this time.
The auto cal process is complete when END is displayed
6 Press MEAS to return to measurement mode
7 Cycle through the 5 parameters being calibrated and record the readings in the following table:
8 Repeat as necessary

	AUTO 4 CALIBRATION				
Time	pH	Cond	Turb	DO	Temp
9:55	3.92	4.57	0.8	11.04	11.7

Manual 2 point pH calibration

1 After the AutoCal procedure, rinse the sensors with distilled water several times.
2 Place pH 7.0 buffer solution into another calibration cup. If only one calibration cup is available, completely wash the cup with distilled water several times.
3 Immerse the sensor into the solution and wait several minutes for the reading to stabilize.
4 Press the CAL button twice while in the pH measurement mode. Look for the MAN, ZERO and CAL functions to appear in the LCD display
5 Use the UP/DOWN keys to adjust the pH value for temperature variations using the table at the end of this sheet
6 Press the ENT key to start the calibration. The measured value and the DATA IN will blink until the calibration finishes.
7 When the values stop flashing record the pH reading being displayed.
8 Remove the sensors and rinse several tims with distilled water.
9 Place pH 10.0 buffer solution into another calibration cup. If only one calibration cup is available, completely wash the cup with distilled water several times.
10 Immerse the sensors into the solution and wait several minutes for the reading to stabilize.
11 Press the CAL button once. Look for the MAN, SPAN and CAL functions to appear in the LCD display
12 Use the UP/DOWN keys to adjust the pH value for temperature variations using the table at the end of this sheet
13 Press the ENT key to start the calibration. The measured value and the DATA IN will blink until the calibration finishes.
14 When the values stop flashing record the pH reading being displayed.
15 Press the MEAS button to return to the measurement mode.

pH Calibration Buffer Temperature Adjustment Table				
Temperature Celsius	pH 4 Phthalate	pH 7 N. phosphat	pH 9 Borate	pH 10
0	4.01	6.98	9.46	
5	4.01	6.95	9.39	
10	4.00	6.92	9.33	10.18
15	4.00	6.90	9.27	10.14
20	4.00	6.88	9.22	10.06
25	4.01	6.86	9.18	10.00
30	4.01	6.85	9.14	9.95
35	4.02	6.84	9.10	9.91
40	4.03	6.84	9.07	9.85
45	4.04	6.84	9.04	

	MANUAL CALIBRATION			
Time	pH 7	pH 9	pH 10	Temp

Midday and as needed calibration check record

Time	Temperature	pH 4	pH 7	pH 9	pH 10	Initials

SIGNATURE [signature] NAME N. Winspear DATE 11/13/13

CHAIN OF CUSTODY RECORD

COC NO.: 38444

PAGE 1 OF ___

(See Reverse Side for Instructions)

CONESTOGA-ROVERS & ASSOCIATES

Address: 732 BROADWAY TACOMA, WA. 98402

Phone: 253.573.1218 Fax: 253.573.1663

Project No/ Phase/Task Code: 061992-2013.1	Laboratory Name: LANCASTER	Lab Location: LANCASTER, PA.	SSOW ID:
Project Name: TIDEWATER-MLK	Lab Contact: N. LUCIANO	Lab Quote No:	Cooler No:
Project Location: SEATTLE, WA.			Carrier:
Chemistry Contact: M. DAVIS / J. GOMO			Airbill No:
Sampler(s): T. MULLIN / N. WINSPERGER			Date Shipped:

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	GRO	DRO + SG	VOC's 8260	SVOC's [redacted]	TOTAL Pb	BTEX						MS/MSD Request	Comments/ Special Instructions
1	GW-111313-NN-MW9	11/13/13	12:00	WG	G		X	X						11	X	X	X	X	X								
2	GW-111313-NN-MW1	11/13/13	13:30	WG	G		X	X						11	X	X	X	X	X								
3	GW-111313-NN-MW4	11/13/13	15:30	WG	G		X	X						11	X	X	X	X	X								
4	GW-111413-NN-MW5	11/14/13	10:30	WG	G		X	X						32	X	X	X	X	X							X	MS/MSD
5	GW-111413-NN-MW8	11/14/13	12:00	WG	G		X	X						9	X	X	X	X	X								
6	GW-111413-NN-FD1	11/14/13		WG	G		X	X						9	X	X	X	X	X								
7	GW-061992-111313-TM-MW-11	11/13/13	1200	WG	G		X	X						11	X	X	X	X	X								
8	GW-061992-111313-TM-MW-2	"	1345	WG	G		X	X						11	X	X	X	X	X								
9	GW-061992-111313-TM-MW-3	"	1455	WG	G		X	X						11	X	X	X	X	X								
10	GW-061992-111413-TM-MW-6	11/14/13	1030	WG	G		X	X						11	X	X	X	X	X								
11	GW-061992-111413-TM-MW-7	"	1230	WG	G		X	X						11	X	X	X	X	X								
12	TRIP BLANKS													4	X				X								
13																											
14																											
15																											

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☑ Other: STANDARD

Total Number of Containers: 143

All Samples in Cooler must be on COC

Notes/ Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	CRA	11/14/13	16:00	1.			
2.				2.			
3.				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

November 30, 2013

Project: 301233 Tidewater Seattle

Submittal Date: 11/15/2013
Group Number: 1434393
PO Number: 4058681
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
GW-111313-NH-MW9 Grab Groundwater	7279444
GW-111313-NH-MW1 Grab Groundwater	7279445
GW-111313-NH-MW4 Grab Groundwater	7279446
GW-111413-NH-MW5 Grab Groundwater	7279447
GW-111413-NH-MW5 MS Grab Groundwater	7279448
GW-111413-NH-MW5 MSD Grab Groundwater	7279449
GW-111413-NH-MW8 Grab Groundwater	7279450
GW-111413-NH-FD1 Grab Groundwater	7279451
GW-111313-TM-MW-10 Grab Groundwater	7279452
GW-111313-TM-MW-2 Grab Groundwater	7279453
GW-111313-TM-MW-3 Grab Groundwater	7279454
GW-111413-TM-MW-6 Grab Groundwater	7279455
GW-111413-TM-MW-7 Grab Groundwater	7279456
TRIP BLANK Water	7279457

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	CRA	Attn: Edwin Turner
ELECTRONIC COPY TO	Conestoga-Rovers & Associates	Attn: Jeffrey Cloud
ELECTRONIC COPY TO	Conestoga-Rovers & Associates	Attn: Matt Davis
ELECTRONIC COPY TO	Chevron	Attn: Anna Avina
ELECTRONIC COPY TO	Chevron c/o CRA	Attn: Report Contact

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Respectfully Submitted,

Natalie R Luciano
Senior Specialist

(717) 556-7258

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: GW-111313-NH-MW9 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279444
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 12:00 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	0.9	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	130	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111313-NH-MW9 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279444
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 12:00 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	150	0.8	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	120	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	8	1	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.010	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	120	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	0.087	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: GW-111313-NH-MW9 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279444
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 12:00 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/19/2013 21:56	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/19/2013 21:56	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 06:40	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 15:03	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 15:03	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/20/2013 21:45	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:31	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

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Analysis Report

Sample Description: GW-111313-NH-MW1 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279445
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 13:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	15	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111313-NH-MW1 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279445
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 13:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	7	0.8	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	6	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	1	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	32	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	74	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	0.15	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: GW-111313-NH-MW1 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279445
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 13:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/19/2013 22:20	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/19/2013 22:20	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 07:07	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 15:28	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 15:28	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/20/2013 22:07	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:33	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

Sample Description: GW-111313-NH-MW4 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279446
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 15:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	0.5	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111313-NH-MW4 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279446
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 15:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.8	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	N.D.	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	1	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	31	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	73	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: GW-111313-NH-MW4 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279446
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 15:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/19/2013 23:09	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/19/2013 23:09	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 07:35	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 16:19	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 16:19	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/20/2013 22:28	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:38	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

Sample Description: GW-111413-NH-MW5 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279447
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	0.7	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	13	1	1
10335	sec-Butylbenzene	135-98-8	10	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	19	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	44	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	54	1	1
10335	n-Propylbenzene	103-65-1	130	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111413-NH-MW5 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279447
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.8	1
10335	Toluene	108-88-3	0.7	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	N.D.	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	6	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	1	1
10335	m+p-Xylene	179601-23-1	13	0.5	1
10335	o-Xylene	95-47-6	1	0.5	1
10335	Xylene (Total)	1330-20-7	14	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	0.011	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	9.0	0.10	10
08357	2-Methylnaphthalene	91-57-6	8.0	0.10	10
08357	Naphthalene	91-20-3	44	0.30	10
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	2,000	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	240	32	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	75	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	0.31	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: GW-111413-NH-MW5 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279447
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/19/2013 23:33	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/19/2013 23:33	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 08:56	Brian K Graham	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/21/2013 18:29	Chad A Moline	10
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 16:44	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 16:44	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/20/2013 22:50	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:21	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

Sample Description: GW-111413-NH-MW5 MS Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279448
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	110	6	1
10335	Benzene	71-43-2	21	0.5	1
10335	Bromobenzene	108-86-1	20	1	1
10335	Bromochloromethane	74-97-5	19	1	1
10335	Bromodichloromethane	75-27-4	18	1	1
10335	Bromoform	75-25-2	16	1	1
10335	Bromomethane	74-83-9	18	1	1
10335	2-Butanone	78-93-3	97	3	1
10335	n-Butylbenzene	104-51-8	37	1	1
10335	sec-Butylbenzene	135-98-8	34	1	1
10335	tert-Butylbenzene	98-06-6	23	1	1
10335	Carbon Disulfide	75-15-0	21	1	1
10335	Carbon Tetrachloride	56-23-5	18	1	1
10335	Chlorobenzene	108-90-7	21	0.8	1
10335	Chloroethane	75-00-3	20	1	1
10335	Chloroform	67-66-3	21	0.8	1
10335	Chloromethane	74-87-3	19	1	1
10335	2-Chlorotoluene	95-49-8	22	1	1
10335	4-Chlorotoluene	106-43-4	21	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	14	2	1
10335	Dibromochloromethane	124-48-1	18	1	1
10335	1,2-Dibromoethane	106-93-4	18	0.5	1
10335	Dibromomethane	74-95-3	17	1	1
10335	1,2-Dichlorobenzene	95-50-1	21	1	1
10335	1,3-Dichlorobenzene	541-73-1	22	1	1
10335	1,4-Dichlorobenzene	106-46-7	21	1	1
10335	Dichlorodifluoromethane	75-71-8	20	2	1
10335	1,1-Dichloroethane	75-34-3	20	1	1
10335	1,2-Dichloroethane	107-06-2	16	0.5	1
10335	1,1-Dichloroethene	75-35-4	22	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	21	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	22	0.8	1
10335	1,2-Dichloropropane	78-87-5	21	1	1
10335	1,3-Dichloropropane	142-28-9	19	1	1
10335	2,2-Dichloropropane	594-20-7	18	1	1
10335	1,1-Dichloropropene	563-58-6	20	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	20	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	17	1	1
10335	Ethylbenzene	100-41-4	41	0.5	1
10335	Hexachlorobutadiene	87-68-3	21	2	1
10335	2-Hexanone	591-78-6	69	3	1
10335	Isopropylbenzene	98-82-8	66	1	1
10335	p-Isopropyltoluene	99-87-6	24	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	17	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	68	3	1
10335	Methylene Chloride	75-09-2	22	2	1
10335	Naphthalene	91-20-3	77	1	1
10335	n-Propylbenzene	103-65-1	150	1	1
10335	Styrene	100-42-5	21	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	19	1	1

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Analysis Report

Sample Description: GW-111413-NH-MW5 MS Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279448
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1,2,2-Tetrachloroethane	79-34-5	19	1	1
10335	Tetrachloroethene	127-18-4	22	0.8	1
10335	Toluene	108-88-3	22	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	21	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	22	1	1
10335	1,1,1-Trichloroethane	71-55-6	17	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	22	0.8	1
10335	Trichloroethene	79-01-6	21	1	1
10335	Trichlorofluoromethane	75-69-4	19	2	1
10335	1,2,3-Trichloropropane	96-18-4	16	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	30	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	23	1	1
10335	Vinyl Chloride	75-01-4	21	1	1
10335	m+p-Xylene	179601-23-1	58	0.5	1
10335	o-Xylene	95-47-6	22	0.5	1
10335	Xylene (Total)	1330-20-7	80	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	3,300	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
02211	DRO C12-C24 w/Si Gel	n.a.	1,600	31	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	73	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/19/2013 23:56	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/19/2013 23:56	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 17:09	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 17:09	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/21/2013 01:00	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1

Sample Description: GW-111413-NH-MW5 MSD Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279449
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	100	6	1
10335	Benzene	71-43-2	22	0.5	1
10335	Bromobenzene	108-86-1	20	1	1
10335	Bromochloromethane	74-97-5	18	1	1
10335	Bromodichloromethane	75-27-4	18	1	1
10335	Bromoform	75-25-2	16	1	1
10335	Bromomethane	74-83-9	19	1	1
10335	2-Butanone	78-93-3	97	3	1
10335	n-Butylbenzene	104-51-8	37	1	1
10335	sec-Butylbenzene	135-98-8	34	1	1
10335	tert-Butylbenzene	98-06-6	23	1	1
10335	Carbon Disulfide	75-15-0	21	1	1
10335	Carbon Tetrachloride	56-23-5	18	1	1
10335	Chlorobenzene	108-90-7	21	0.8	1
10335	Chloroethane	75-00-3	20	1	1
10335	Chloroform	67-66-3	21	0.8	1
10335	Chloromethane	74-87-3	19	1	1
10335	2-Chlorotoluene	95-49-8	22	1	1
10335	4-Chlorotoluene	106-43-4	22	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	14	2	1
10335	Dibromochloromethane	124-48-1	18	1	1
10335	1,2-Dibromoethane	106-93-4	18	0.5	1
10335	Dibromomethane	74-95-3	17	1	1
10335	1,2-Dichlorobenzene	95-50-1	22	1	1
10335	1,3-Dichlorobenzene	541-73-1	22	1	1
10335	1,4-Dichlorobenzene	106-46-7	21	1	1
10335	Dichlorodifluoromethane	75-71-8	20	2	1
10335	1,1-Dichloroethane	75-34-3	20	1	1
10335	1,2-Dichloroethane	107-06-2	16	0.5	1
10335	1,1-Dichloroethene	75-35-4	22	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	21	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	22	0.8	1
10335	1,2-Dichloropropane	78-87-5	22	1	1
10335	1,3-Dichloropropane	142-28-9	19	1	1
10335	2,2-Dichloropropane	594-20-7	18	1	1
10335	1,1-Dichloropropene	563-58-6	21	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	20	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	18	1	1
10335	Ethylbenzene	100-41-4	42	0.5	1
10335	Hexachlorobutadiene	87-68-3	22	2	1
10335	2-Hexanone	591-78-6	70	3	1
10335	Isopropylbenzene	98-82-8	66	1	1
10335	p-Isopropyltoluene	99-87-6	24	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	17	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	68	3	1
10335	Methylene Chloride	75-09-2	22	2	1
10335	Naphthalene	91-20-3	75	1	1
10335	n-Propylbenzene	103-65-1	150	1	1
10335	Styrene	100-42-5	21	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	19	1	1

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Analysis Report

Sample Description: GW-111413-NH-MW5 MSD Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279449
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	19	1	1
10335	Tetrachloroethene	127-18-4	22	0.8	1
10335	Toluene	108-88-3	22	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	21	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	22	1	1
10335	1,1,1-Trichloroethane	71-55-6	17	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	23	0.8	1
10335	Trichloroethene	79-01-6	22	1	1
10335	Trichlorofluoromethane	75-69-4	19	2	1
10335	1,2,3-Trichloropropane	96-18-4	17	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	33	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	23	1	1
10335	Vinyl Chloride	75-01-4	21	1	1
10335	m+p-Xylene	179601-23-1	60	0.5	1
10335	o-Xylene	95-47-6	22	0.5	1
10335	Xylene (Total)	1330-20-7	82	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	3,200	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	1,500	30	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	70	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/20/2013 00:20	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/20/2013 00:20	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 17:34	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 17:34	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/21/2013 01:22	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1

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Analysis Report

Sample Description: GW-111413-NH-MW8 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279450
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 13:00 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	17	1	1
10335	sec-Butylbenzene	135-98-8	11	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	3	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	79	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	26	1	1
10335	p-Isopropyltoluene	99-87-6	7	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	67	1	1
10335	n-Propylbenzene	103-65-1	65	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111413-NH-MW8 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279450
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 13:00 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.8	1
10335	Toluene	108-88-3	0.5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	N.D.	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	1,000	10	10
10335	1,3,5-Trimethylbenzene	108-67-8	180	1	1
10335	Vinyl Chloride	75-01-4	N.D.	1	1
10335	m+p-Xylene	179601-23-1	580	0.5	1
10335	o-Xylene	95-47-6	160	0.5	1
10335	Xylene (Total)	1330-20-7	740	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	15	0.10	10
08357	2-Methylnaphthalene	91-57-6	21	0.10	10
08357	Naphthalene	91-20-3	47	0.30	10
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	8,900	250	5
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	390	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	3.1	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: GW-111413-NH-MW8 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279450
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 13:00 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/20/2013 00:44	Brett W Kenyon	1
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/20/2013 01:08	Brett W Kenyon	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/20/2013 00:44	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W133232AA	11/20/2013 01:08	Brett W Kenyon	10
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 09:23	Brian K Graham	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/21/2013 18:56	Chad A Moline	10
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 23:06	Marie D Beamenderfer	5
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 23:06	Marie D Beamenderfer	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/20/2013 23:12	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:39	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

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Analysis Report

Sample Description: GW-111413-NH-FD1 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279451
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLKFD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	17	1	1
10335	sec-Butylbenzene	135-98-8	11	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	3	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	81	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	27	1	1
10335	p-Isopropyltoluene	99-87-6	8	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	66	1	1
10335	n-Propylbenzene	103-65-1	65	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111413-NH-FD1 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279451
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLKFD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.8	1
10335	Toluene	108-88-3	0.6	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	N.D.	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	1,100	10	10
10335	1,3,5-Trimethylbenzene	108-67-8	180	1	1
10335	Vinyl Chloride	75-01-4	N.D.	1	1
10335	m+p-Xylene	179601-23-1	590	0.5	1
10335	o-Xylene	95-47-6	160	0.5	1
10335	Xylene (Total)	1330-20-7	760	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	20	0.10	10
08357	2-Methylnaphthalene	91-57-6	29	0.10	10
08357	Naphthalene	91-20-3	61	0.30	10
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	8,000	250	5
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	320	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	3.2	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: GW-111413-NH-FD1 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279451
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 by NH

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLKFD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/20/2013 01:32	Brett W Kenyon	1
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/20/2013 01:56	Brett W Kenyon	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/20/2013 01:32	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W133232AA	11/20/2013 01:56	Brett W Kenyon	10
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 09:50	Brian K Graham	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/21/2013 19:23	Chad A Moline	10
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 23:31	Marie D Beamenderfer	5
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 23:31	Marie D Beamenderfer	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/20/2013 23:33	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:41	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

Sample Description: GW-111313-TM-MW-10 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279452
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 12:00 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	2	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	1	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	5	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	13	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111313-TM-MW-10 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279452
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 12:00 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.8	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	N.D.	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	1	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	30	1	1
10335	m+p-Xylene	179601-23-1	2	0.5	1
10335	o-Xylene	95-47-6	0.6	0.5	1
10335	Xylene (Total)	1330-20-7	3	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	0.65	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.30	0.010	1
08357	Naphthalene	91-20-3	0.23	0.030	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	210	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
02211	DRO C12-C24 w/Si Gel	n.a.	50	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
Metals	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.39	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: GW-111313-TM-MW-10 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279452
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 12:00 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/20/2013 02:20	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/20/2013 02:20	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 10:17	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 22:16	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 22:16	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/20/2013 23:55	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:43	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

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Analysis Report

Sample Description: GW-111313-TM-MW-2 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279453
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 13:45 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	1	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	5	1	1
10335	sec-Butylbenzene	135-98-8	6	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	21	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	48	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111313-TM-MW-2 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279453
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 13:45 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.8	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	N.D.	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	1	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	0.37	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.063	0.010	1
08357	Naphthalene	91-20-3	0.38	0.030	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	700	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	160	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	0.14	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: GW-111313-TM-MW-2 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279453
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 13:45 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/20/2013 02:44	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/20/2013 02:44	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 10:44	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 19:15	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 19:15	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/21/2013 00:17	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:44	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

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Analysis Report

Sample Description: GW-111313-TM-MW-3 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279454
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 14:55 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	12	1	1
10335	sec-Butylbenzene	135-98-8	9	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	5	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	33	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	31	1	1
10335	p-Isopropyltoluene	99-87-6	4	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	20	1	1
10335	n-Propylbenzene	103-65-1	86	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111313-TM-MW-3 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279454
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 14:55 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.8	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	N.D.	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	440	10	10
10335	1,3,5-Trimethylbenzene	108-67-8	23	1	1
10335	Vinyl Chloride	75-01-4	1	1	1
10335	m+p-Xylene	179601-23-1	110	0.5	1
10335	o-Xylene	95-47-6	9	0.5	1
10335	Xylene (Total)	1330-20-7	120	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	5.4	0.010	1
08357	2-Methylnaphthalene	91-57-6	4.3	0.010	1
08357	Naphthalene	91-20-3	19	0.30	10
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	3,100	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	120	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	0.30	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: GW-111313-TM-MW-3 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279454
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013 14:55 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/20/2013 03:08	Brett W Kenyon	1
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133242AA	11/21/2013 00:41	Christopher G Torres	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/20/2013 03:08	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W133242AA	11/21/2013 00:41	Christopher G Torres	10
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 11:11	Brian K Graham	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/21/2013 19:50	Chad A Moline	10
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 19:40	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 19:40	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133220017A	11/21/2013 00:38	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133220017A	11/18/2013 22:00	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:46	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

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Analysis Report

Sample Description: GW-111413-TM-MW-6 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279455
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111413-TM-MW-6 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279455
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.8	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	N.D.	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	1	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	0.15	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: GW-111413-TM-MW-6 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279455
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 10:30 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133242AA	11/20/2013 21:30	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133242AA	11/20/2013 21:30	Christopher G Torres	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 11:38	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 20:05	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 20:05	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133260027A	11/27/2013 00:03	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133260027A	11/23/2013 07:15	Kelli M Barto	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:48	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

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Analysis Report

Sample Description: GW-111413-TM-MW-7 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279456
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 12:30 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	1	1
10335	Bromoform	75-25-2	N.D.	1	1
10335	Bromomethane	74-83-9	N.D.	1	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.8	1
10335	Chloroethane	75-00-3	N.D.	1	1
10335	Chloroform	67-66-3	N.D.	0.8	1
10335	Chloromethane	74-87-3	N.D.	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10335	cis-1,2-Dichloroethene	156-59-2	12	0.8	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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Analysis Report

Sample Description: GW-111413-TM-MW-7 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279456
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 12:30 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10335	Tetrachloroethene	127-18-4	4	0.8	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10335	Trichloroethene	79-01-6	5	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	2	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	3	1	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	
08357	Benzo(a)anthracene	56-55-3	0.42	0.010	1
08357	Benzo(a)pyrene	50-32-8	0.28	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	0.60	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	0.24	0.010	1
08357	Chrysene	218-01-9	1.2	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	0.033	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.16	0.010	1
08357	1-Methylnaphthalene	90-12-0	0.021	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.029	0.010	1
08357	Naphthalene	91-20-3	0.044	0.030	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:
target compounds were not detected in the re-extraction except for chrysene at .04 ug/l

GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
Metals	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	22.7	0.085	1

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Analysis Report

Sample Description: GW-111413-TM-MW-7 Grab Groundwater
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279456
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/14/2013 12:30 by TM

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLK07

General Sample Comments

State of Washington Lab Certification No. C457
Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	W133232AA	11/20/2013 03:55	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W133232AA	11/20/2013 03:55	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13320WAZ026	11/20/2013 12:05	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13320WAZ026	11/17/2013 13:00	David S Schrum	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 20:30	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 20:30	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	133260027A	11/26/2013 23:41	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	133260027A	11/23/2013 07:15	Kelli M Barto	1
06035	Lead	SW-846 6020	1	133266050003A	11/29/2013 18:50	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	133266050003	11/24/2013 08:09	James L Mertz	1

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Analysis Report

Sample Description: TRIP BLANK Water
MLK Tidewater Site
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7279457
LL Group # 1434393
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 11/13/2013

Submitted: 11/15/2013 09:30
Reported: 11/30/2013 11:19

Conestoga-Rovers & Associates
Suite 190
20818 44th Ave W
Lynnwood WA 98036

MLKTB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F133282AA	11/24/2013 17:54	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133282AA	11/24/2013 17:54	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13325A07A	11/22/2013 11:41	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A07A	11/22/2013 11:41	Marie D Beamenderfer	1

Quality Control Summary

Client Name: Conestoga-Rovers & Associates
Reported: 11/30/13 at 11:19 AM

Group Number: 1434393

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F133282AA	Sample number(s): 7279457							
Benzene	N.D.	0.5	ug/l	92		78-120		
Ethylbenzene	N.D.	0.5	ug/l	87		79-120		
Toluene	N.D.	0.5	ug/l	88		80-120		
Xylene (Total)	N.D.	0.5	ug/l	88		80-120		
Batch number: W133232AA	Sample number(s): 7279444-7279454,7279456							
Acetone	N.D.	6.	ug/l	70		38-157		
Benzene	N.D.	0.5	ug/l	96		78-120		
Bromobenzene	N.D.	1.	ug/l	95		80-120		
Bromochloromethane	N.D.	1.	ug/l	89		80-121		
Bromodichloromethane	N.D.	1.	ug/l	85		73-120		
Bromoform	N.D.	1.	ug/l	76		61-120		
Bromomethane	N.D.	1.	ug/l	89		51-120		
2-Butanone	N.D.	3.	ug/l	66		58-126		
n-Butylbenzene	N.D.	1.	ug/l	105		80-120		
sec-Butylbenzene	N.D.	1.	ug/l	107		80-120		
tert-Butylbenzene	N.D.	1.	ug/l	99		80-120		
Carbon Disulfide	N.D.	1.	ug/l	91		58-126		
Carbon Tetrachloride	N.D.	1.	ug/l	80		74-130		
Chlorobenzene	N.D.	0.8	ug/l	97		80-120		
Chloroethane	N.D.	1.	ug/l	94		45-120		
Chloroform	N.D.	0.8	ug/l	88		77-122		
Chloromethane	N.D.	1.	ug/l	87		55-120		
2-Chlorotoluene	N.D.	1.	ug/l	99		80-120		
4-Chlorotoluene	N.D.	1.	ug/l	98		80-120		
1,2-Dibromo-3-chloropropane	N.D.	2.	ug/l	61		56-120		
Dibromochloromethane	N.D.	1.	ug/l	87		72-120		
1,2-Dibromoethane	N.D.	0.5	ug/l	88		76-120		
Dibromomethane	N.D.	1.	ug/l	87		80-120		
1,2-Dichlorobenzene	N.D.	1.	ug/l	99		80-120		
1,3-Dichlorobenzene	N.D.	1.	ug/l	102		80-120		
1,4-Dichlorobenzene	N.D.	1.	ug/l	99		80-120		
Dichlorodifluoromethane	N.D.	2.	ug/l	82		35-122		
1,1-Dichloroethane	N.D.	1.	ug/l	89		80-120		
1,2-Dichloroethane	N.D.	0.5	ug/l	78		71-130		
1,1-Dichloroethene	N.D.	0.8	ug/l	95		76-124		
cis-1,2-Dichloroethene	N.D.	0.8	ug/l	95		80-120		
trans-1,2-Dichloroethene	N.D.	0.8	ug/l	98		80-120		
1,2-Dichloropropane	N.D.	1.	ug/l	96		80-120		
1,3-Dichloropropane	N.D.	1.	ug/l	90		80-120		
2,2-Dichloropropane	N.D.	1.	ug/l	80		67-124		
1,1-Dichloropropene	N.D.	1.	ug/l	91		80-120		
cis-1,3-Dichloropropene	N.D.	1.	ug/l	93		80-120		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Conestoga-Rovers & Associates

Group Number: 1434393

Reported: 11/30/13 at 11:19 AM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
trans-1,3-Dichloropropene	N.D.	1.	ug/l	82		69-120		
Ethylbenzene	N.D.	0.5	ug/l	93		79-120		
Hexachlorobutadiene	N.D.	2.	ug/l	91		50-133		
2-Hexanone	N.D.	3.	ug/l	66		59-125		
Isopropylbenzene	N.D.	1.	ug/l	96		77-120		
p-Isopropyltoluene	N.D.	1.	ug/l	104		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	84		75-120		
4-Methyl-2-pentanone	N.D.	3.	ug/l	66		59-120		
Methylene Chloride	N.D.	2.	ug/l	97		80-120		
Naphthalene	N.D.	1.	ug/l	75		47-126		
n-Propylbenzene	N.D.	1.	ug/l	102		80-120		
Styrene	N.D.	1.	ug/l	98		80-120		
1,1,1,2-Tetrachloroethane	N.D.	1.	ug/l	90		80-120		
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l	91		70-120		
Tetrachloroethene	N.D.	0.8	ug/l	97		80-120		
Toluene	N.D.	0.5	ug/l	96		80-120		
1,2,3-Trichlorobenzene	N.D.	1.	ug/l	88		58-126		
1,2,4-Trichlorobenzene	N.D.	1.	ug/l	89		65-120		
1,1,1-Trichloroethane	N.D.	0.8	ug/l	78		66-126		
1,1,2-Trichloroethane	N.D.	0.8	ug/l	93		80-120		
Trichloroethene	N.D.	1.	ug/l	95		80-120		
Trichlorofluoromethane	N.D.	2.	ug/l	79		65-130		
1,2,3-Trichloropropane	N.D.	1.	ug/l	81		76-120		
1,2,4-Trimethylbenzene	N.D.	1.	ug/l	101		74-120		
1,3,5-Trimethylbenzene	N.D.	1.	ug/l	101		74-120		
Vinyl Chloride	N.D.	1.	ug/l	92		63-120		
m+p-Xylene	N.D.	0.5	ug/l	95		80-120		
o-Xylene	N.D.	0.5	ug/l	96		80-120		
Xylene (Total)	N.D.	0.5	ug/l	95		80-120		
Batch number: W133242AA	Sample number(s): 7279454-7279455							
Acetone	N.D.	6.	ug/l	67		38-157		
Benzene	N.D.	0.5	ug/l	97		78-120		
Bromobenzene	N.D.	1.	ug/l	98		80-120		
Bromochloromethane	N.D.	1.	ug/l	88		80-121		
Bromodichloromethane	N.D.	1.	ug/l	86		73-120		
Bromoform	N.D.	1.	ug/l	80		61-120		
Bromomethane	N.D.	1.	ug/l	87		51-120		
2-Butanone	N.D.	3.	ug/l	62		58-126		
n-Butylbenzene	N.D.	1.	ug/l	108		80-120		
sec-Butylbenzene	N.D.	1.	ug/l	110		80-120		
tert-Butylbenzene	N.D.	1.	ug/l	107		80-120		
Carbon Disulfide	N.D.	1.	ug/l	93		58-126		
Carbon Tetrachloride	N.D.	1.	ug/l	82		74-130		
Chlorobenzene	N.D.	0.8	ug/l	100		80-120		
Chloroethane	N.D.	1.	ug/l	91		45-120		
Chloroform	N.D.	0.8	ug/l	90		77-122		
Chloromethane	N.D.	1.	ug/l	87		55-120		
2-Chlorotoluene	N.D.	1.	ug/l	102		80-120		
4-Chlorotoluene	N.D.	1.	ug/l	103		80-120		
1,2-Dibromo-3-chloropropane	N.D.	2.	ug/l	63		56-120		
Dibromochloromethane	N.D.	1.	ug/l	91		72-120		
1,2-Dibromoethane	N.D.	0.5	ug/l	90		76-120		
Dibromomethane	N.D.	1.	ug/l	85		80-120		
1,2-Dichlorobenzene	N.D.	1.	ug/l	103		80-120		
1,3-Dichlorobenzene	N.D.	1.	ug/l	104		80-120		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Conestoga-Rovers & Associates

Group Number: 1434393

Reported: 11/30/13 at 11:19 AM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,4-Dichlorobenzene	N.D.	1.	ug/l	104		80-120		
Dichlorodifluoromethane	N.D.	2.	ug/l	75		35-122		
1,1-Dichloroethane	N.D.	1.	ug/l	91		80-120		
1,2-Dichloroethane	N.D.	0.5	ug/l	79		71-130		
1,1-Dichloroethene	N.D.	0.8	ug/l	98		76-124		
cis-1,2-Dichloroethene	N.D.	0.8	ug/l	96		80-120		
trans-1,2-Dichloroethene	N.D.	0.8	ug/l	99		80-120		
1,2-Dichloropropane	N.D.	1.	ug/l	96		80-120		
1,3-Dichloropropane	N.D.	1.	ug/l	94		80-120		
2,2-Dichloropropane	N.D.	1.	ug/l	77		67-124		
1,1-Dichloropropene	N.D.	1.	ug/l	94		80-120		
cis-1,3-Dichloropropene	N.D.	1.	ug/l	92		80-120		
trans-1,3-Dichloropropene	N.D.	1.	ug/l	84		69-120		
Ethylbenzene	N.D.	0.5	ug/l	97		79-120		
Hexachlorobutadiene	N.D.	2.	ug/l	90		50-133		
2-Hexanone	N.D.	3.	ug/l	67		59-125		
Isopropylbenzene	N.D.	1.	ug/l	99		77-120		
p-Isopropyltoluene	N.D.	1.	ug/l	107		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	84		75-120		
4-Methyl-2-pentanone	N.D.	3.	ug/l	65		59-120		
Methylene Chloride	N.D.	2.	ug/l	100		80-120		
Naphthalene	N.D.	1.	ug/l	75		47-126		
n-Propylbenzene	N.D.	1.	ug/l	107		80-120		
Styrene	N.D.	1.	ug/l	101		80-120		
1,1,1,2-Tetrachloroethane	N.D.	1.	ug/l	93		80-120		
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l	95		70-120		
Tetrachloroethene	N.D.	0.8	ug/l	100		80-120		
Toluene	N.D.	0.5	ug/l	101		80-120		
1,2,3-Trichlorobenzene	N.D.	1.	ug/l	90		58-126		
1,2,4-Trichlorobenzene	N.D.	1.	ug/l	92		65-120		
1,1,1-Trichloroethane	N.D.	0.8	ug/l	88		66-126		
1,1,2-Trichloroethane	N.D.	0.8	ug/l	95		80-120		
Trichloroethene	N.D.	1.	ug/l	96		80-120		
Trichlorofluoromethane	N.D.	2.	ug/l	76		65-130		
1,2,3-Trichloropropane	N.D.	1.	ug/l	84		76-120		
1,2,4-Trimethylbenzene	N.D.	1.	ug/l	104		74-120		
1,3,5-Trimethylbenzene	N.D.	1.	ug/l	105		74-120		
Vinyl Chloride	N.D.	1.	ug/l	89		63-120		
m+p-Xylene	N.D.	0.5	ug/l	98		80-120		
o-Xylene	N.D.	0.5	ug/l	98		80-120		
Xylene (Total)	N.D.	0.5	ug/l	98		80-120		
Batch number: 13320WAZ026	Sample number(s): 7279444-7279447,7279450-7279456							
Benzo(a)anthracene	N.D.	0.010	ug/l	95	91	73-127	5	30
Benzo(a)pyrene	N.D.	0.010	ug/l	93	93	72-120	1	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	109	106	79-136	3	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	96	96	73-131	0	30
Chrysene	N.D.	0.010	ug/l	94	95	76-125	1	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	77	99	58-131	25	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	85	99	62-130	15	30
1-Methylnaphthalene	N.D.	0.010	ug/l	109	107	80-126	2	30
2-Methylnaphthalene	N.D.	0.010	ug/l	119	119	81-124	0	30
Naphthalene	N.D.	0.030	ug/l	101	97	75-120	4	30
Batch number: 13325A07A	Sample number(s): 7279444-7279457							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	107		75-135		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Conestoga-Rovers & Associates Group Number: 1434393
Reported: 11/30/13 at 11:19 AM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 133220017A	Sample number(s): 7279444-7279454							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	81		32-117		
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 133260027A	Sample number(s): 7279455-7279456							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	84	84	32-117	1	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 133266050003A	Sample number(s): 7279444-7279447,7279450-7279456							
Lead	N.D.	0.085	ug/l	97		90-110		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F133282AA	Sample number(s): 7279457 UNSPK: P279422								
Benzene	95	96	72-134	0	30				
Ethylbenzene	93	92	71-134	1	30				
Toluene	93	92	80-125	0	30				
Xylene (Total)	94	92	79-125	2	30				
Batch number: W133232AA	Sample number(s): 7279444-7279454,7279456 UNSPK: 7279447								
Acetone	70	70	35-144	1	30				
Benzene	103	104	72-134	1	30				
Bromobenzene	102	101	82-115	1	30				
Bromochloromethane	93	91	76-134	3	30				
Bromodichloromethane	92	92	38-137	0	30				
Bromoform	81	80	48-118	0	30				
Bromomethane	91	93	47-129	1	30				
2-Butanone	65	65	53-124	0	30				
n-Butylbenzene	122	122	74-134	0	30				
sec-Butylbenzene	122	123	79-125	1	30				
tert-Butylbenzene	113	115	81-121	1	30				
Carbon Disulfide	104	105	53-149	1	30				
Carbon Tetrachloride	91	92	72-135	1	30				
Chlorobenzene	104	106	87-124	2	30				
Chloroethane	100	98	51-145	2	30				
Chloroform	103	104	81-134	1	30				
Chloromethane	95	97	50-131	2	30				
2-Chlorotoluene	108	109	82-118	2	30				
4-Chlorotoluene	106	109	84-122	3	30				
1,2-Dibromo-3-chloropropane	72	68	54-134	5	30				
Dibromochloromethane	92	92	74-116	0	30				
1,2-Dibromoethane	91	92	77-116	1	30				
Dibromomethane	86	86	83-119	0	30				
1,2-Dichlorobenzene	107	108	84-119	0	30				
1,3-Dichlorobenzene	111	110	86-121	1	30				
1,4-Dichlorobenzene	107	107	85-121	0	30				
Dichlorodifluoromethane	102	98	52-129	4	30				

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Conestoga-Rovers & Associates Group Number: 1434393
Reported: 11/30/13 at 11:19 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1-Dichloroethane	99	99	84-129	0	30				
1,2-Dichloroethane	81	82	68-131	2	30				
1,1-Dichloroethene	109	109	75-155	0	30				
cis-1,2-Dichloroethene	105	104	80-141	1	30				
trans-1,2-Dichloroethene	108	109	81-142	1	30				
1,2-Dichloropropane	107	109	83-124	2	30				
1,3-Dichloropropane	93	95	81-120	2	30				
2,2-Dichloropropane	88	91	69-135	3	30				
1,1-Dichloropropene	102	105	86-137	3	30				
cis-1,3-Dichloropropene	99	98	70-116	1	30				
trans-1,3-Dichloropropene	86	88	74-119	2	30				
Ethylbenzene	112	116	71-134	2	30				
Hexachlorobutadiene	107	111	56-134	4	30				
2-Hexanone	69	70	55-127	2	30				
Isopropylbenzene	107	106	75-128	0	30				
p-Isopropyltoluene	119	122	76-123	3	30				
Methyl Tertiary Butyl Ether	85	86	72-126	1	30				
4-Methyl-2-pentanone	68	68	63-123	1	30				
Methylene Chloride	112	112	78-133	1	30				
Naphthalene	115	105	52-125	3	30				
n-Propylbenzene	98 (2)	91 (2)	74-134	1	30				
Styrene	106	107	78-125	1	30				
1,1,1,2-Tetrachloroethane	96	96	74-136	0	30				
1,1,2,2-Tetrachloroethane	94	97	72-128	3	30				
Tetrachloroethene	108	109	80-128	0	30				
Toluene	105	108	80-125	2	30				
1,2,3-Trichlorobenzene	104	107	50-138	3	30				
1,2,4-Trichlorobenzene	108	110	56-137	1	30				
1,1,1-Trichloroethane	86	86	69-140	0	30				
1,1,2-Trichloroethane	112	113	71-141	1	30				
Trichloroethene	105	108	88-133	3	30				
Trichlorofluoromethane	95	95	64-146	0	30				
1,2,3-Trichloropropane	82	84	76-118	3	30				
1,2,4-Trimethylbenzene	125	136*	72-130	7	30				
1,3,5-Trimethylbenzene	116	117	65-132	1	30				
Vinyl Chloride	107	107	66-133	0	30				
m+p-Xylene	113	117	79-125	3	30				
o-Xylene	104	105	79-125	1	30				
Xylene (Total)	110	113	79-125	3	30				
Batch number: W133242AA	Sample number(s): 7279454-7279455 UNSPK: P283595								
Acetone	65	67	35-144	4	30				
Benzene	99	103	72-134	4	30				
Bromobenzene	99	102	82-115	3	30				
Bromochloromethane	90	97	76-134	7	30				
Bromodichloromethane	83	89	38-137	7	30				
Bromoform	74	80	48-118	7	30				
Bromomethane	91	99	47-129	8	30				
2-Butanone	59	64	53-124	7	30				
n-Butylbenzene	114	119	74-134	4	30				
sec-Butylbenzene	114	120	79-125	6	30				
tert-Butylbenzene	107	109	81-121	1	30				

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Conestoga-Rovers & Associates

Group Number: 1434393

Reported: 11/30/13 at 11:19 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Carbon Disulfide	99	104	53-149	6	30				
Carbon Tetrachloride	88	94	72-135	7	30				
Chlorobenzene	98	104	87-124	5	30				
Chloroethane	96	106	51-145	10	30				
Chloroform	90	95	81-134	5	30				
Chloromethane	89	100	50-131	11	30				
2-Chlorotoluene	104	105	82-118	1	30				
4-Chlorotoluene	101	106	84-122	5	30				
1,2-Dibromo-3-chloropropane	59	61	54-134	4	30				
Dibromochloromethane	86	95	74-116	10	30				
1,2-Dibromoethane	83	91	77-116	9	30				
Dibromomethane	82*	88	83-119	7	30				
1,2-Dichlorobenzene	101	106	84-119	4	30				
1,3-Dichlorobenzene	103	109	86-121	5	30				
1,4-Dichlorobenzene	101	105	85-121	4	30				
Dichlorodifluoromethane	91	100	52-129	9	30				
1,1-Dichloroethane	92	98	84-129	7	30				
1,2-Dichloroethane	79	82	68-131	4	30				
1,1-Dichloroethene	107	111	75-155	4	30				
cis-1,2-Dichloroethene	96	103	80-141	6	30				
trans-1,2-Dichloroethene	103	109	81-142	6	30				
1,2-Dichloropropane	95	102	83-124	8	30				
1,3-Dichloropropane	90	94	81-120	5	30				
2,2-Dichloropropane	85	92	69-135	8	30				
1,1-Dichloropropene	95	104	86-137	9	30				
cis-1,3-Dichloropropene	90	97	70-116	7	30				
trans-1,3-Dichloropropene	80	86	74-119	7	30				
Ethylbenzene	96	105	71-134	9	30				
Hexachlorobutadiene	101	106	56-134	5	30				
2-Hexanone	61	65	55-127	6	30				
Isopropylbenzene	100	108	75-128	7	30				
p-Isopropyltoluene	110	114	76-123	3	30				
Methyl Tertiary Butyl Ether	79	86	72-126	8	30				
4-Methyl-2-pentanone	60*	64	63-123	6	30				
Methylene Chloride	97	102	78-133	6	30				
Naphthalene	72	75	52-125	4	30				
n-Propylbenzene	110	113	74-134	3	30				
Styrene	97	105	78-125	7	30				
1,1,1,2-Tetrachloroethane	92	94	74-136	3	30				
1,1,2,2-Tetrachloroethane	87	91	72-128	4	30				
Tetrachloroethene	104	110	80-128	6	30				
Toluene	101	108	80-125	7	30				
1,2,3-Trichlorobenzene	87	92	50-138	5	30				
1,2,4-Trichlorobenzene	90	95	56-137	5	30				
1,1,1-Trichloroethane	91	99	69-140	8	30				
1,1,2-Trichloroethane	92	97	71-141	6	30				
Trichloroethene	101	108	88-133	6	30				
Trichlorofluoromethane	89	97	64-146	8	30				
1,2,3-Trichloropropane	78	82	76-118	5	30				
1,2,4-Trimethylbenzene	102	108	72-130	6	30				
1,3,5-Trimethylbenzene	108	109	65-132	1	30				
Vinyl Chloride	98	107	66-133	9	30				

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Conestoga-Rovers & Associates
Reported: 11/30/13 at 11:19 AM

Group Number: 1434393

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
m+p-Xylene	98	105	79-125	7	30				
o-Xylene	98	105	79-125	6	30				
Xylene (Total)	98	105	79-125	7	30				
Batch number: 13325A07A	Sample number(s): 7279444-7279457 UNSPK: 7279447								
NWTPH-Gx water C7-C12	123	111	75-135	4	30				
Batch number: 133220017A	Sample number(s): 7279444-7279454 UNSPK: 7279447								
DRO C12-C24 w/Si Gel	81	79	60-120	5	20				
Batch number: 133266050003A	Sample number(s): 7279444-7279447,7279450-7279456 UNSPK: 7279447 BKG: 7279447								
Lead	97	99	89-120	2	20	0.31	0.25	24* (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST VOCs by 8260B - Water
Batch number: F133282AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7279457	105	99	97	95
Blank	104	101	99	96
LCS	103	102	98	96
MS	104	102	98	98
MSD	103	105	98	95
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 8260 Ext. Water Master w/GRO
Batch number: W133232AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7279444	96	98	100	91
7279445	96	101	100	91
7279446	93	101	100	91
7279447	94	100	101	97
7279448	94	97	100	97
7279449	94	95	102	98
7279450	93	100	99	98
7279451	94	100	101	98
7279452	93	100	102	94
7279453	93	94	102	95
7279454	94	97	100	95
7279456	93	99	100	92
Blank	94	101	99	91
LCS	94	102	102	97
MS	94	97	100	97

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Conestoga-Rovers & Associates
Reported: 11/30/13 at 11:19 AM

Group Number: 1434393

Surrogate Quality Control

MSD	94	95	102	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 8260 Ext. Water Master w/GRO
Batch number: W133242AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7279455	95	98	98	90
Blank	95	100	99	90
LCS	95	100	103	99
MS	93	95	100	97
MSD	94	100	102	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PAHs in waters by SIM
Batch number: 13320WAZ026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7279444	99	99	96
7279445	100	94	97
7279446	101	97	99
7279447	98	100	104
7279450	87	95	97
7279451	88	97	102
7279452	97	87	95
7279453	91	89	98
7279454	91	100	94
7279455	99	92	97
7279456	66	40*	92
Blank	88	87	87
LCS	98	94	98
LCSD	91	92	92
Limits:	44-137	62-141	51-136

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13325A07A

	Trifluorotoluene-F
7279444	107
7279445	99
7279446	101
7279447	141*
7279448	132
7279449	145*
7279450	112
7279451	111
7279452	110
7279453	71
7279454	139*
7279455	98
7279456	98
7279457	97

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Conestoga-Rovers & Associates
Group Number: 1434393
Reported: 11/30/13 at 11:19 AM

Surrogate Quality Control

Blank	96
LCS	113
MS	132
MSD	145*
Limits:	63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 133220017A

	Orthoterphenyl
7279444	112
7279445	106
7279446	106
7279447	113
7279448	107
7279449	106
7279450	109
7279451	106
7279452	106
7279453	87
7279454	105
Blank	108
LCS	109
MS	107
MSD	106
Limits:	50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 133260027A

	Orthoterphenyl
7279455	105
7279456	115
Blank	104
LCS	120
LCSD	114
Limits:	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

CHAIN OF CUSTODY RECORD

COC NO.: 38444

PAGE 1 OF ___

(See Reverse Side for Instructions)

CONESTOGA-ROVERS & ASSOCIATES

Address: 732 BROADWAY . TACOMA, WA . 98402

Phone: 253.573.1218 Fax: 253.573.1663

Project No/ Phase/Task Code: 061992-2013.1	**Laboratory Name:** LANCASTER	**Lab Location:** LANCASTER, PA.	**SSOW ID:**
Project Name: TIDEWATER-MLK	**Lab Contact:** N. LUCIANO	**Lab Quote No:**	**Cooler No:**
Project Location: SEATTLE, WA.			**Carrier:**
Chemistry Contact: M. DAVIS / J. GOND			**Airbill No:**
Sampler(s): T. MULLIN / N. WINSPERGER			**Date Shipped:**

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd//yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	GRO	DRO + SG	VOC's 8260	SVOC's [redacted]	TOTAL PB	BTEX					MS/MSD Request	Comments/ Special Instructions:
1	GW-111313-NN-MW9	11/13/13	12:00	WG	G		X	X						11	X	X	X	X	X							
2	GW-111313-NN-MW1	11/13/13	13:30	WG	G		X	X						11	X	X	X	X	X							
3	GW-111313-NN-MW4	11/13/13	15:30	WG	G		X	X						11	X	X	X	X	X							
4	GW-111413-NN-MW5	11/14/13	10:30	WG	G		X	X						32	X	X	X	X	X						X	MS/MSD
5	GW-111413-NN-MW8	11/14/13	13:00	WG	G		X	X						9	X	X	X	X	X							
6	GW-111413-NN-FB1	11/14/13		WG	G		X	X						9	X	X	X	X	X							
7	GW-061992-111313-TM-MW10	11/13/13	1200	WG	G		X	X						11	X	X	X	X	X							
8	GW-061992-111313-TM-MW2	"	1345	WG	G		X	X						11	X	X	X	X	X							
9	GW-061992-111313-TM-MW3	"	1455	WG	G		X	X						11	X	X	X	X	X							
10	GW-061992-111413-TM-MW6	11/14/13	1030	WG	G		X	X						11	X	X	X	X	X							
11	GW-061992-111413-TM-MW7	"	1230	WG	G		X	X						11	X	X	X	X	X							
12	TRIP BLANKS													4	X					X						
13																										
14																										
15																										

Page 50 of 53

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☒ Other: STANDARD

Total Number of Containers: 143

All Samples in Cooler must be on COC

Notes/ Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1. [signature]	CRA	11/14/13	16:00	1.			
2.				2.			
3.				3. [signature]	ELLE	11/15/13	930

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)

L# 1434393

Natalie R. Luciano

From: Cloud, Jeffrey [jcloud@craworld.com]
Sent: Tuesday, November 19, 2013 4:03 PM
To: Natalie R. Luciano; Mullin, Tim
Subject: RE: Tidewater Sites - Submittal Questions

Hi Natalie,

You are correct on both counts. Please proceed with sgc and cPAHs.

J

Jeffrey A Cloud
Conestoga-Rovers & Associates (CRA)

From: Natalie R. Luciano [mailto:NLuciano@lancasterlabs.com]
Sent: Tuesday, November 19, 2013 5:56 AM
To: Cloud, Jeffrey; Mullin, Tim
Subject: Tidewater Sites - Submittal Questions
Importance: High

Good morning,

We received some samples from Tidewater sites on Friday.

- A waste sample for McMinnville came in. The DRO requested on the COC was not NWTPH-Dx (DRO/HRO) with silica gel as per the SSOW (attached). The COC was marked for DRO/ORO without mention of silica gel. I followed the SSOW for analysis of NWTPH-Dx with quick silica gel cleanup. Please confirm as hold time is approaching.
- The COC for MLK in Seattle had SVOCs listed instead of the cPAHs as per the SSOW. I followed the SSOW and previous submittals to report the cPAHs including Naphthalenes. Please confirm.

Thank you,
Natalie Luciano
Senior Specialist, Environmental Client Services

Eurofins Lancaster Laboratories
Environmtental, LLC
2425 New Holland Pike
Lancaster, PA 17601
USA
Phone: +1 717-556-7258
Fax: +1 717-656-6766

Website: www.LancasterLabsEnv.com

Holiday Business Hours:

G# 1434393

For Thanksgiving, the laboratory will be closed on November 28 & 29, 2013.

Please contact us prior to submitting short holding time samples over the holiday so we can ensure personnel will be available. Staff will be present to accept samples on Nov 29th and 30th, but lab couriers will not be available for pickup or delivery on Nov 28th or 29th nor will commercial carriers be delivering on Nov 28th.

eurofins | Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

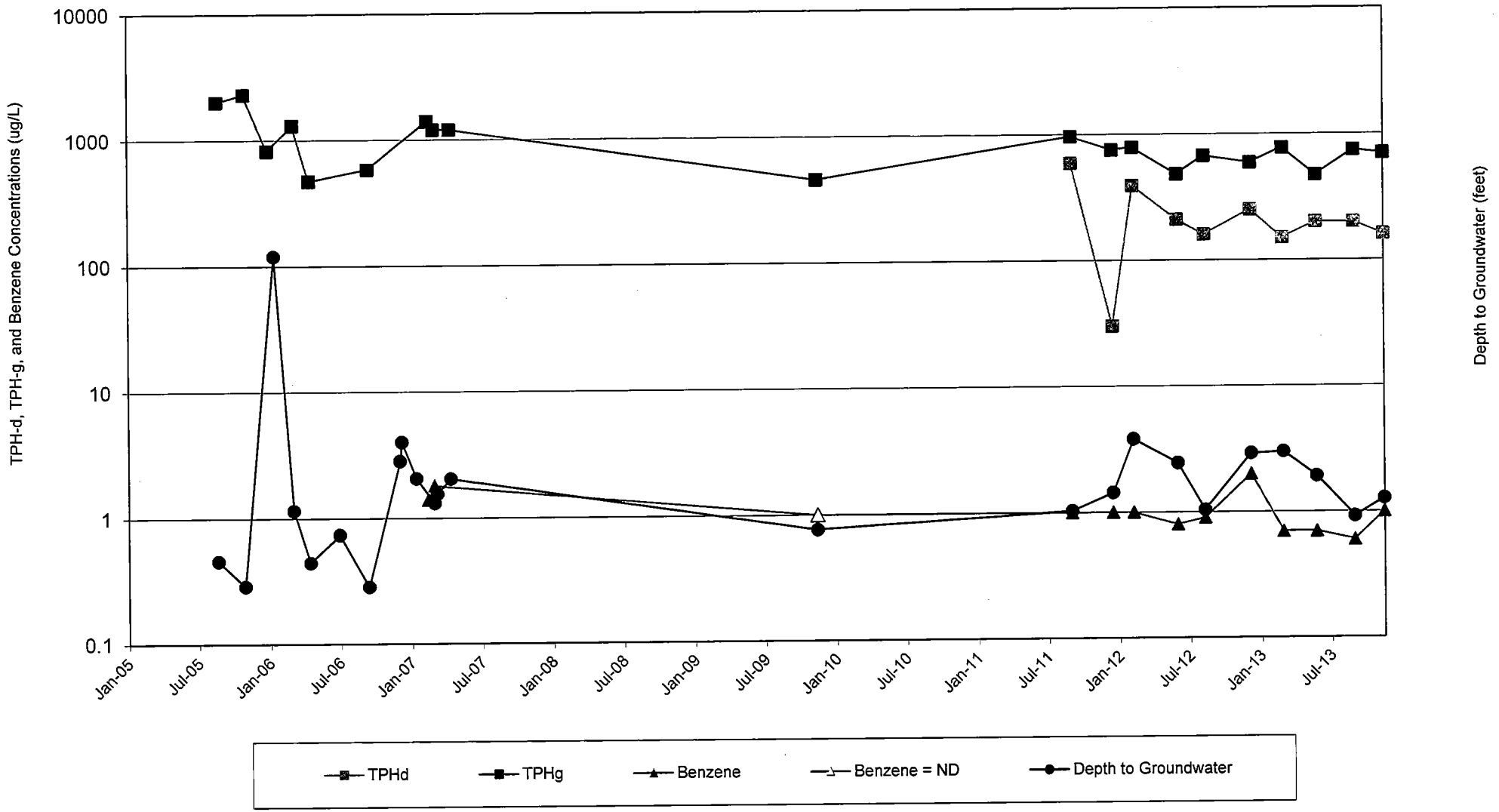
Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

ATTACHMENT C

CONCENTRATION TREND GRAPHS

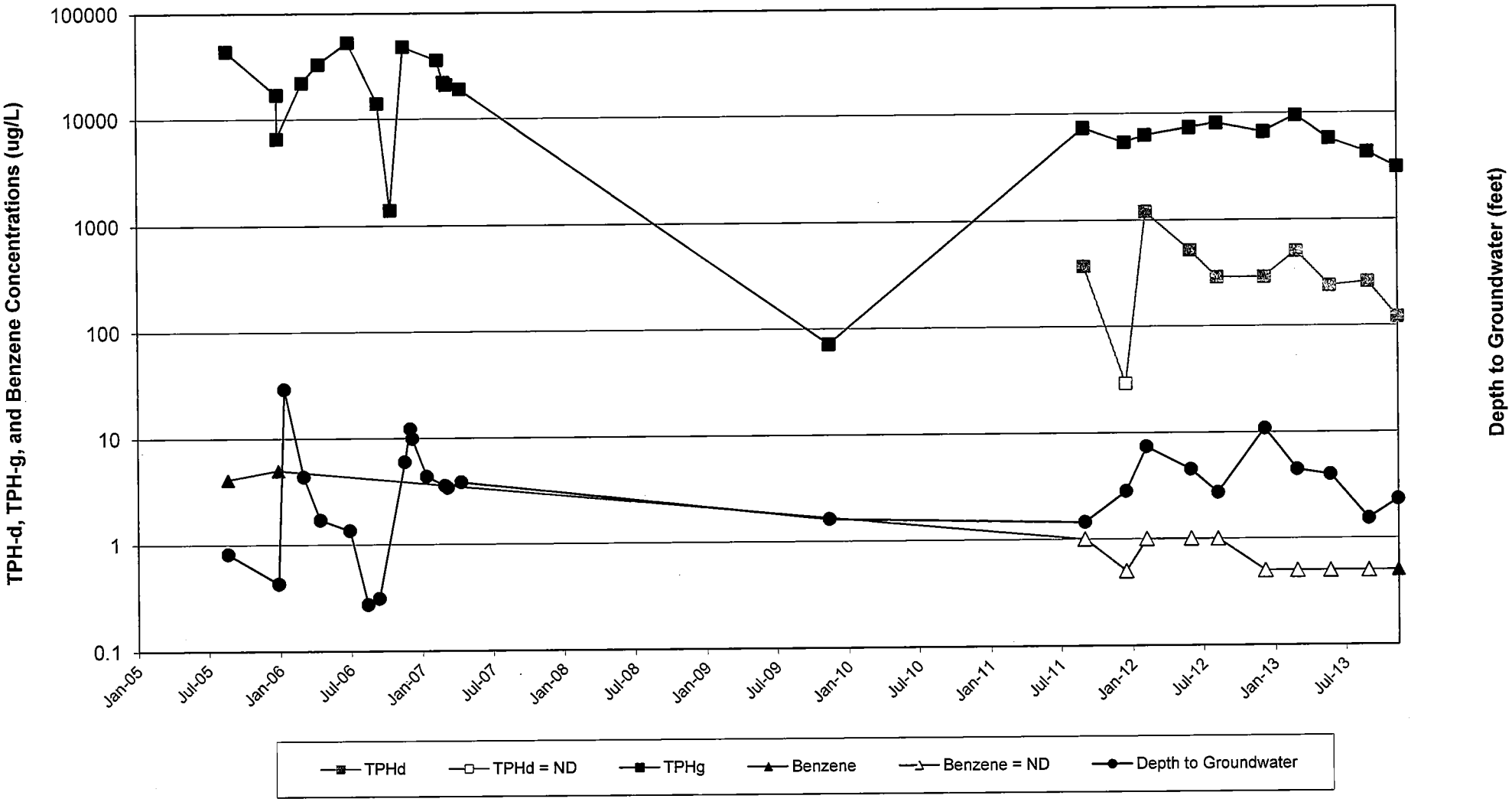
GRAPH 1

CHEMICAL CONCENTRATION VERSUS TIME
MW-2
FORMER TIDEWATER SITE
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON



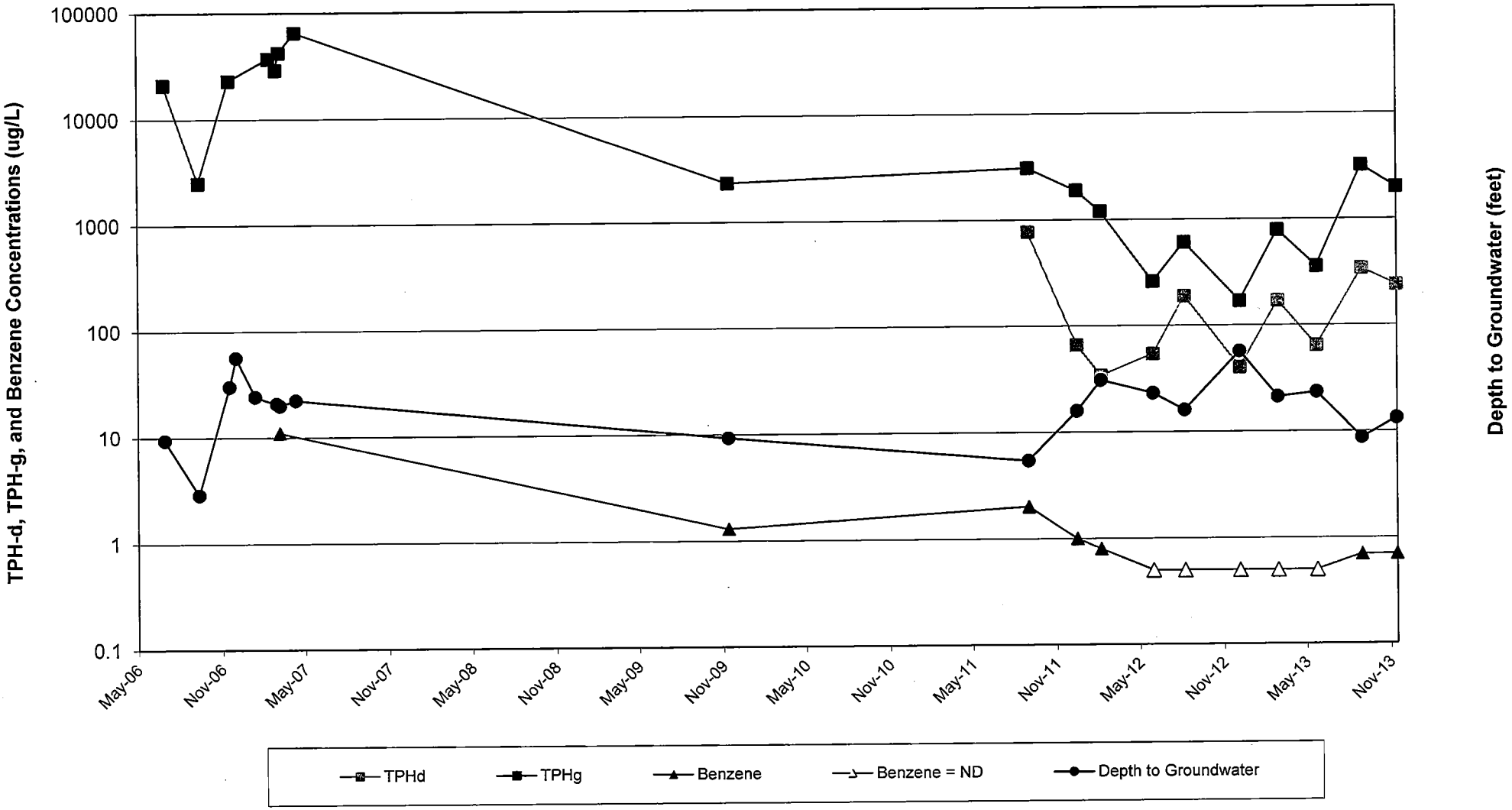
GRAPH 2

CHEMICAL CONCENTRATION VERSUS TIME
MW-3
FORMER TIDEWATER SITE
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON



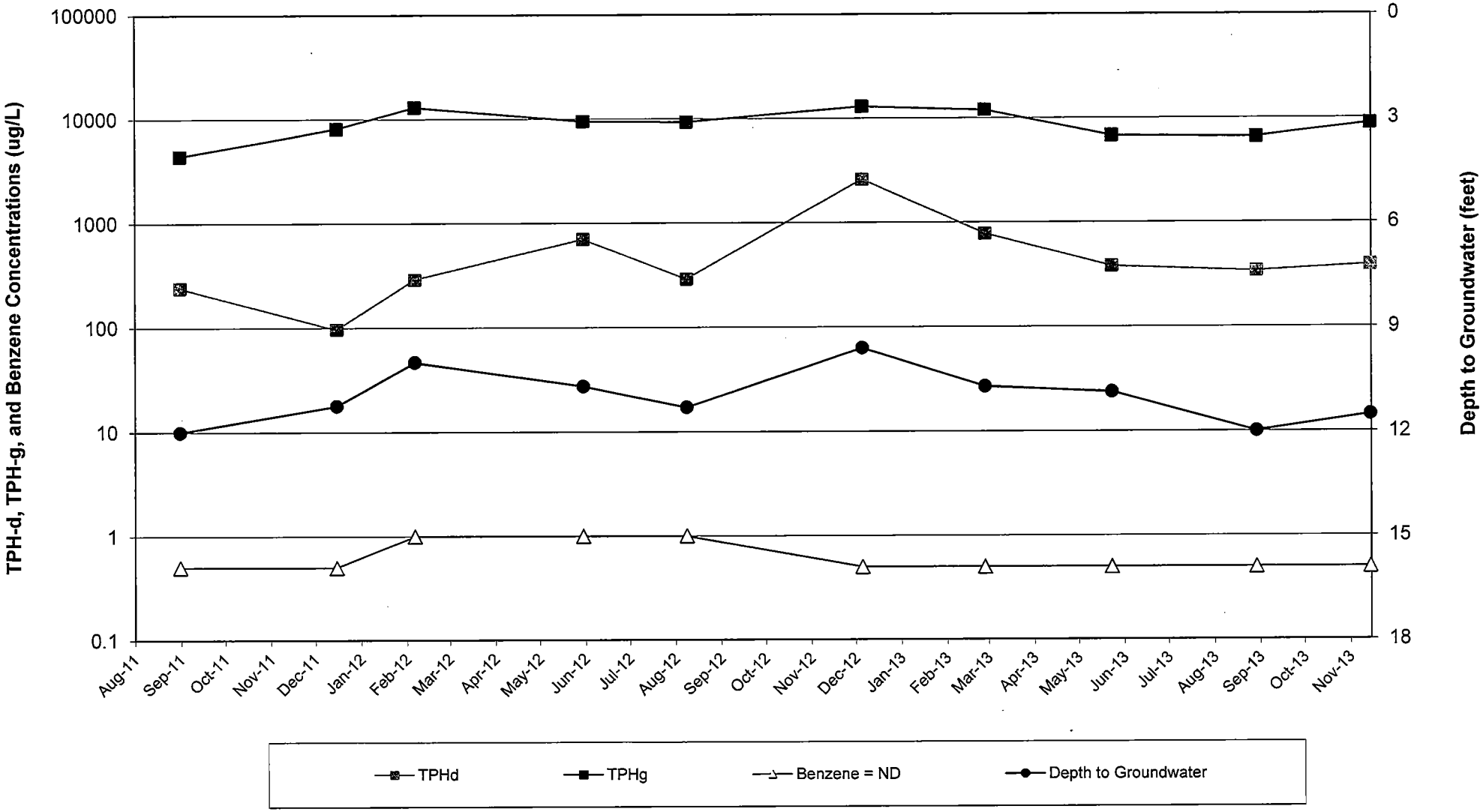
GRAPH 3

CHEMICAL CONCENTRATION VERSUS TIME
MW-5
FORMER TIDEWATER SITE
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON



GRAPH 4

CHEMICAL CONCENTRATION VERSUS TIME
MW-8
FORMER TIDEWATER SITE
2800 MARTIN LUTHER KING JUNIOR WAY SOUTH
SEATTLE, WASHINGTON



ATTACHMENT D

SUMMARY OF PREVIOUS INVESTIGATIONS

SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIATION

Former Tidewater Site
Phillips 66 Site 5173
Chevron Site 301233
2800 Martin Luther King Junior Way South
Seattle, Washington

1989

Soil and groundwater investigations at the Site began with the UST removals in 1989. All soil samples collected from the UST excavation, in the northwest corner of the Property, were documented below the Model Toxics Control Act (MTCA) Method A Cleanup Levels for constituents of concern (COC). (Stantec, 2012).

February 2005

Additional soil and groundwater investigations were conducted by G-Logics in February 2005. A groundwater sample collected from boring GL-4, contained total petroleum hydrocarbons (TPH) in the gasoline range (TPHg) at 5,900 micrograms per liter (µg/L). The sample area was located between the former western and eastern pump islands. G-Logics also conducted an investigation beneath the former heating oil UST. Impacted soil was found in this location but it did not exceed MTCA Method A cleanup levels. (Stantec, 2012).

June 2005

Further soil and groundwater investigation of the western and eastern pump island area was conducted by G-Logics in June 2005 (soil borings P1 through P11). Laboratory results confirmed that the highest concentrations of petroleum-impacted soil, mostly in the gasoline range, were from soil borings P7, P8, and P9 in the vicinity of the western pump island, which all exceeded MTCA Method A cleanup levels. The impact was primarily observed between 15 and 20 feet below ground surface (bgs). (Stantec, 2012).

August 2005

In August 2005, G-Logics began the installation and operation of an ozone treatment system. Five ozone injection points (IP-1 through IP-5) and monitoring wells MW-1, MW-2, and MW-3 were installed. The ozone system began operation on August 26, 2005. (Stantec, 2012).

June 2006

Elevated concentrations of TPHg were regularly detected at MW-3, located west of the western pump island. As a result, G-Logics continued soil investigations in the vicinity

of MW-3 in June 2006 due to elevated concentrations of TPHg detected in the groundwater well during quarterly sampling activities. Petroleum related compounds were either non-detect or were below the MTCA Method A cleanup levels in the borings, supporting that the source area was concentrated in the area of the west pump island. (Stantec, 2012).

August 2006

In August 2006, a second compressor was added to augment the ozone injection system. The second compressor was dedicated to providing a primary source of air flow to the wells; the original compressor was dedicated to providing air flow to the ozone generator. (Stantec, 2012).

December 2006 through June 2007

To supplement the ozone treatment system, in December 2006, G-Logics oversaw the installation of a horizontal pipe for In-Situ Chemical Oxidation (ISCO) in an area up-gradient of the western pump island. The pipe was installed at approximately 6 to 7 feet; installation at a greater depth was unfeasible due to soil caving. Between January and March 2007, ISCO using Fenton's Reagent was performed to supplement ozone injection remediation efforts. On January 4, 2007, a buffered, iron-catalyst was introduced with the Fenton's application. In March 2007, a Fenton's application treatment well (TW-1) was installed directly west of the west pump island source area. The ozone system was shut down in June 2007. (Stantec, 2012).

April through July 2011

In April and July 2011, Stantec Consulting oversaw Cascade Drilling, L.P. advance seven soil borings (B-1 through B-7) and install five 2-inch diameter groundwater monitoring wells (MW-6 through MW-10). Analytical results from the smear zone and water bearing zone from soil collected between 10 and 17 feet bgs contained relatively low to non-detectable concentrations for TPHg, TPH in the diesel range (TPHd), TPH in the heavy oil range (TPHo) and benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX) except for the samples collected from the former heating oil UST area (B-3 and MW-9) at 10 and 15 feet bgs. Soil samples screened in the vadose zone, in general, contained low to non-detectable concentrations of TPHg, TPHd, TPHo, and BTEX. Groundwater samples collected in borings B-1 through B-7 showed slightly elevated concentrations of TPHg and total xylenes near the former pump island (borings B-2 and B-6). Down-gradient of the Site, in borings B-4 and B-5, concentrations of TPHg and BTEX were below the laboratory method detection limit (MDL). (Stantec, 2012).

References

Stantec Consulting Corporation (Stantec, 2012), First Quarter 2012 Monitoring and Sampling Report, April 27, 2012.