



**CONESTOGA-ROVERS  
& ASSOCIATES**

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December 11, 2012

Reference No. 061992

Mr. John Bails  
Department of Ecology  
Northwest Regional Office  
3190 160<sup>th</sup> Avenue Southeast  
Bellevue, Washington 98008

Re: Third Quarter 2012 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

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Dear Mr. Bails,

Conestoga-Rovers & Associates (CRA) is submitting this *Third Quarter 2012 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 and standard operating procedures (SOP) are presented as Attachment A. Lancaster Laboratories' *Analytical Results* report is included as Attachment B. Historical groundwater monitoring and sampling data are included as Attachment C. Graphs depicting total petroleum hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), and benzene concentrations over time for select wells are included as Attachment D. A summary of previous site investigation is included as Attachment E. A site map is presented on Figure 2.

### **RESULTS OF THIRD QUARTER 2012 EVENT**

On August 7 and 8, 2012, 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                | 0.04 feet/foot                     |
| • Approximate Depth to Water        | 11 to 13 feet below grade          |
| • Approximate Groundwater Elevation | 45 to 51 feet above mean sea level |

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

TABLE A: GROUNDWATER ANALYTICAL DATA							
Well ID	TPHd (µg/L)	TPHo (µg/L)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
<i>MTCA Method A Cleanup Levels</i>	<b>500</b>	<b>500</b>	<b>800/1000*</b>	<b>5</b>	<b>1000</b>	<b>700</b>	<b>1000</b>
MW-1	<29	<67	<50	<0.5	<0.5	<0.5	<0.5
MW-2	160	<67	670	0.9	<0.5	<0.5	0.5
MW-3	290	<67	<b>8,100</b>	<1	<1	140	610
MW-4	<29	<68	<50	<0.5	<0.5	<0.5	<0.5
MW-5	190	<66	610	<0.5	<0.5	11	22
MW-6	<28	<66	<50	<0.5	<0.5	<0.5	<0.5
MW-7	<28	<66	<50	<0.5	<0.5	<0.5	<0.5
MW-8	290	<66	<b>9,300</b>	<1	<1	92	850
MW-8 DUP	240	<66	<b>11,000</b>	<1	<1	83	710
MW-9	<29	<67	<50	<0.5	<0.5	<0.5	<0.5
MW-10	130	<68	110	1	<0.5	<0.5	1
<b>Bold</b>	Indicates concentration exceed MTCA Method A cleanup level						
*	TPHg Cleanup Level for wells containing benzene is 800 µg/L; otherwise, the cleanup level for TPHg is 1,000 µg/L.						

## 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 in two wells (MW-3 and MW-8), with the highest concentration detected at MW-8 (Figure 5).
- TPHd concentrations were below the MTCA Method A cleanup level in groundwater in all wells (Figure 6).
- TPHo concentrations were below MTCA Method A cleanup levels.
- Benzene, toluene, ethylbenzene, and total xylene concentrations were all below the MTCA Method A cleanup levels in groundwater. .



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- With the exception of 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 assess concentration trends over time.

### **ANTICIPATED FUTURE ACTIVITIES**

#### ***Groundwater Monitoring***

CRA will monitor and sample site wells per the established schedule. The fourth quarter 2012 event is scheduled for late November 2012. CRA will submit a groundwater monitoring and sampling report approximately 90 days following receipt of laboratory analytical results.

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

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Edwin Turner

ET/aa/2  
Encl.



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& ASSOCIATES**

December 11, 2012

Reference No. 061992

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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 and SOP for Low Flow Groundwater Monitoring and Sampling
Attachment B	Laboratory Analytical Report
Attachment C	Historical Groundwater Monitoring and Sampling Data
Attachment D	Concentration Trend Graphs
Attachment E	Summary of Previous Investigation

cc: Mr. Rick Rittenberg, Chevron (*electronic copy*)  
Mr. Louis Mosconi, Phillips 66 (*electronic copy*)  
Greg McCormick, EP Inc. (*electronic copy*)

## FIGURES

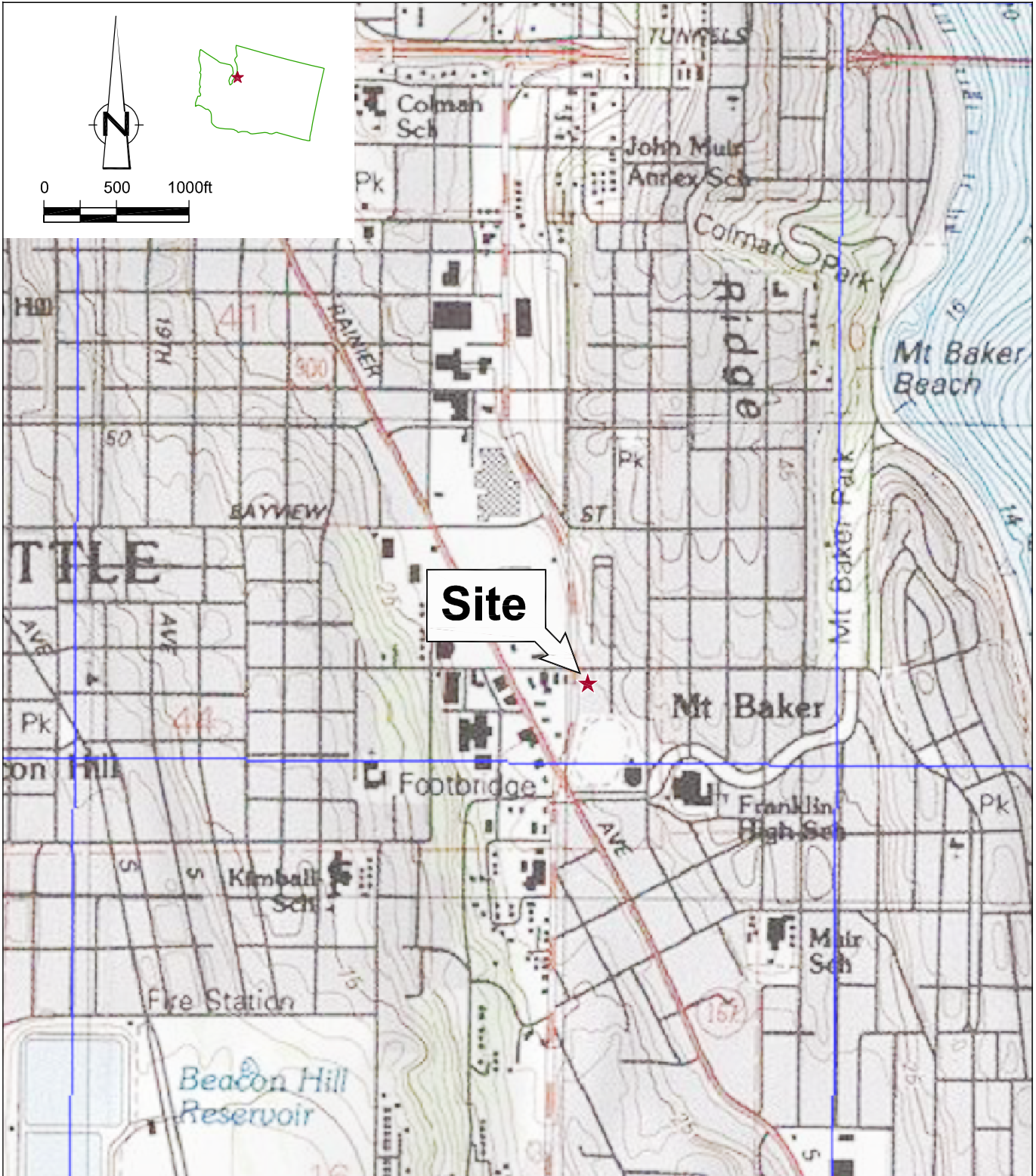
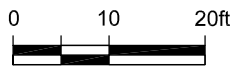
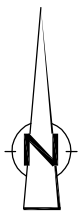


Figure 1  
 VICINITY MAP  
 FORMER TIDEWATER SERVICE STATION  
 PHILLIPS 66 SITE 5173  
 CHEVRON SITE 301233  
 2800 MARTIN LUTHER KING WAY SOUTH  
*Seattle, Washington*



SOUTH McCLELLAN STREET



**LEGEND**

- MW-1 GROUNDWATER MONITORING WELL
- P-1 PREVIOUS GEOPROBE BORING
- B-4 SOIL BORING
- GL-2 AUGER BORING LOCATION WITH GROUNDWATER SAMPLE
- ▣ GL-1 AUGER BORING LOCATION
- ⊙ IP-1 FORMER INJECTION WELL LOCATION
- ⊠ B-4 SOIL SAMPLE LOCATION



MARTIN LUTHER KING WAY

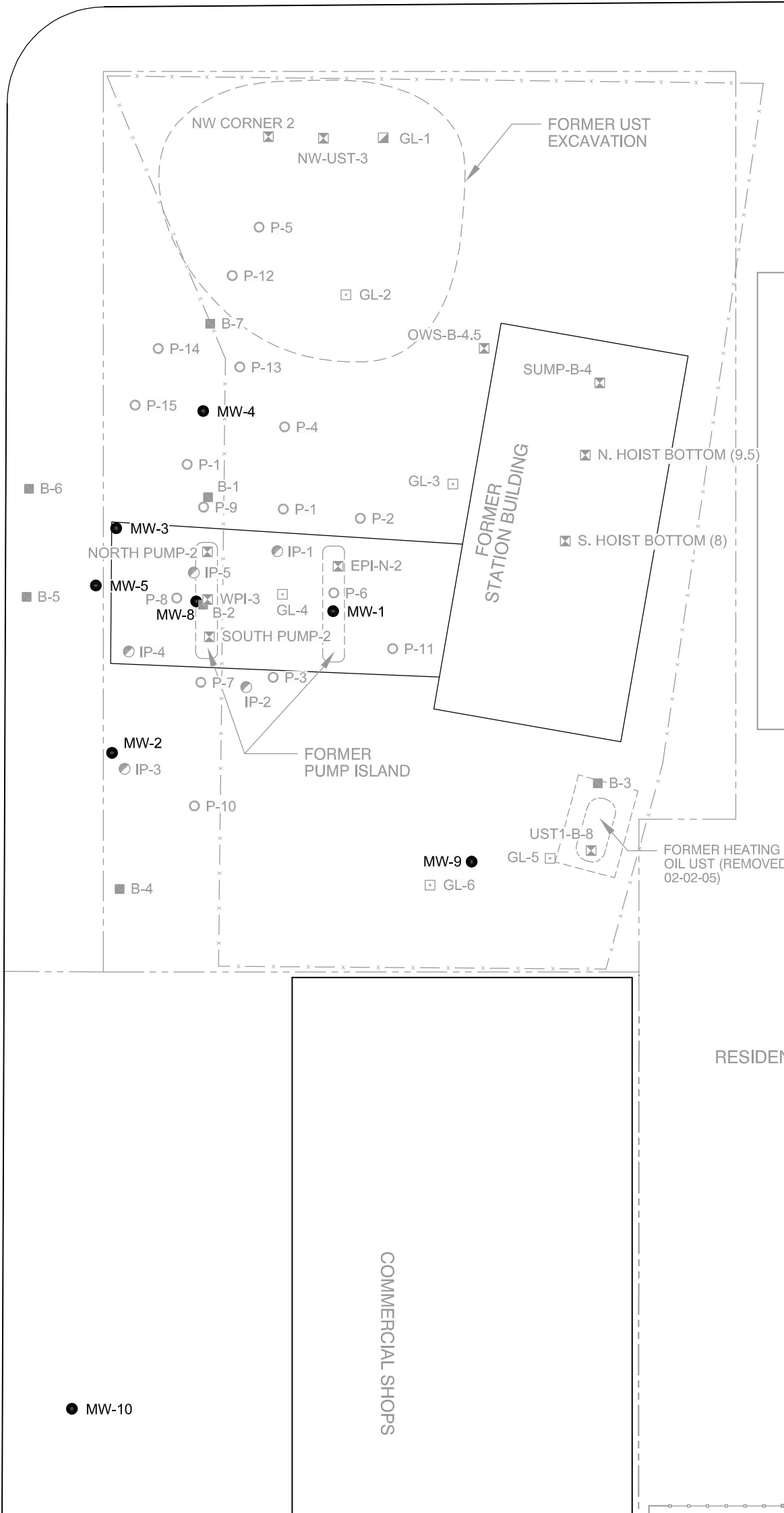


Figure 2

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



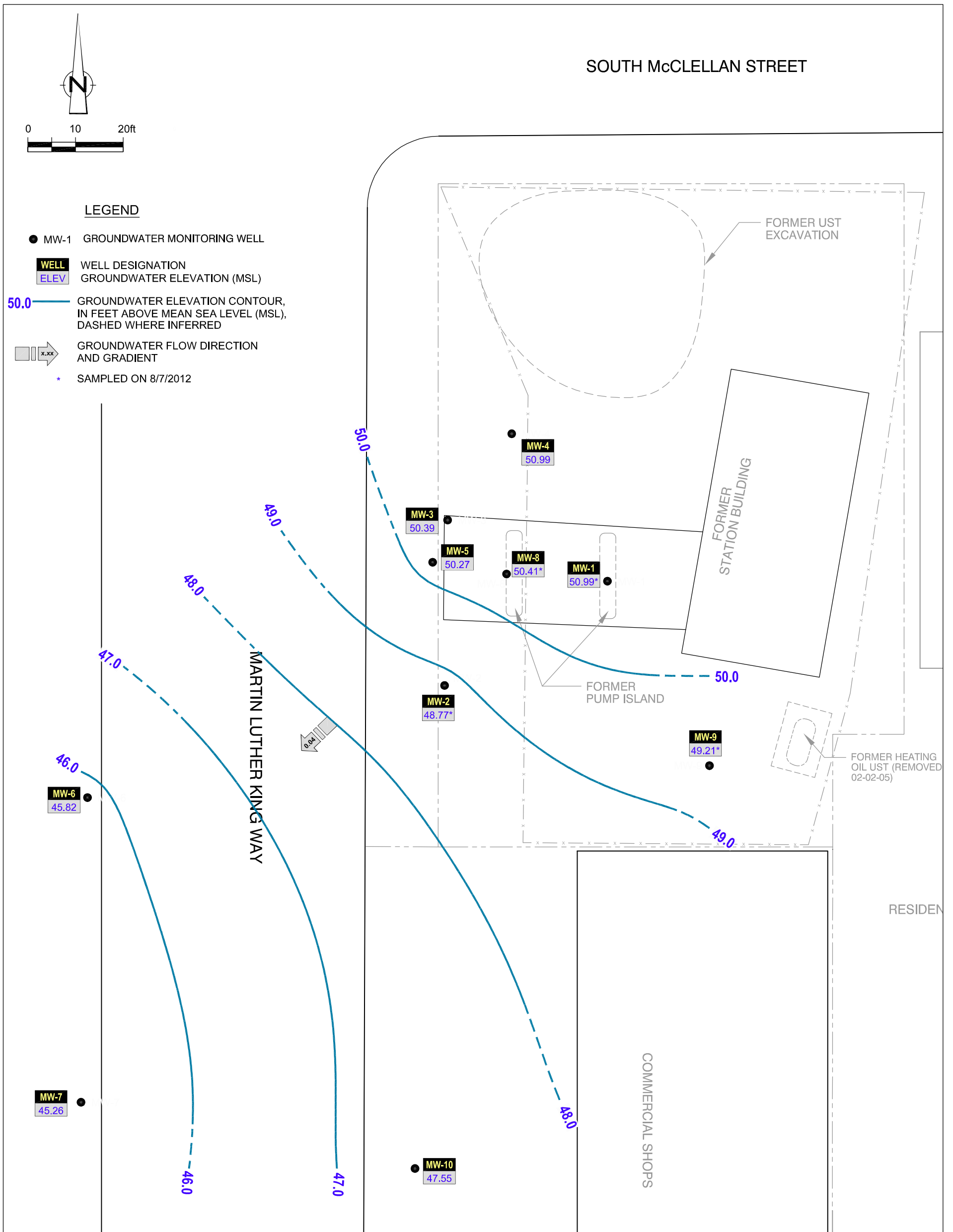
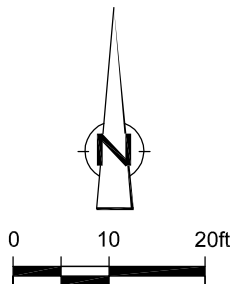


Figure 3  
 GROUNDWATER ELEVATION CONTOUR MAP  
 FORMER TIDEWATER SERVICE STATION  
 PHILLIPS 66 SITE 5173  
 CHEVRON SITE 301233  
 2800 MARTIN LUTHER KING WAY SOUTH  
 Seattle, Washington  
 August 7, 2012





SOUTH McCLELLAN STREET



**LEGEND**

- MW-1 GROUNDWATER MONITORING WELL
- WELL** WELL DESIGNATION
- TPHG CONCENTRATION (µg/L)
- TPHD CONCENTRATION (µg/L)
- BENZ CONCENTRATION (µg/L)
- TOUL CONCENTRATION (µg/L)
- ETH CONCENTRATION (µg/L)
- TOTAL CONCENTRATION (µg/L)
- \* SAMPLED ON 8/8/2012
- D DUPLICATE



Figure 4

GROUNDWATER CONCENTRATION MAP  
 FORMER TIDEWATER SERVICE STATION  
 PHILLIPS 66 SITE 5173  
 CHEVRON SITE 301233  
 2800 MARTIN LUTHER KING WAY SOUTH  
 Seattle, Washington  
 August 7, 2012



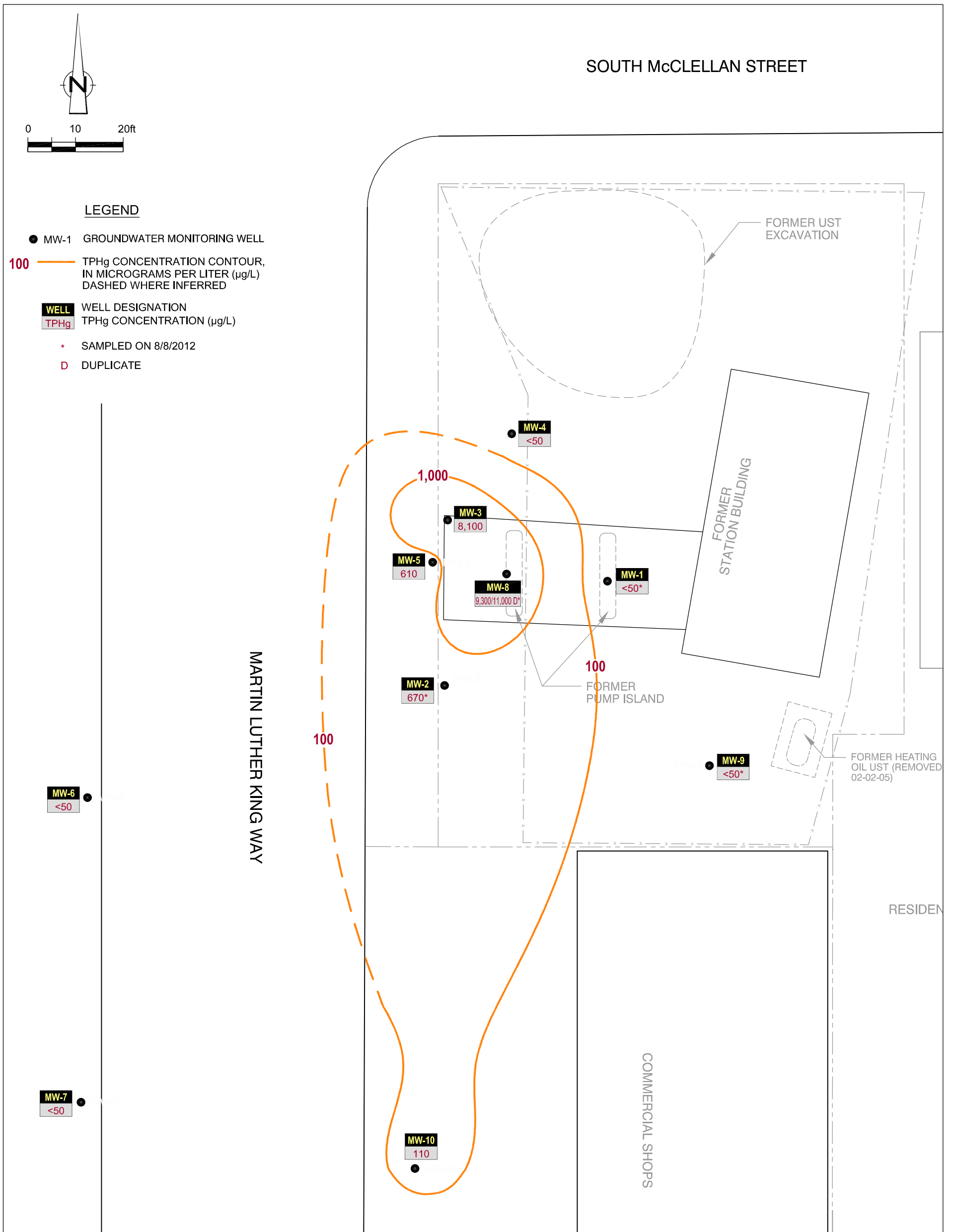
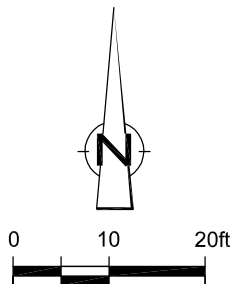


Figure 5  
 TPHg ISOCONCENTRATION CONTOUR MAP  
 FORMER TIDEWATER SERVICE STATION  
 PHILLIPS 66 SITE 5173  
 CHEVRON SITE 301233  
 2800 MARTIN LUTHER KING WAY SOUTH  
 Seattle, Washington  
 August 7, 2012



SOUTH McCLELLAN STREET



**LEGEND**

- MW-1 GROUNDWATER MONITORING WELL
- 100 ——— TPHd CONCENTRATION CONTOUR, IN MICROGRAMS PER LITER (µg/L) DASHED WHERE INFERRED
- WELL DESIGNATION  
TPHd CONCENTRATION (µg/L)
- \* SAMPLED ON 8/8/2012
- D DUPLICATE

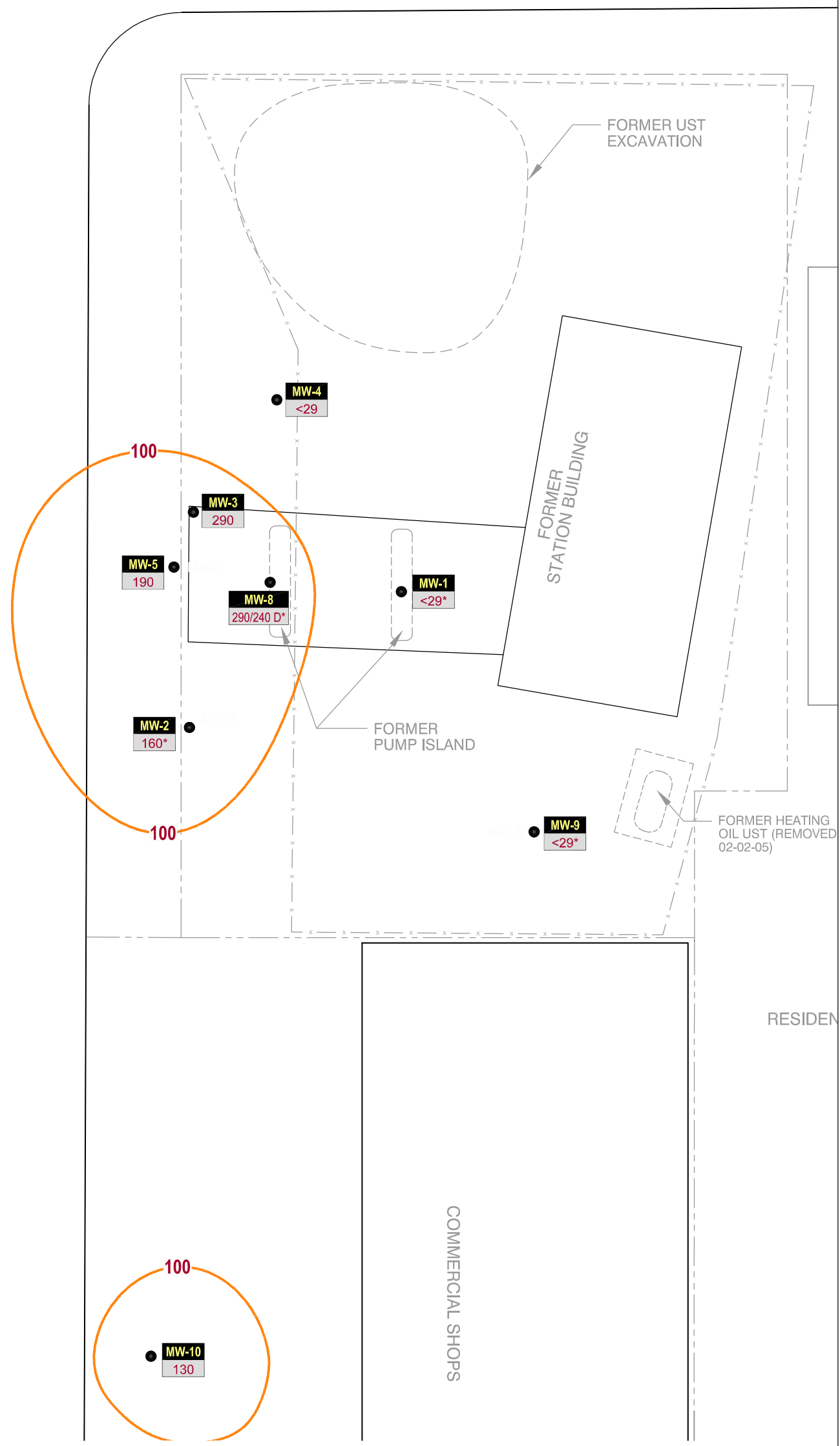


Figure 6

TPHd ISOCONCENTRATION CONTOUR MAP  
 FORMER TIDEWATER SERVICE STATION  
 PHILLIPS 66 SITE 5173  
 CHEVRON SITE 301233  
 2800 MARTIN LUTHER KING WAY SOUTH  
 Seattle, Washington  
 August 7, 2012



## 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

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS														
					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	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 <sup>3</sup>	97.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	12/15/2011 <sup>3</sup>	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 <sup>4</sup>	<67 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.32	-	
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	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-

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

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS														
					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	μg/L	μg/L
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 <sup>4</sup>	<67 <sup>4</sup>	0.9	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<1	<1	<1	48	24	8.3	-	
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS														
					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	μg/L	μg/L
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 <sup>4</sup>	<67 <sup>4</sup>	<1	<1	140	610	<1	<1	<1	71	830	140	86	33	0.98	-	-
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	-	-	-	-	-	-	-	-	-	-	-

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

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS														
					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	μg/L	μg/L
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	<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	<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	<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	1.8	0.007248
<b>MW-4</b>	<b>08/07/2012</b>	<b>62.75</b>	<b>11.76</b>	<b>50.99</b>	<50	<29 <sup>4</sup>	<68 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<b>0.34</b>	-
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	-	-	-	-	-	-	-	-	-	-	-
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	
<b>MW-5</b>	<b>08/07/2012</b>	<b>61.66</b>	<b>11.39</b>	<b>50.27</b>	<b>610</b>	<b>190<sup>4</sup></b>	<b>&lt;66<sup>4</sup></b>	<0.5	<0.5	<b>11</b>	<b>22</b>	<0.5	<0.5	<0.5	<b>21</b>	<b>33</b>	<b>12</b>	<b>32</b>	<b>13</b>	<b>5.1</b>	-	
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	-	-	



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

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS														
					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	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	µg/L
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	<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	<1	2.5	-
<b>MW-6</b>	<b>08/07/2012</b>	<b>58.03</b>	<b>12.21</b>	<b>45.82</b>	<50	<28 <sup>4</sup>	<66 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<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	<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	<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	<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	<1	13.8	0.097
<b>MW-7</b>	<b>08/07/2012</b>	<b>56.96</b>	<b>11.70</b>	<b>45.26</b>	<50	<28 <sup>4</sup>	<66 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	31.7	-
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	
<b>MW-8</b>	<b>08/08/2012</b>	<b>61.71</b>	<b>11.30</b>	<b>50.41</b>	<b>9,300</b>	<b>290<sup>4</sup></b>	<b>&lt;66<sup>4</sup></b>	<1	<1	92	850	<1	<1	<1	73	910	190	49	22	3.4	-	
<b>MW-8 DUP</b>	<b>08/08/2012</b>	<b>61.71</b>	<b>11.30</b>	<b>50.41</b>	<b>11,000</b>	<b>240<sup>4</sup></b>	<b>&lt;66<sup>4</sup></b>	<1	<1	83	710	<1	<1	<1	67	680	140	44	20	3.6	-	
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	<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	<1	-	-
MW-9	02/06/2012	62.58	12.04	50.54	66	<300	<700 <sup>1</sup>	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<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	<1	0.31	0.007248
<b>MW-9</b>	<b>08/08/2012</b>	<b>62.58</b>	<b>13.37</b>	<b>49.21</b>	<50	<29 <sup>4</sup>	<67 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	0.87	-

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

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS														
					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	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	µg/L
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	<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	<1	-	-
MW-10	02/06/2012	58.96	10.44	48.52	<50 <sup>2</sup>	<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	-
MW-10	08/07/2012	58.96	11.41	47.55	110	130 <sup>4</sup>	<68 <sup>4</sup>	1	<0.5	<0.5	1	<0.5	<0.5	<0.5	<1	<1	<1	10	4	<0.034	-	
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	-	-	

**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

VOCS = Volatile organic compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylene

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**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS														
					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	µg/L

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. I286

<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.

ATTACHMENT A

MONITORING DATA PACKAGE AND SOP FOR LOW FLOW  
GROUNDWATER MONITORING AND SAMPLING

WATER LEVEL RECORD

PROJECT NAME: TIDEWATER - SEATTLE, WA.

LOCATION: 2800 MLK WAY, SEATTLE, WA

JOB NO.: 061992-2012.3

DATE: 08/08/12

CLIENT: P66

ENGINEER/GEOLOGIST: D. Winsperger

OBSERVATION WELL	TOP OF CASING ELEVATION		DEPTH TO WATER		DEPTH TO PRODUCT		WATER LEVEL ELEVATION	
	A		B		C		A-B	
	feet	metres	feet	metres	feet	metres	feet	metres
MW 4			11.76					
MW 3			11.42					
MW 5			11.39					
MW 2			11.95					
MW 6			12.21					
MW 7			11.70					
MW 1			11.36					
MW 9			13.37					
MW 8			11.30					
MW 10			11.41					

CRA

Location: MW-7  
Name of Sampler: JS  
Weather: cloudy  
Depth to Water: 11.07  
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- 080712 JS-MW7

Sample Method: low flow  
Purge Start: 09:24  
Sample Time: 09:50

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
0932	6.07	0.090	-5.0	0.62	18.11	-237	0.0	0.6			11.08	
0935	6.29	0.090	-5.0	0.49	18.19	-248	0.0	0.6			11.08	
0938	6.21	0.090	-5.0	0.44	18.14	-239	0.0	0.6			11.08	
0941	6.24	0.090	-5.0	0.44	18.12	-254	0.0	0.5			11.08	
0944	6.26	0.090	-5.0	0.42	18.08	-255	0.0	0.5			11.08	
0950	Start	Collect samples.										

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

**Preservative**  
HCL  
HCL  
HCL

Signed \_\_\_\_\_ JS

Notes:  
\_\_\_\_\_

Former Tidewater Site  
Seattle, WA

Water Quality Meter S/N: \_\_\_\_\_

Date: 08/08/12

Location: MW9  
Name of Sampler: N. Hinspewger  
Weather: Sunny  
Depth to Water: 13.37 Sample Depth: \_\_\_\_\_  
Depth to Bottom: \_\_\_\_\_

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- 080812-NH-MW9

Sample Method: LOW FLOW 1 Well Volume: \_\_\_\_\_ water column height(ft) X  
Purge Start: 10:30 3 Well Volumes: \_\_\_\_\_ 0.162(2" casing)  
Sample Time: 11:30

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
10:35	7.07	99.9	5.0	2.13	16.08	-104	0.1	1.62	0.00	.100	13.51	TURBID
10:40	7.11	99.9	5.0	0.34	16.14	-108	0.1	1.62		.100	13.61	"
10:45	7.25	99.9	5.0	0.0	15.98	-108	0.1	1.62		.100	13.61	"
10:50	6.93	99.9	612.0	0.0	15.84	-102	0.1	1.48		.100	13.61	"
10:55	6.84	99.9	473.0	0.0	15.78	-103	0.1	1.43		.100	13.61	"
11:00	6.72	99.9	440.0	0.0	15.81	-104	0.1	0.40		.100	13.61	"
11:05	6.73	99.9	979.0	0.0	15.94	-114	0.1	0.41		.100	13.61	"
11:10	6.69	99.9	618.0	0.0	15.96	-121	0.1	0.38		.100	13.61	"

- Analysis:**  
**Groundwater**  
GRO  
DRO  
VOCs  
SVOCs  
Total Lead

✓
✓
✓
✓
✓

- Preservative**  
HCL  
HCL  
HCL

Signed [Signature]

Notes: \_\_\_\_\_

Location: MW 8  
Name of Sampler: N. Hinsinger  
Weather: Overcast

Depth to Water: 11.30 Sample Depth: \_\_\_\_\_  
Depth to Bottom: \_\_\_\_\_

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
x Location ID

GW- 080812-NH-MW8  
080812-NH-FD1

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

Sample Method: Low Flow 1 Well Volume: \_\_\_\_\_  
Purge Start: 12:25 3 Well Volumes: \_\_\_\_\_  
Sample Time: 13:30

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
12:31	6.47	0.91	157.0	0.0	16.46	-109	0.1	1.13		.100	11.50	CLEAR
12:36	6.50	0.090	138.0	0.0	16.80	-110	0.1	1.13		.100	11.55	"
12:41	6.56	0.090	133.0	0.0	16.86	-111	0.1	0.30		.100	11.55	"
12:46	6.45	0.090	131.0	0.0	16.90	-112	0.1	1.10		.100	11.55	"
12:49	6.44	0.091	86.0	0.0	16.86	-110	0.1	1.13		.100	11.55	"
12:54	6.43	0.090	63.0	0.0	16.46	-106	0.1	0.40		.100	11.55	"

- Analysis:**  
Groundwater  
GRO  
DRO  
VOCs  
SVOCs  
Total Lead

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

- Preservative**  
HCL  
HCL  
HCL

Signed [Signature]

Notes:  
\_\_\_\_\_



Former Tidewater Site  
Seattle, WA

Water Quality Meter S/N: \_\_\_\_\_

Date: 08/07/12

Location: MW5  
Name of Sampler: N. Hinesinger  
Weather: Overcast

Depth to Water: 11.36 Sample Depth: \_\_\_\_\_  
Depth to Bottom: \_\_\_\_\_

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
x Location ID

GW- 080712-NH-MW5

QA/QC  
MS/MSD \_\_\_\_\_  
Duplicate \_\_\_\_\_  
Blank \_\_\_\_\_

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

Sample Method: Low Flow 1 Well Volume: \_\_\_\_\_  
Purge Start: 13:45 3 Well Volumes: \_\_\_\_\_  
Sample Time: 14:30


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	WL (Feet BTOC)	Water Quality/Description
13:50	6.56	99.9	-5.0	4.66	18.45	-109	0.1	0.41		.18	11.63	TURBID
13:55	6.52	99.9	-5.0	0.16	18.20	-95	0.1	0.41		.100	11.69	" "
14:00	6.46	99.9	519.0	0.0	17.68	-77	0.1	0.30		.100	11.69	" "
14:05	6.40	99.9	314.0	0.0	17.54	-71	0.0	0.70		.100	11.69	" "
14:10	6.50	99.9	296.0	0.0	17.62	-68	0.0	0.30		.100	11.69	" "
14:15	6.45	99.9	252.0	0.0	17.52	-65	0.0	0.30		.100	11.69	" "

- Analysis:**  
**Groundwater**  
GRO  
DRO  
VOCs  
SVOCs  
Total Lead

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

- Preservative**  
HCL  
HCL  
HCL

Signed 

Notes:

Former Tidewater Site  
Seattle, WA

Water Quality Meter S/N: \_\_\_\_\_

Date: 06/08/12

Location: MW2  
Name of Sampler: N. H. [unclear]  
Weather: Overcast

Depth to Water: 11.39 Sample Depth: \_\_\_\_\_  
Depth to Bottom: \_\_\_\_\_

Sample IDs (GW-mmddyy-AA-XXX) \_\_\_\_\_  
A Samplers Initials \_\_\_\_\_  
x Location ID \_\_\_\_\_  
GW- 060812-NH-MW2

QA/QC  
MS/MSD \_\_\_\_\_  
Duplicate \_\_\_\_\_  
Blank \_\_\_\_\_

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

Sample Method: Low Flow 1 Well Volume: \_\_\_\_\_ water column height(ft) X  
Purge Start: 8:50 3 Well Volumes: \_\_\_\_\_ 0.162(2" casing)  
Sample Time: 9:45

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
8:55	6.57	0.089	5.0	1.60	16.62	-114	0.1	1.16		100	11.65	Turbid
9:00	6.46	0.090	5.0	0.0	16.79	-112	0.1	0.40		100	11.81	"
9:05	6.50	0.089	5.0	0.0	16.57	-112	0.1	0.40		100	11.81	"
9:10	6.43	0.089	5.0	0.0	16.83	-113	0.0	0.40		100	11.81	"
9:15	6.50	0.091	5.0	0.0	17.10	-94	0.0	0.40		100	11.81	"

- Analysis:**  
Groundwater  
GRO  
DRO  
VOCs  
SVOCs  
Total Lead

✓
✓
✓
✓
✓

- Preservative**  
HCL  
HCL  
HCL

Signed [Signature]

Notes:  
\_\_\_\_\_

Location: MW10  
 Name of Sampler: N. H. [unclear]  
 Weather: Overcast  
 Depth to Water: 11.41 Sample Depth: \_\_\_\_\_  
 Depth to Bottom: \_\_\_\_\_

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- 080712-NH-MW10

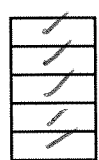
Sample Method: Low Flow  
 Purge Start: 9:14  
 Sample Time: 10:00

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
9:35	6.64	.270	0.2	4.59	17.78	-138	0.1	1.7		.100	11.41	CLEAR
9:40	6.53	.263	0.0	0.40	17.70	-146	0.1	1.7		.100	11.44	"
9:45	6.55	.261	0.0	0.0	17.31	-150	0.1	1.7		.100	11.45	"
9:50	6.59	.261	0.0	0.0	17.26	-151	0.1	1.7		.100	11.40	"
9:55	6.57	.258	0.0	0.0	17.30	-152	0.1	1.7		.100	11.47	"

- Analysis:**  
Groundwater  
 GRO  
 DRO  
 VOCs  
 SVOCs  
 Total Lead



- Preservative**  
 HCL  
 HCL  
 HCL

Signed: [Signature]

Notes:

Former Tidewater Site  
Seattle, WA

Water Quality Meter S/N: \_\_\_\_\_

Date: 08/07/12

Location: MW3  
Name of Sampler: N. Ninsperger  
Weather: overcast

Depth to Water: 11.38 Sample Depth: \_\_\_\_\_  
Depth to Bottom: \_\_\_\_\_

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
x Location ID

GW- 080712-NH-MW3

QA/QC  
MS/MSD \_\_\_\_\_  
Duplicate \_\_\_\_\_  
Blank \_\_\_\_\_

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

Sample Method: LOW FLOW 1 Well Volume: \_\_\_\_\_  
Purge Start: 10:55 3 Well Volumes: \_\_\_\_\_  
Sample Time: 12:00

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
11:12	6.93	0.090	49.0	1.61	16.80	-123	0.0	0.4		.100	11.52	CLEDR
11:17	6.76	0.090	127.0	0.15	16.47	-129	0.0	0.4		.100	11.58	" "
11:22	6.58	0.090	39.4	0.0	16.45	-129	0.0	0.4		.100	11.61	" "
11:27	6.66	0.090	22.3	0.0	16.49	-128	0.0	0.4		.100	11.67	" "
11:32	6.55	0.090	21.6	0.0	16.60	-131	0.1	0.4		.100	11.72	" "
11:37	6.60	0.090	11.1	0.0	16.65	-130	0.1	0.4		.100	11.78	" "

Analysis:  
Groundwater  
GRO  
DRO  
VOCs  
SVOCs  
Total Lead

✓
✓
✓
✓
✓
✓

Preservative  
HCL  
HCL  
HCL

Signed [Signature]

Notes:  
[Empty Box]

Former Tidewater Site  
Seattle, WA

Water Quality Meter S/N: \_\_\_\_\_

Date: 08/08/12

Location: MW 1  
Name of Sampler: D. H. Inspey  
Weather: Sunny  
Depth to Water: 11.36 Sample Depth: \_\_\_\_\_  
Depth to Bottom: \_\_\_\_\_

QA/QC  
MS/MSD   
Duplicate \_\_\_\_\_  
Blank \_\_\_\_\_

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
x Location ID

GW- 080812-NH-MW1

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

Sample Method: LOW FLOW  
Purge Start: 14:05  
Sample Time: 14:45

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
14:12	6.72	99.9	5.0	6.78	17.83	-131	0.0	1.15		.150	11.72	TURBID
14:17	6.68	99.9	5.0	0.0	17.96	-123	0.0	1.15		.150	11.81	" "
14:22	6.63	99.9	5.0	0.0	18.10	-129	0.0	1.15		.100	11.83	" "
14:27	6.61	99.9	5.0	0.0	18.18	-126	0.0	1.14		.100	11.85	" "

- Analysis:**  
**Groundwater**  
 GRO  
 DRO  
 VOCs  
 SVOCs  
 Total Lead

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

- Preservative**  
 HCL  
 HCL  
 HCL

Signed [Signature]

Notes: \_\_\_\_\_

Former Tidewater Site  
Seattle, WA

Water Quality Meter S/N: \_\_\_\_\_

Date: 8/7/12

Location: MW 8 MW 4  
Name of Sampler: JS  
Weather: cloudy  
Depth to Water: 11.69  
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- 080712-JS-MW4

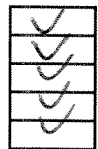
Sample Method: low flow  
Purge Start: 1350  
Sample Time: \_\_\_\_\_

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
1357	6.51	0.090	-5.0	1.61	18.29	-158	0.1	1.6			11.82	
1400	6.50	0.090	-5.0	0.98	18.31	-159	0.0	0.4			11.82	
1403	6.40	0.090	88.0	0.85	18.48	-159	0.0	0.4			11.82	
1406	6.37	0.090	293.0	0.68	18.05	-157	0.1	0.4			11.82	
1409	6.36	0.090	325.0	0.70	18.34	-157	0.1	0.4			11.82	
1412	6.40	0.090	421.0	0.66	18.09	-158	0.0	0.4			11.82	
1420	start to collect samples											

Analysis:  
Groundwater  
GRO  
DRO  
VOCs  
SVOCs  
Total Lead



Preservative  
HCL  
HCL  
HCL

Signed [Signature]

Notes: \_\_\_\_\_

Former Tidewater Site  
Seattle, WA

Water Quality Meter S/N: \_\_\_\_\_

Date: 8/17/12

Location: MW-6  
 Name of Sampler: JS  
 Weather: cloudy  
 Depth to Water: 12.18  
 Depth to Bottom: \_\_\_\_\_

Sample Depth: \_\_\_\_\_

QA/QC  
 MS/MSD \_\_\_\_\_  
 Duplicate \_\_\_\_\_  
 Blank \_\_\_\_\_

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
 x Location ID

GW- 080712 JS MW6

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

Sample Method: low flow  
 Purge Start: 10:48  
 Sample Time: 11:10

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
1054	6.33	0.115	79.4	2.03	19.01	-183	0.1	0.7			12.20	clear
1057	6.34	0.116	79.6	0.95	18.19	-188	0.1	0.7			12.21	
1100	6.35	0.116	69.3	0.73	18.06	-191	0.1	0.7			12.21	↓
1103	6.35	0.115	64.2	0.67	17.94	-192	0.1	0.7			12.22	↓
1106	6.36	0.115	63.5	0.61	17.93	-191	0.1	0.7			12.22	clear
1109	6.36	0.115	63.3	0.59	17.90	-191	0.1	0.7			12.22	clear
1110	start to collect samples											

Analysis:

Groundwater

- GRO
- DRO
- VOCs
- SVOCs
- Total Lead

✓
✓
✓
✓
✓

Preservative

- HCL
- HCL
- HCL

HANDZ

Signed [Signature]

Notes:

**Field Calibration Sheet: HORIBA U-20XD series Multimeter**  
 pH, Conductivity, Turbidity, Dissolved Oxygen, Temperature, Salinity, Total Dissolved Solids, and ORP

DATE	8/7/12	TIME	8:30
PROJECT NAME			
PROJECT #	PHASE	TASK	
Unit Control #			

PAGE \_\_\_\_ of \_\_\_\_

**Auto Calibration**

- Place some of the pH 4 standard AutoCal solution into the calibration cup.
- Wash the sensors in distilled water several times
- Immerse the sensors into the solution and wait several minutes for the reading to stabilize.
- Press the CAL button once while in the pH measurement mode. Look for the AUTO and CAL functions to appear in the LCD display
- 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
- Press MEAS to return to measurement mode
- Cycle through the 5 parameters being calibrated and record the readings in the following table
- Repeat as necessary

AUTO 4 CALIBRATION					
Time	pH	Cond	Turb	DO	Temp
8:30	6.00	0.419	0.9	0.97	21.15

**Manual 2 point pH calibration**

- After the AutoCal procedure, rinse the sensors with distilled water several times.
- 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.
- Immerse the sensor into the solution and wait several minutes for the reading to stabilize.
- 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
- Use the UP/DOWN keys to adjust the pH value for temperature variations using the table at the end of this sheet
- Press the ENT key to start the calibration. The measured value and the DATA IN will blink until the calibration finishes.
- When the values stop flashing record the pH reading being displayed.
- Remove the sensors and rinse several times with distilled water.
- 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.
- Immerse the sensors into the solution and wait several minutes for the reading to stabilize.
- Press the CAL button once. Look for the MAN, SPAN and CAL functions to appear in the LCD display
- Use the UP/DOWN keys to adjust the pH value for temperature variations using the table at the end of this sheet
- Press the ENT key to start the calibration. The measured value and the DATA IN will blink until the calibration finishes.
- When the values stop flashing record the pH reading being displayed.
- Press the MEAS button to return to the measurement mode.

pH Calibration Buffer Temperature Adjustment Table				
Temperature Celsius	pH 4 Phthalate	pH 7 J. 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

Jimmy Song

DATE

8/7/12



**Field Calibration Sheet: HORIBA U-20XD series Multimeter**  
 pH, Conductivity, Turbidity, Dissolved Oxygen, Temperature, Salinity, Total Dissolved Solids, and ORP

DATE	08/07/12	TIME	8:15
PROJECT NAME	MLK - TIDEWATER		
PROJECT #	061992	PHASE	2012.2 TASK
Unit Control #	TRS RENTAL		

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
8:20	7.85	0.460	0.0	8.78	21.18

**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 times 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.

Temperature Celsius	pH 4 Phthalate	pH 7 N. phosphate	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

*[Handwritten Signature]*


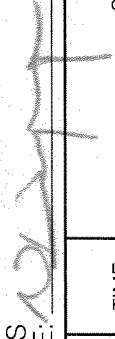
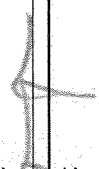
NAME

*N. Linspenger*

DATE

*08/07/12*

# CHAIN OF CUSTODY RECORD

 <b>CONESTOGA-ROVERS &amp; ASSOCIATES</b> 1117 TACOMA AVE. SOUTH TACOMA, WA 98402-2005		SHIPPED TO (Laboratory Name): LANCASTER LABORATORIES		REFERENCE NUMBER: 061992	
SAMPLER'S SIGNATURE: 		PRINTED NAME: <u>N. Linspey</u>		REMARKS	
SAMPLE No.		No. of Containers			
SEQ. No.	DATE	TIME	SAMPLE TYPE	PARAMETERS	REMARKS
	08/07	10:00	GW-080712-NH-MW10	X	
	08/07	12:00	GW-080712-NH-MW3	X	
	08/07	14:30	GW-080712-NH-MW5	X	
	08/07	9:50	GW-080712-JS-MW7	X	
	08/08	11:30	GW-080812-NH-MW9	X	
	08/08	13:30	GW-080812-NH-MW8	X	
	08/08		GW-080812-NH-FD1	X	
	08/08		GW-080812-NH-MW2	X	
	08/08	14:45	GW-080812-NH-MW1	X	
	08/07	14:20	GW-080712-JS-MW4	X	
	08/07	11:10	GW-080712-JS-MW6	X	
	08/08		TRIP BLANK	X	MS/MSD
TOTAL NUMBER OF CONTAINERS				HEALTH/CHEMICAL HAZARDS	
RELINQUISHED BY: 		DATE: 08/09/12		RECEIVED BY: _____	
		TIME: 12:00		DATE: _____	
RELINQUISHED BY: _____		DATE: _____		RECEIVED BY: _____	
		TIME: _____		DATE: _____	
RELINQUISHED BY: _____		DATE: _____		RECEIVED BY: _____	
		TIME: _____		DATE: _____	

METHOD OF SHIPMENT: \_\_\_\_\_ WAY BILL No. \_\_\_\_\_

White — Fully Executed Copy  
 Yellow — Receiving Laboratory Copy  
 Pink — Shipper Copy  
 Goldenrod — Sampler Copy

SAMPLE TEAM: N. Linspey  
J. Song

RECEIVED FOR LABORATORY BY: \_\_\_\_\_ NO: **CRA 20891**

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

1001 (D) APR 28/97(NF) REV. 0 (F-15)

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

## ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

Prepared for:

Conestoga-Rovers & Associates  
10969 Trade Center Drive  
Suite 107  
Rancho Cordova CA 95670

August 22, 2012

Project: 301233 Tidewater Seattle

Submittal Date: 08/10/2012  
Group Number: 1328127  
PO Number: 061992-2012.3  
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
GW-080712-NH-MW10 Water	6751353
GW-080712-NH-MW3 Water	6751354
GW-080712-NH-MW5 Water	6751355
GW-080712-JS-MW7 Water	6751356
GW-080812-NH-MW9 Water	6751357
GW-080812-NH-MW8 Water	6751358
GW-080812-NH-FD1 Water	6751359
GW-080812-NH-MW2 Water	6751360
GW-080812-NH-MW1 Water	6751361
GW-080812-NH-MW1_MS Water	6751362
GW-080812-NH-MW1_MSD Water	6751363
GW-080712-JS-MW4 Water	6751364
GW-080712-JS-MW6 Water	6751365
TRIP_BLANK Water	6751366

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

ELECTRONIC COPY TO	Conestoga-Rovers & Associates	Attn: Haroon Rahmani
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

COPY TO  
ELECTRONIC  
COPY TO  
ELECTRONIC  
COPY TO

Chevron

Attn: Anna Avina

Chevron c/o CRA

Attn: Report Contact

Respectfully Submitted,



Jill M. Parker  
Senior Specialist

(717) 556-7262

**Sample Description:** GW-080712-NH-MW10 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751353  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 10:00 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	11	6	1
10903	Benzene	71-43-2	1	0.5	1
10903	Bromobenzene	108-86-1	N.D.	1	1
10903	Bromochloromethane	74-97-5	N.D.	1	1
10903	Bromodichloromethane	75-27-4	N.D.	1	1
10903	Bromoform	75-25-2	N.D.	1	1
10903	Bromomethane	74-83-9	N.D.	1	1
10903	2-Butanone	78-93-3	N.D.	3	1
10903	n-Butylbenzene	104-51-8	N.D.	1	1
10903	sec-Butylbenzene	135-98-8	N.D.	1	1
10903	tert-Butylbenzene	98-06-6	N.D.	1	1
10903	Carbon Disulfide	75-15-0	N.D.	1	1
10903	Carbon Tetrachloride	56-23-5	N.D.	1	1
10903	Chlorobenzene	108-90-7	N.D.	0.8	1
10903	Chloroethane	75-00-3	N.D.	1	1
10903	Chloroform	67-66-3	N.D.	0.8	1
10903	Chloromethane	74-87-3	N.D.	1	1
10903	2-Chlorotoluene	95-49-8	N.D.	1	1
10903	4-Chlorotoluene	106-43-4	N.D.	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10903	Dibromochloromethane	124-48-1	N.D.	1	1
10903	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10903	Dibromomethane	74-95-3	N.D.	1	1
10903	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10903	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10903	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10903	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10903	1,1-Dichloroethane	75-34-3	N.D.	1	1
10903	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10903	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	2	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10903	1,2-Dichloropropane	78-87-5	N.D.	1	1
10903	1,3-Dichloropropane	142-28-9	N.D.	1	1
10903	2,2-Dichloropropane	594-20-7	N.D.	1	1
10903	1,1-Dichloropropene	563-58-6	N.D.	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10903	Ethylbenzene	100-41-4	N.D.	0.5	1
10903	Hexachlorobutadiene	87-68-3	N.D.	2	1
10903	2-Hexanone	591-78-6	N.D.	3	1
10903	Isopropylbenzene	98-82-8	4	1	1
10903	p-Isopropyltoluene	99-87-6	N.D.	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10903	Methylene Chloride	75-09-2	N.D.	2	1
10903	Naphthalene	91-20-3	N.D.	1	1
10903	n-Propylbenzene	103-65-1	10	1	1
10903	Styrene	100-42-5	N.D.	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

**Sample Description:** GW-080712-NH-MW10 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751353  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 10:00 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10903	Tetrachloroethene	127-18-4	N.D.	0.8	1
10903	Toluene	108-88-3	N.D.	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10903	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10903	Trichloroethene	79-01-6	N.D.	1	1
10903	Trichlorofluoromethane	75-69-4	N.D.	2	1
10903	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10903	Vinyl Chloride	75-01-4	36	1	1
10903	m+p-Xylene	179601-23-1	1	0.5	1
10903	o-Xylene	95-47-6	N.D.	0.5	1
10903	Xylene (Total)	1330-20-7	1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.0099	1
08357	Acenaphthylene	208-96-8	N.D.	0.0099	1
08357	Anthracene	120-12-7	N.D.	0.0099	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0099	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0099	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0099	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0099	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0099	1
08357	Chrysene	218-01-9	N.D.	0.0099	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0099	1
08357	Fluoranthene	206-44-0	N.D.	0.0099	1
08357	Fluorene	86-73-7	N.D.	0.0099	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0099	1
08357	Naphthalene	91-20-3	0.18	0.030	1
08357	Phenanthrene	85-01-8	N.D.	0.030	1
08357	Pyrene	129-00-0	N.D.	0.0099	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	110	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	130	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	N.D.	0.034	1

**Sample Description:** GW-080712-NH-MW10 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751353  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 10:00 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS10

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/17/2012 22:50	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/17/2012 22:50	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 19:12	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 15:08	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 15:08	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012 22:52	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:09	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1



**Sample Description:** GW-080712-NH-MW3 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751354  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 12:00 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	12	2
10903	Benzene	71-43-2	N.D.	1	2
10903	Bromobenzene	108-86-1	N.D.	2	2
10903	Bromochloromethane	74-97-5	N.D.	2	2
10903	Bromodichloromethane	75-27-4	N.D.	2	2
10903	Bromoform	75-25-2	N.D.	2	2
10903	Bromomethane	74-83-9	N.D.	2	2
10903	2-Butanone	78-93-3	N.D.	6	2
10903	n-Butylbenzene	104-51-8	6	2	2
10903	sec-Butylbenzene	135-98-8	6	2	2
10903	tert-Butylbenzene	98-06-6	N.D.	2	2
10903	Carbon Disulfide	75-15-0	N.D.	2	2
10903	Carbon Tetrachloride	56-23-5	N.D.	2	2
10903	Chlorobenzene	108-90-7	N.D.	2	2
10903	Chloroethane	75-00-3	N.D.	2	2
10903	Chloroform	67-66-3	N.D.	2	2
10903	Chloromethane	74-87-3	N.D.	2	2
10903	2-Chlorotoluene	95-49-8	N.D.	2	2
10903	4-Chlorotoluene	106-43-4	N.D.	2	2
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	4	2
10903	Dibromochloromethane	124-48-1	N.D.	2	2
10903	1,2-Dibromoethane	106-93-4	N.D.	1	2
10903	Dibromomethane	74-95-3	N.D.	2	2
10903	1,2-Dichlorobenzene	95-50-1	N.D.	2	2
10903	1,3-Dichlorobenzene	541-73-1	N.D.	2	2
10903	1,4-Dichlorobenzene	106-46-7	N.D.	2	2
10903	Dichlorodifluoromethane	75-71-8	N.D.	4	2
10903	1,1-Dichloroethane	75-34-3	N.D.	2	2
10903	1,2-Dichloroethane	107-06-2	N.D.	1	2
10903	1,1-Dichloroethene	75-35-4	N.D.	2	2
10903	cis-1,2-Dichloroethene	156-59-2	5	2	2
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	2	2
10903	1,2-Dichloropropane	78-87-5	N.D.	2	2
10903	1,3-Dichloropropane	142-28-9	N.D.	2	2
10903	2,2-Dichloropropane	594-20-7	N.D.	2	2
10903	1,1-Dichloropropene	563-58-6	N.D.	2	2
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	2	2
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	2	2
10903	Ethylbenzene	100-41-4	140	1	2
10903	Hexachlorobutadiene	87-68-3	N.D.	4	2
10903	2-Hexanone	591-78-6	N.D.	6	2
10903	Isopropylbenzene	98-82-8	33	2	2
10903	p-Isopropyltoluene	99-87-6	2	2	2
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	2
10903	4-Methyl-2-pentanone	108-10-1	N.D.	6	2
10903	Methylene Chloride	75-09-2	N.D.	4	2
10903	Naphthalene	91-20-3	71	2	2
10903	n-Propylbenzene	103-65-1	86	2	2
10903	Styrene	100-42-5	N.D.	2	2
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	2	2

**Sample Description:** GW-080712-NH-MW3 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751354  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 12:00 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	2	2
10903	Tetrachloroethene	127-18-4	N.D.	2	2
10903	Toluene	108-88-3	N.D.	1	2
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	2	2
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	2	2
10903	1,1,1-Trichloroethane	71-55-6	N.D.	2	2
10903	1,1,2-Trichloroethane	79-00-5	N.D.	2	2
10903	Trichloroethene	79-01-6	N.D.	2	2
10903	Trichlorofluoromethane	75-69-4	N.D.	4	2
10903	1,2,3-Trichloropropane	96-18-4	N.D.	2	2
10903	1,2,4-Trimethylbenzene	95-63-6	830	20	20
10903	1,3,5-Trimethylbenzene	108-67-8	140	2	2
10903	Vinyl Chloride	75-01-4	N.D.	2	2
10903	m+p-Xylene	179601-23-1	560	1	2
10903	o-Xylene	95-47-6	50	1	2
10903	Xylene (Total)	1330-20-7	610	1	2
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	0.032	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	0.053	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	0.067	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	55	0.57	20
08357	Phenanthrene	85-01-8	0.035	0.028	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	8,100	250	5
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	290	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	0.98	0.034	1

**Sample Description:** GW-080712-NH-MW3 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751354  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 12:00 by NH

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLS03

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/17/2012 23:11	Sarah A Guill	2
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/17/2012 23:32	Sarah A Guill	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/17/2012 23:11	Sarah A Guill	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y122303AA	08/17/2012 23:32	Sarah A Guill	20
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 19:44	Chad A Moline	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/14/2012 05:53	Mark A Clark	20
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 18:26	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 18:26	Marie D John	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012 23:15	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:10	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1

**Sample Description:** GW-080712-NH-MW5 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751355  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 14:30 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	6	1
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Bromobenzene	108-86-1	N.D.	1	1
10903	Bromochloromethane	74-97-5	N.D.	1	1
10903	Bromodichloromethane	75-27-4	N.D.	1	1
10903	Bromoform	75-25-2	N.D.	1	1
10903	Bromomethane	74-83-9	N.D.	1	1
10903	2-Butanone	78-93-3	N.D.	3	1
10903	n-Butylbenzene	104-51-8	2	1	1
10903	sec-Butylbenzene	135-98-8	2	1	1
10903	tert-Butylbenzene	98-06-6	N.D.	1	1
10903	Carbon Disulfide	75-15-0	N.D.	1	1
10903	Carbon Tetrachloride	56-23-5	N.D.	1	1
10903	Chlorobenzene	108-90-7	N.D.	0.8	1
10903	Chloroethane	75-00-3	N.D.	1	1
10903	Chloroform	67-66-3	N.D.	0.8	1
10903	Chloromethane	74-87-3	N.D.	1	1
10903	2-Chlorotoluene	95-49-8	N.D.	1	1
10903	4-Chlorotoluene	106-43-4	N.D.	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10903	Dibromochloromethane	124-48-1	N.D.	1	1
10903	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10903	Dibromomethane	74-95-3	N.D.	1	1
10903	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10903	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10903	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10903	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10903	1,1-Dichloroethane	75-34-3	N.D.	1	1
10903	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10903	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10903	1,2-Dichloropropane	78-87-5	N.D.	1	1
10903	1,3-Dichloropropane	142-28-9	N.D.	1	1
10903	2,2-Dichloropropane	594-20-7	N.D.	1	1
10903	1,1-Dichloropropene	563-58-6	N.D.	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10903	Ethylbenzene	100-41-4	11	0.5	1
10903	Hexachlorobutadiene	87-68-3	N.D.	2	1
10903	2-Hexanone	591-78-6	N.D.	3	1
10903	Isopropylbenzene	98-82-8	13	1	1
10903	p-Isopropyltoluene	99-87-6	N.D.	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10903	Methylene Chloride	75-09-2	N.D.	2	1
10903	Naphthalene	91-20-3	21	1	1
10903	n-Propylbenzene	103-65-1	32	1	1
10903	Styrene	100-42-5	N.D.	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

**Sample Description:** GW-080712-NH-MW5 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751355  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 14:30 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10903	Tetrachloroethene	127-18-4	N.D.	0.8	1
10903	Toluene	108-88-3	N.D.	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10903	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10903	Trichloroethene	79-01-6	N.D.	1	1
10903	Trichlorofluoromethane	75-69-4	N.D.	2	1
10903	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	33	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	12	1	1
10903	Vinyl Chloride	75-01-4	N.D.	1	1
10903	m+p-Xylene	179601-23-1	21	0.5	1
10903	o-Xylene	95-47-6	0.6	0.5	1
10903	Xylene (Total)	1330-20-7	22	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	0.11	0.010	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	1
08357	Anthracene	120-12-7	0.035	0.010	1
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(g,h,i)perylene	191-24-2	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	Fluoranthene	206-44-0	0.035	0.010	1
08357	Fluorene	86-73-7	0.095	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	Naphthalene	91-20-3	4.4	0.030	1
08357	Phenanthrene	85-01-8	N.D.	0.030	1
08357	Pyrene	129-00-0	0.030	0.010	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	610	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	190	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	5.1	0.034	1

**Sample Description:** GW-080712-NH-MW5 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751355  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 14:30 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS05

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/17/2012	23:53	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/17/2012	23:53	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012	20:17	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012	16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012	15:30	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012	15:30	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012	23:38	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012	10:25	Denise L Trimby	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012	18:12	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012	08:40	James L Mertz	1

**Sample Description:** GW-080712-JS-MW7 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751356  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 09:50 by JS

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	6	1
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Bromobenzene	108-86-1	N.D.	1	1
10903	Bromochloromethane	74-97-5	N.D.	1	1
10903	Bromodichloromethane	75-27-4	N.D.	1	1
10903	Bromoform	75-25-2	N.D.	1	1
10903	Bromomethane	74-83-9	N.D.	1	1
10903	2-Butanone	78-93-3	N.D.	3	1
10903	n-Butylbenzene	104-51-8	N.D.	1	1
10903	sec-Butylbenzene	135-98-8	N.D.	1	1
10903	tert-Butylbenzene	98-06-6	N.D.	1	1
10903	Carbon Disulfide	75-15-0	N.D.	1	1
10903	Carbon Tetrachloride	56-23-5	N.D.	1	1
10903	Chlorobenzene	108-90-7	N.D.	0.8	1
10903	Chloroethane	75-00-3	N.D.	1	1
10903	Chloroform	67-66-3	N.D.	0.8	1
10903	Chloromethane	74-87-3	N.D.	1	1
10903	2-Chlorotoluene	95-49-8	N.D.	1	1
10903	4-Chlorotoluene	106-43-4	N.D.	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10903	Dibromochloromethane	124-48-1	N.D.	1	1
10903	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10903	Dibromomethane	74-95-3	N.D.	1	1
10903	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10903	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10903	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10903	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10903	1,1-Dichloroethane	75-34-3	N.D.	1	1
10903	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10903	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	6	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10903	1,2-Dichloropropane	78-87-5	N.D.	1	1
10903	1,3-Dichloropropane	142-28-9	N.D.	1	1
10903	2,2-Dichloropropane	594-20-7	N.D.	1	1
10903	1,1-Dichloropropene	563-58-6	N.D.	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10903	Ethylbenzene	100-41-4	N.D.	0.5	1
10903	Hexachlorobutadiene	87-68-3	N.D.	2	1
10903	2-Hexanone	591-78-6	N.D.	3	1
10903	Isopropylbenzene	98-82-8	N.D.	1	1
10903	p-Isopropyltoluene	99-87-6	N.D.	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10903	Methylene Chloride	75-09-2	N.D.	2	1
10903	Naphthalene	91-20-3	N.D.	1	1
10903	n-Propylbenzene	103-65-1	N.D.	1	1
10903	Styrene	100-42-5	N.D.	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

**Sample Description:** GW-080712-JS-MW7 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751356  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 09:50 by JS

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10903	Tetrachloroethene	127-18-4	N.D.	0.8	1
10903	Toluene	108-88-3	N.D.	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10903	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10903	Trichloroethene	79-01-6	N.D.	1	1
10903	Trichlorofluoromethane	75-69-4	N.D.	2	1
10903	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10903	Vinyl Chloride	75-01-4	4	1	1
10903	m+p-Xylene	179601-23-1	N.D.	0.5	1
10903	o-Xylene	95-47-6	N.D.	0.5	1
10903	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	0.30	0.0095	1
08357	Benzo(a)anthracene	56-55-3	0.040	0.0095	1
08357	Benzo(a)pyrene	50-32-8	0.015	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	0.027	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	0.011	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	0.014	0.0095	1
08357	Chrysene	218-01-9	0.097	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	0.59	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.083	0.028	1
08357	Phenanthrene	85-01-8	N.D.	0.028	1
08357	Pyrene	129-00-0	0.53	0.0095	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	31.7	0.034	1



**Sample Description:** GW-080712-JS-MW7 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751356  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 09:50 by JS

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS07

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 00:14	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 00:14	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 20:49	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 15:52	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 15:52	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/21/2012 00:01	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:14	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1

**Sample Description:** GW-080812-NH-MW9 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751357  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 11:30 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	6	1
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Bromobenzene	108-86-1	N.D.	1	1
10903	Bromochloromethane	74-97-5	N.D.	1	1
10903	Bromodichloromethane	75-27-4	N.D.	1	1
10903	Bromoform	75-25-2	N.D.	1	1
10903	Bromomethane	74-83-9	N.D.	1	1
10903	2-Butanone	78-93-3	N.D.	3	1
10903	n-Butylbenzene	104-51-8	N.D.	1	1
10903	sec-Butylbenzene	135-98-8	N.D.	1	1
10903	tert-Butylbenzene	98-06-6	N.D.	1	1
10903	Carbon Disulfide	75-15-0	N.D.	1	1
10903	Carbon Tetrachloride	56-23-5	N.D.	1	1
10903	Chlorobenzene	108-90-7	N.D.	0.8	1
10903	Chloroethane	75-00-3	N.D.	1	1
10903	Chloroform	67-66-3	N.D.	0.8	1
10903	Chloromethane	74-87-3	N.D.	1	1
10903	2-Chlorotoluene	95-49-8	N.D.	1	1
10903	4-Chlorotoluene	106-43-4	N.D.	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10903	Dibromochloromethane	124-48-1	N.D.	1	1
10903	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10903	Dibromomethane	74-95-3	N.D.	1	1
10903	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10903	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10903	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10903	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10903	1,1-Dichloroethane	75-34-3	N.D.	1	1
10903	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10903	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	140	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	1	0.8	1
10903	1,2-Dichloropropane	78-87-5	N.D.	1	1
10903	1,3-Dichloropropane	142-28-9	N.D.	1	1
10903	2,2-Dichloropropane	594-20-7	N.D.	1	1
10903	1,1-Dichloropropene	563-58-6	N.D.	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10903	Ethylbenzene	100-41-4	N.D.	0.5	1
10903	Hexachlorobutadiene	87-68-3	N.D.	2	1
10903	2-Hexanone	591-78-6	N.D.	3	1
10903	Isopropylbenzene	98-82-8	N.D.	1	1
10903	p-Isopropyltoluene	99-87-6	N.D.	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10903	Methylene Chloride	75-09-2	N.D.	2	1
10903	Naphthalene	91-20-3	N.D.	1	1
10903	n-Propylbenzene	103-65-1	N.D.	1	1
10903	Styrene	100-42-5	N.D.	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

**Sample Description:** GW-080812-NH-MW9 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751357  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 11:30 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10903	Tetrachloroethene	127-18-4	100	0.8	1
10903	Toluene	108-88-3	N.D.	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10903	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10903	Trichloroethene	79-01-6	130	1	1
10903	Trichlorofluoromethane	75-69-4	N.D.	2	1
10903	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10903	Vinyl Chloride	75-01-4	8	1	1
10903	m+p-Xylene	179601-23-1	N.D.	0.5	1
10903	o-Xylene	95-47-6	N.D.	0.5	1
10903	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	1
08357	Anthracene	120-12-7	N.D.	0.010	1
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(g,h,i)perylene	191-24-2	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	Fluoranthene	206-44-0	N.D.	0.010	1
08357	Fluorene	86-73-7	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	Naphthalene	91-20-3	0.059	0.030	1
08357	Phenanthrene	85-01-8	N.D.	0.030	1
08357	Pyrene	129-00-0	N.D.	0.010	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
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
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	0.87	0.034	1

**Sample Description:** GW-080812-NH-MW9 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751357  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 11:30 by NH

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLS09

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 00:34	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 00:34	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 21:22	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 16:36	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 16:36	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012 20:12	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:16	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1

**Sample Description:** GW-080812-NH-MW8 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751358  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 13:30 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	12	2
10903	Benzene	71-43-2	N.D.	1	2
10903	Bromobenzene	108-86-1	N.D.	2	2
10903	Bromochloromethane	74-97-5	N.D.	2	2
10903	Bromodichloromethane	75-27-4	N.D.	2	2
10903	Bromoform	75-25-2	N.D.	2	2
10903	Bromomethane	74-83-9	N.D.	2	2
10903	2-Butanone	78-93-3	N.D.	6	2
10903	n-Butylbenzene	104-51-8	8	2	2
10903	sec-Butylbenzene	135-98-8	6	2	2
10903	tert-Butylbenzene	98-06-6	N.D.	2	2
10903	Carbon Disulfide	75-15-0	N.D.	2	2
10903	Carbon Tetrachloride	56-23-5	N.D.	2	2
10903	Chlorobenzene	108-90-7	N.D.	2	2
10903	Chloroethane	75-00-3	N.D.	2	2
10903	Chloroform	67-66-3	N.D.	2	2
10903	Chloromethane	74-87-3	N.D.	2	2
10903	2-Chlorotoluene	95-49-8	N.D.	2	2
10903	4-Chlorotoluene	106-43-4	N.D.	2	2
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	4	2
10903	Dibromochloromethane	124-48-1	N.D.	2	2
10903	1,2-Dibromoethane	106-93-4	N.D.	1	2
10903	Dibromomethane	74-95-3	N.D.	2	2
10903	1,2-Dichlorobenzene	95-50-1	N.D.	2	2
10903	1,3-Dichlorobenzene	541-73-1	N.D.	2	2
10903	1,4-Dichlorobenzene	106-46-7	N.D.	2	2
10903	Dichlorodifluoromethane	75-71-8	N.D.	4	2
10903	1,1-Dichloroethane	75-34-3	N.D.	2	2
10903	1,2-Dichloroethane	107-06-2	N.D.	1	2
10903	1,1-Dichloroethene	75-35-4	N.D.	2	2
10903	cis-1,2-Dichloroethene	156-59-2	3	2	2
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	2	2
10903	1,2-Dichloropropane	78-87-5	N.D.	2	2
10903	1,3-Dichloropropane	142-28-9	N.D.	2	2
10903	2,2-Dichloropropane	594-20-7	N.D.	2	2
10903	1,1-Dichloropropene	563-58-6	N.D.	2	2
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	2	2
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	2	2
10903	Ethylbenzene	100-41-4	92	1	2
10903	Hexachlorobutadiene	87-68-3	N.D.	4	2
10903	2-Hexanone	591-78-6	N.D.	6	2
10903	Isopropylbenzene	98-82-8	22	2	2
10903	p-Isopropyltoluene	99-87-6	4	2	2
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	2
10903	4-Methyl-2-pentanone	108-10-1	N.D.	6	2
10903	Methylene Chloride	75-09-2	N.D.	4	2
10903	Naphthalene	91-20-3	73	2	2
10903	n-Propylbenzene	103-65-1	49	2	2
10903	Styrene	100-42-5	N.D.	2	2
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	2	2

**Sample Description:** GW-080812-NH-MW8 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751358  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 13:30 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	2	2
10903	Tetrachloroethene	127-18-4	N.D.	2	2
10903	Toluene	108-88-3	N.D.	1	2
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	2	2
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	2	2
10903	1,1,1-Trichloroethane	71-55-6	N.D.	2	2
10903	1,1,2-Trichloroethane	79-00-5	N.D.	2	2
10903	Trichloroethene	79-01-6	N.D.	2	2
10903	Trichlorofluoromethane	75-69-4	N.D.	4	2
10903	1,2,3-Trichloropropane	96-18-4	N.D.	2	2
10903	1,2,4-Trimethylbenzene	95-63-6	910	20	20
10903	1,3,5-Trimethylbenzene	108-67-8	190	2	2
10903	Vinyl Chloride	75-01-4	N.D.	2	2
10903	m+p-Xylene	179601-23-1	690	1	2
10903	o-Xylene	95-47-6	160	1	2
10903	Xylene (Total)	1330-20-7	850	1	2
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	0.070	0.0096	1
08357	Acenaphthylene	208-96-8	0.020	0.0096	1
08357	Anthracene	120-12-7	0.016	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	0.14	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	56	0.58	20
08357	Phenanthrene	85-01-8	0.046	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	9,300	250	5
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	290	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	3.4	0.034	1

**Sample Description:** GW-080812-NH-MW8 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751358  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 13:30 by NH

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLS08

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 00:54	Sarah A Guill	2
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 01:15	Sarah A Guill	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 00:54	Sarah A Guill	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y122303AA	08/18/2012 01:15	Sarah A Guill	20
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 21:54	Chad A Moline	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/14/2012 06:26	Mark A Clark	20
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 18:47	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 18:47	Marie D John	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012 20:34	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:17	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1

**Sample Description:** GW-080812-NH-FD1 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751359  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 by NH

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLSFDF

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	12	2
10903	Benzene	71-43-2	N.D.	1	2
10903	Bromobenzene	108-86-1	N.D.	2	2
10903	Bromochloromethane	74-97-5	N.D.	2	2
10903	Bromodichloromethane	75-27-4	N.D.	2	2
10903	Bromoform	75-25-2	N.D.	2	2
10903	Bromomethane	74-83-9	N.D.	2	2
10903	2-Butanone	78-93-3	N.D.	6	2
10903	n-Butylbenzene	104-51-8	7	2	2
10903	sec-Butylbenzene	135-98-8	5	2	2
10903	tert-Butylbenzene	98-06-6	N.D.	2	2
10903	Carbon Disulfide	75-15-0	N.D.	2	2
10903	Carbon Tetrachloride	56-23-5	N.D.	2	2
10903	Chlorobenzene	108-90-7	N.D.	2	2
10903	Chloroethane	75-00-3	N.D.	2	2
10903	Chloroform	67-66-3	N.D.	2	2
10903	Chloromethane	74-87-3	N.D.	2	2
10903	2-Chlorotoluene	95-49-8	N.D.	2	2
10903	4-Chlorotoluene	106-43-4	N.D.	2	2
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	4	2
10903	Dibromochloromethane	124-48-1	N.D.	2	2
10903	1,2-Dibromoethane	106-93-4	N.D.	1	2
10903	Dibromomethane	74-95-3	N.D.	2	2
10903	1,2-Dichlorobenzene	95-50-1	N.D.	2	2
10903	1,3-Dichlorobenzene	541-73-1	N.D.	2	2
10903	1,4-Dichlorobenzene	106-46-7	N.D.	2	2
10903	Dichlorodifluoromethane	75-71-8	N.D.	4	2
10903	1,1-Dichloroethane	75-34-3	N.D.	2	2
10903	1,2-Dichloroethane	107-06-2	N.D.	1	2
10903	1,1-Dichloroethene	75-35-4	N.D.	2	2
10903	cis-1,2-Dichloroethene	156-59-2	3	2	2
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	2	2
10903	1,2-Dichloropropane	78-87-5	N.D.	2	2
10903	1,3-Dichloropropane	142-28-9	N.D.	2	2
10903	2,2-Dichloropropane	594-20-7	N.D.	2	2
10903	1,1-Dichloropropene	563-58-6	N.D.	2	2
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	2	2
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	2	2
10903	Ethylbenzene	100-41-4	83	1	2
10903	Hexachlorobutadiene	87-68-3	N.D.	4	2
10903	2-Hexanone	591-78-6	N.D.	6	2
10903	Isopropylbenzene	98-82-8	20	2	2
10903	p-Isopropyltoluene	99-87-6	3	2	2
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	2
10903	4-Methyl-2-pentanone	108-10-1	N.D.	6	2
10903	Methylene Chloride	75-09-2	N.D.	4	2
10903	Naphthalene	91-20-3	67	2	2
10903	n-Propylbenzene	103-65-1	44	2	2
10903	Styrene	100-42-5	N.D.	2	2
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	2	2



**Sample Description:** GW-080812-NH-FD1 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751359  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLSFD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	2	2
10903	Tetrachloroethene	127-18-4	N.D.	2	2
10903	Toluene	108-88-3	N.D.	1	2
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	2	2
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	2	2
10903	1,1,1-Trichloroethane	71-55-6	N.D.	2	2
10903	1,1,2-Trichloroethane	79-00-5	N.D.	2	2
10903	Trichloroethene	79-01-6	N.D.	2	2
10903	Trichlorofluoromethane	75-69-4	N.D.	4	2
10903	1,2,3-Trichloropropane	96-18-4	N.D.	2	2
10903	1,2,4-Trimethylbenzene	95-63-6	680	20	20
10903	1,3,5-Trimethylbenzene	108-67-8	140	2	2
10903	Vinyl Chloride	75-01-4	N.D.	2	2
10903	m+p-Xylene	179601-23-1	570	1	2
10903	o-Xylene	95-47-6	140	1	2
10903	Xylene (Total)	1330-20-7	710	1	2
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	0.071	0.0099	1
08357	Acenaphthylene	208-96-8	0.017	0.0099	1
08357	Anthracene	120-12-7	0.014	0.0099	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0099	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0099	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0099	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0099	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0099	1
08357	Chrysene	218-01-9	N.D.	0.0099	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0099	1
08357	Fluoranthene	206-44-0	N.D.	0.0099	1
08357	Fluorene	86-73-7	0.14	0.0099	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0099	1
08357	Naphthalene	91-20-3	44	0.60	20
08357	Phenanthrene	85-01-8	0.052	0.030	1
08357	Pyrene	129-00-0	N.D.	0.0099	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	11,000	250	5
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	240	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	3.6	0.034	1

**Sample Description:** GW-080812-NH-FD1 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751359  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 by NH

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLSFD

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 01:36	Sarah A Guill	2
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 01:56	Sarah A Guill	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 01:36	Sarah A Guill	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y122303AA	08/18/2012 01:56	Sarah A Guill	20
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 22:27	Chad A Moline	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/14/2012 06:58	Mark A Clark	20
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 19:09	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 19:09	Marie D John	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012 20:58	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:19	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1

**Sample Description:** GW-080812-NH-MW2 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751360  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 09:45 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	6	1
10903	Benzene	71-43-2	0.9	0.5	1
10903	Bromobenzene	108-86-1	N.D.	1	1
10903	Bromochloromethane	74-97-5	N.D.	1	1
10903	Bromodichloromethane	75-27-4	N.D.	1	1
10903	Bromoform	75-25-2	N.D.	1	1
10903	Bromomethane	74-83-9	N.D.	1	1
10903	2-Butanone	78-93-3	N.D.	3	1
10903	n-Butylbenzene	104-51-8	3	1	1
10903	sec-Butylbenzene	135-98-8	4	1	1
10903	tert-Butylbenzene	98-06-6	N.D.	1	1
10903	Carbon Disulfide	75-15-0	N.D.	1	1
10903	Carbon Tetrachloride	56-23-5	N.D.	1	1
10903	Chlorobenzene	108-90-7	N.D.	0.8	1
10903	Chloroethane	75-00-3	N.D.	1	1
10903	Chloroform	67-66-3	N.D.	0.8	1
10903	Chloromethane	74-87-3	N.D.	1	1
10903	2-Chlorotoluene	95-49-8	N.D.	1	1
10903	4-Chlorotoluene	106-43-4	N.D.	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10903	Dibromochloromethane	124-48-1	N.D.	1	1
10903	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10903	Dibromomethane	74-95-3	N.D.	1	1
10903	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10903	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10903	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10903	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10903	1,1-Dichloroethane	75-34-3	N.D.	1	1
10903	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10903	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10903	1,2-Dichloropropane	78-87-5	N.D.	1	1
10903	1,3-Dichloropropane	142-28-9	N.D.	1	1
10903	2,2-Dichloropropane	594-20-7	N.D.	1	1
10903	1,1-Dichloropropene	563-58-6	N.D.	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10903	Ethylbenzene	100-41-4	N.D.	0.5	1
10903	Hexachlorobutadiene	87-68-3	N.D.	2	1
10903	2-Hexanone	591-78-6	N.D.	3	1
10903	Isopropylbenzene	98-82-8	24	1	1
10903	p-Isopropyltoluene	99-87-6	N.D.	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10903	Methylene Chloride	75-09-2	N.D.	2	1
10903	Naphthalene	91-20-3	N.D.	1	1
10903	n-Propylbenzene	103-65-1	48	1	1
10903	Styrene	100-42-5	N.D.	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

**Sample Description:** GW-080812-NH-MW2 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751360  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 09:45 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10903	Tetrachloroethene	127-18-4	N.D.	0.8	1
10903	Toluene	108-88-3	N.D.	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10903	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10903	Trichloroethene	79-01-6	N.D.	1	1
10903	Trichlorofluoromethane	75-69-4	N.D.	2	1
10903	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10903	Vinyl Chloride	75-01-4	N.D.	1	1
10903	m+p-Xylene	179601-23-1	0.5	0.5	1
10903	o-Xylene	95-47-6	N.D.	0.5	1
10903	Xylene (Total)	1330-20-7	0.5	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	0.44	0.010	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	1
08357	Anthracene	120-12-7	0.081	0.010	1
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(g,h,i)perylene	191-24-2	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	Fluoranthene	206-44-0	0.027	0.010	1
08357	Fluorene	86-73-7	0.35	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	Naphthalene	91-20-3	0.52	0.030	1
08357	Phenanthrene	85-01-8	0.29	0.030	1
08357	Pyrene	129-00-0	0.015	0.010	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	670	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
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
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	8.3	0.034	1

**Sample Description:** GW-080812-NH-MW2 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751360  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 09:45 by NH

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLS02

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 02:17	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 02:17	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 23:00	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 16:58	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 16:58	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012 21:20	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:25	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1

**Sample Description:** GW-080812-NH-MW1 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751361  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 14:45 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	6	1
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Bromobenzene	108-86-1	N.D.	1	1
10903	Bromochloromethane	74-97-5	N.D.	1	1
10903	Bromodichloromethane	75-27-4	N.D.	1	1
10903	Bromoform	75-25-2	N.D.	1	1
10903	Bromomethane	74-83-9	N.D.	1	1
10903	2-Butanone	78-93-3	N.D.	3	1
10903	n-Butylbenzene	104-51-8	N.D.	1	1
10903	sec-Butylbenzene	135-98-8	N.D.	1	1
10903	tert-Butylbenzene	98-06-6	N.D.	1	1
10903	Carbon Disulfide	75-15-0	N.D.	1	1
10903	Carbon Tetrachloride	56-23-5	N.D.	1	1
10903	Chlorobenzene	108-90-7	N.D.	0.8	1
10903	Chloroethane	75-00-3	N.D.	1	1
10903	Chloroform	67-66-3	N.D.	0.8	1
10903	Chloromethane	74-87-3	N.D.	1	1
10903	2-Chlorotoluene	95-49-8	N.D.	1	1
10903	4-Chlorotoluene	106-43-4	N.D.	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10903	Dibromochloromethane	124-48-1	N.D.	1	1
10903	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10903	Dibromomethane	74-95-3	N.D.	1	1
10903	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10903	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10903	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10903	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10903	1,1-Dichloroethane	75-34-3	N.D.	1	1
10903	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10903	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	26	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10903	1,2-Dichloropropane	78-87-5	N.D.	1	1
10903	1,3-Dichloropropane	142-28-9	N.D.	1	1
10903	2,2-Dichloropropane	594-20-7	N.D.	1	1
10903	1,1-Dichloropropene	563-58-6	N.D.	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10903	Ethylbenzene	100-41-4	N.D.	0.5	1
10903	Hexachlorobutadiene	87-68-3	N.D.	2	1
10903	2-Hexanone	591-78-6	N.D.	3	1
10903	Isopropylbenzene	98-82-8	N.D.	1	1
10903	p-Isopropyltoluene	99-87-6	N.D.	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10903	Methylene Chloride	75-09-2	N.D.	2	1
10903	Naphthalene	91-20-3	N.D.	1	1
10903	n-Propylbenzene	103-65-1	N.D.	1	1
10903	Styrene	100-42-5	N.D.	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

**Sample Description:** GW-080812-NH-MW1 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751361  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 14:45 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10903	Tetrachloroethene	127-18-4	5	0.8	1
10903	Toluene	108-88-3	N.D.	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10903	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10903	Trichloroethene	79-01-6	9	1	1
10903	Trichlorofluoromethane	75-69-4	N.D.	2	1
10903	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10903	Vinyl Chloride	75-01-4	1	1	1
10903	m+p-Xylene	179601-23-1	N.D.	0.5	1
10903	o-Xylene	95-47-6	N.D.	0.5	1
10903	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.052	0.028	1
08357	Phenanthrene	85-01-8	N.D.	0.028	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
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
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	0.32	0.034	1

**Sample Description:** GW-080812-NH-MW1 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751361  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 14:45 by NH

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLS01

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 02:38	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 02:38	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 14:19	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 17:20	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 17:20	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012 21:43	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:26	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1



**Sample Description:** GW-080812-NH-MW1\_MS Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751362  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 14:45 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

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Rancho Cordova CA 95670

MLS01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	140	6	1
10903	Benzene	71-43-2	21	0.5	1
10903	Bromobenzene	108-86-1	20	1	1
10903	Bromochloromethane	74-97-5	19	1	1
10903	Bromodichloromethane	75-27-4	20	1	1
10903	Bromoform	75-25-2	15	1	1
10903	Bromomethane	74-83-9	16	1	1
10903	2-Butanone	78-93-3	140	3	1
10903	n-Butylbenzene	104-51-8	20	1	1
10903	sec-Butylbenzene	135-98-8	21	1	1
10903	tert-Butylbenzene	98-06-6	20	1	1
10903	Carbon Disulfide	75-15-0	18	1	1
10903	Carbon Tetrachloride	56-23-5	22	1	1
10903	Chlorobenzene	108-90-7	20	0.8	1
10903	Chloroethane	75-00-3	16	1	1
10903	Chloroform	67-66-3	20	0.8	1
10903	Chloromethane	74-87-3	16	1	1
10903	2-Chlorotoluene	95-49-8	20	1	1
10903	4-Chlorotoluene	106-43-4	20	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	18	2	1
10903	Dibromochloromethane	124-48-1	19	1	1
10903	1,2-Dibromoethane	106-93-4	20	0.5	1
10903	Dibromomethane	74-95-3	20	1	1
10903	1,2-Dichlorobenzene	95-50-1	20	1	1
10903	1,3-Dichlorobenzene	541-73-1	19	1	1
10903	1,4-Dichlorobenzene	106-46-7	20	1	1
10903	Dichlorodifluoromethane	75-71-8	17	2	1
10903	1,1-Dichloroethane	75-34-3	21	1	1
10903	1,2-Dichloroethane	107-06-2	20	0.5	1
10903	1,1-Dichloroethene	75-35-4	22	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	49	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	22	0.8	1
10903	1,2-Dichloropropane	78-87-5	20	1	1
10903	1,3-Dichloropropane	142-28-9	20	1	1
10903	2,2-Dichloropropane	594-20-7	21	1	1
10903	1,1-Dichloropropene	563-58-6	22	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	19	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	18	1	1
10903	Ethylbenzene	100-41-4	21	0.5	1
10903	Hexachlorobutadiene	87-68-3	19	2	1
10903	2-Hexanone	591-78-6	89	3	1
10903	Isopropylbenzene	98-82-8	21	1	1
10903	p-Isopropyltoluene	99-87-6	20	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	20	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	90	3	1
10903	Methylene Chloride	75-09-2	20	2	1
10903	Naphthalene	91-20-3	19	1	1
10903	n-Propylbenzene	103-65-1	21	1	1
10903	Styrene	100-42-5	19	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	20	1	1

**Sample Description:** GW-080812-NH-MW1\_MS Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751362  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 14:45 by NH

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLS01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	20	1	1
10903	Tetrachloroethene	127-18-4	26	0.8	1
10903	Toluene	108-88-3	21	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	18	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	19	1	1
10903	1,1,1-Trichloroethane	71-55-6	19	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	20	0.8	1
10903	Trichloroethene	79-01-6	31	1	1
10903	Trichlorofluoromethane	75-69-4	21	2	1
10903	1,2,3-Trichloropropane	96-18-4	19	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	20	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	20	1	1
10903	Vinyl Chloride	75-01-4	19	1	1
10903	m+p-Xylene	179601-23-1	41	0.5	1
10903	o-Xylene	95-47-6	20	0.5	1
10903	Xylene (Total)	1330-20-7	62	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	1.1	0.0099	1
08357	Acenaphthylene	208-96-8	1.1	0.0099	1
08357	Anthracene	120-12-7	1.1	0.0099	1
08357	Benzo(a)anthracene	56-55-3	1.1	0.0099	1
08357	Benzo(a)pyrene	50-32-8	1.0	0.0099	1
08357	Benzo(b)fluoranthene	205-99-2	1.1	0.0099	1
08357	Benzo(g,h,i)perylene	191-24-2	1.1	0.0099	1
08357	Benzo(k)fluoranthene	207-08-9	0.92	0.0099	1
08357	Chrysene	218-01-9	0.98	0.0099	1
08357	Dibenz(a,h)anthracene	53-70-3	1.1	0.0099	1
08357	Fluoranthene	206-44-0	1.0	0.0099	1
08357	Fluorene	86-73-7	1.0	0.0099	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	0.0099	1
08357	Naphthalene	91-20-3	1.0	0.030	1
08357	Phenanthrene	85-01-8	1.0	0.030	1
08357	Pyrene	129-00-0	1.1	0.0099	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	870	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	1,300	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

**Sample Description:** GW-080812-NH-MW1\_MS Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751362  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 14:45 by NH

Conestoga-Rovers & Associates

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Suite 107

Rancho Cordova CA 95670

MLS01

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 02:58	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 02:58	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 14:52	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 19:31	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 19:31	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012 22:06	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1

**Sample Description:** GW-080812-NH-MW1\_MSD Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751363  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 14:45 by NH

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Rancho Cordova CA 95670

MLS01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	140	6	1
10903	Benzene	71-43-2	21	0.5	1
10903	Bromobenzene	108-86-1	20	1	1
10903	Bromochloromethane	74-97-5	19	1	1
10903	Bromodichloromethane	75-27-4	19	1	1
10903	Bromoform	75-25-2	15	1	1
10903	Bromomethane	74-83-9	16	1	1
10903	2-Butanone	78-93-3	140	3	1
10903	n-Butylbenzene	104-51-8	21	1	1
10903	sec-Butylbenzene	135-98-8	21	1	1
10903	tert-Butylbenzene	98-06-6	21	1	1
10903	Carbon Disulfide	75-15-0	18	1	1
10903	Carbon Tetrachloride	56-23-5	22	1	1
10903	Chlorobenzene	108-90-7	21	0.8	1
10903	Chloroethane	75-00-3	16	1	1
10903	Chloroform	67-66-3	20	0.8	1
10903	Chloromethane	74-87-3	16	1	1
10903	2-Chlorotoluene	95-49-8	21	1	1
10903	4-Chlorotoluene	106-43-4	20	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	18	2	1
10903	Dibromochloromethane	124-48-1	19	1	1
10903	1,2-Dibromoethane	106-93-4	20	0.5	1
10903	Dibromomethane	74-95-3	20	1	1
10903	1,2-Dichlorobenzene	95-50-1	20	1	1
10903	1,3-Dichlorobenzene	541-73-1	19	1	1
10903	1,4-Dichlorobenzene	106-46-7	20	1	1
10903	Dichlorodifluoromethane	75-71-8	17	2	1
10903	1,1-Dichloroethane	75-34-3	21	1	1
10903	1,2-Dichloroethane	107-06-2	20	0.5	1
10903	1,1-Dichloroethene	75-35-4	22	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	48	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	22	0.8	1
10903	1,2-Dichloropropane	78-87-5	20	1	1
10903	1,3-Dichloropropane	142-28-9	20	1	1
10903	2,2-Dichloropropane	594-20-7	21	1	1
10903	1,1-Dichloropropene	563-58-6	22	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	19	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	18	1	1
10903	Ethylbenzene	100-41-4	21	0.5	1
10903	Hexachlorobutadiene	87-68-3	20	2	1
10903	2-Hexanone	591-78-6	90	3	1
10903	Isopropylbenzene	98-82-8	21	1	1
10903	p-Isopropyltoluene	99-87-6	21	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	20	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	92	3	1
10903	Methylene Chloride	75-09-2	20	2	1
10903	Naphthalene	91-20-3	19	1	1
10903	n-Propylbenzene	103-65-1	22	1	1
10903	Styrene	100-42-5	19	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	20	1	1

**Sample Description:** GW-080812-NH-MW1\_MSD Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751363  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 14:45 by NH

Conestoga-Rovers & Associates

10969 Trade Center Drive

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Suite 107

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Rancho Cordova CA 95670

MLS01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	20	1	1
10903	Tetrachloroethene	127-18-4	26	0.8	1
10903	Toluene	108-88-3	21	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	19	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	20	1	1
10903	1,1,1-Trichloroethane	71-55-6	19	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	21	0.8	1
10903	Trichloroethene	79-01-6	31	1	1
10903	Trichlorofluoromethane	75-69-4	21	2	1
10903	1,2,3-Trichloropropane	96-18-4	19	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	20	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	21	1	1
10903	Vinyl Chloride	75-01-4	18	1	1
10903	m+p-Xylene	179601-23-1	42	0.5	1
10903	o-Xylene	95-47-6	20	0.5	1
10903	Xylene (Total)	1330-20-7	62	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	1.1	0.0095	1
08357	Acenaphthylene	208-96-8	1.1	0.0095	1
08357	Anthracene	120-12-7	1.0	0.0095	1
08357	Benzo(a)anthracene	56-55-3	1.0	0.0095	1
08357	Benzo(a)pyrene	50-32-8	0.98	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	1.0	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	0.98	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	0.88	0.0095	1
08357	Chrysene	218-01-9	0.93	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	0.98	0.0095	1
08357	Fluoranthene	206-44-0	0.99	0.0095	1
08357	Fluorene	86-73-7	1.0	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.99	0.0095	1
08357	Naphthalene	91-20-3	1.0	0.028	1
08357	Phenanthrene	85-01-8	0.97	0.028	1
08357	Pyrene	129-00-0	1.1	0.0095	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	1,100	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	1,100	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

**Sample Description:** GW-080812-NH-MW1\_MSD Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751363  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012 14:45 by NH

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLS01

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 03:19	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 03:19	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/13/2012 15:25	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 19:53	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 19:53	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122250019A	08/20/2012 22:29	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122250019A	08/14/2012 10:25	Denise L Trimby	1

**Sample Description:** GW-080712-JS-MW4 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751364  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 14:20 by JS

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	6	1
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Bromobenzene	108-86-1	N.D.	1	1
10903	Bromochloromethane	74-97-5	N.D.	1	1
10903	Bromodichloromethane	75-27-4	N.D.	1	1
10903	Bromoform	75-25-2	N.D.	1	1
10903	Bromomethane	74-83-9	N.D.	1	1
10903	2-Butanone	78-93-3	N.D.	3	1
10903	n-Butylbenzene	104-51-8	N.D.	1	1
10903	sec-Butylbenzene	135-98-8	N.D.	1	1
10903	tert-Butylbenzene	98-06-6	N.D.	1	1
10903	Carbon Disulfide	75-15-0	N.D.	1	1
10903	Carbon Tetrachloride	56-23-5	N.D.	1	1
10903	Chlorobenzene	108-90-7	N.D.	0.8	1
10903	Chloroethane	75-00-3	N.D.	1	1
10903	Chloroform	67-66-3	N.D.	0.8	1
10903	Chloromethane	74-87-3	N.D.	1	1
10903	2-Chlorotoluene	95-49-8	N.D.	1	1
10903	4-Chlorotoluene	106-43-4	N.D.	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10903	Dibromochloromethane	124-48-1	N.D.	1	1
10903	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10903	Dibromomethane	74-95-3	N.D.	1	1
10903	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10903	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10903	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10903	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10903	1,1-Dichloroethane	75-34-3	N.D.	1	1
10903	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10903	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10903	1,2-Dichloropropane	78-87-5	N.D.	1	1
10903	1,3-Dichloropropane	142-28-9	N.D.	1	1
10903	2,2-Dichloropropane	594-20-7	N.D.	1	1
10903	1,1-Dichloropropene	563-58-6	N.D.	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10903	Ethylbenzene	100-41-4	N.D.	0.5	1
10903	Hexachlorobutadiene	87-68-3	N.D.	2	1
10903	2-Hexanone	591-78-6	N.D.	3	1
10903	Isopropylbenzene	98-82-8	N.D.	1	1
10903	p-Isopropyltoluene	99-87-6	N.D.	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10903	Methylene Chloride	75-09-2	N.D.	2	1
10903	Naphthalene	91-20-3	N.D.	1	1
10903	n-Propylbenzene	103-65-1	N.D.	1	1
10903	Styrene	100-42-5	N.D.	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

**Sample Description:** GW-080712-JS-MW4 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751364  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 14:20 by JS

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10903	Tetrachloroethene	127-18-4	N.D.	0.8	1
10903	Toluene	108-88-3	N.D.	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10903	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10903	Trichloroethene	79-01-6	N.D.	1	1
10903	Trichlorofluoromethane	75-69-4	N.D.	2	1
10903	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10903	Vinyl Chloride	75-01-4	N.D.	1	1
10903	m+p-Xylene	179601-23-1	N.D.	0.5	1
10903	o-Xylene	95-47-6	N.D.	0.5	1
10903	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.0097	1
08357	Acenaphthylene	208-96-8	N.D.	0.0097	1
08357	Anthracene	120-12-7	N.D.	0.0097	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0097	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0097	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0097	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0097	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0097	1
08357	Chrysene	218-01-9	N.D.	0.0097	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0097	1
08357	Fluoranthene	206-44-0	N.D.	0.0097	1
08357	Fluorene	86-73-7	N.D.	0.0097	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0097	1
08357	Naphthalene	91-20-3	0.039	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0097	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	0.34	0.034	1



**Sample Description:** GW-080712-JS-MW4 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751364  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 14:20 by JS

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLS04

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 03:39	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 03:39	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/14/2012 04:48	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 17:42	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 17:42	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122270024A	08/16/2012 23:45	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122270024A	08/15/2012 09:20	Catherine R Wiker	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:28	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1

**Sample Description:** GW-080712-JS-MW6 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751365  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 11:10 by JS

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	6	1
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Bromobenzene	108-86-1	N.D.	1	1
10903	Bromochloromethane	74-97-5	N.D.	1	1
10903	Bromodichloromethane	75-27-4	N.D.	1	1
10903	Bromoform	75-25-2	N.D.	1	1
10903	Bromomethane	74-83-9	N.D.	1	1
10903	2-Butanone	78-93-3	N.D.	3	1
10903	n-Butylbenzene	104-51-8	N.D.	1	1
10903	sec-Butylbenzene	135-98-8	N.D.	1	1
10903	tert-Butylbenzene	98-06-6	N.D.	1	1
10903	Carbon Disulfide	75-15-0	N.D.	1	1
10903	Carbon Tetrachloride	56-23-5	N.D.	1	1
10903	Chlorobenzene	108-90-7	N.D.	0.8	1
10903	Chloroethane	75-00-3	N.D.	1	1
10903	Chloroform	67-66-3	N.D.	0.8	1
10903	Chloromethane	74-87-3	N.D.	1	1
10903	2-Chlorotoluene	95-49-8	N.D.	1	1
10903	4-Chlorotoluene	106-43-4	N.D.	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10903	Dibromochloromethane	124-48-1	N.D.	1	1
10903	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10903	Dibromomethane	74-95-3	N.D.	1	1
10903	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10903	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10903	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10903	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10903	1,1-Dichloroethane	75-34-3	N.D.	1	1
10903	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10903	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10903	1,2-Dichloropropane	78-87-5	N.D.	1	1
10903	1,3-Dichloropropane	142-28-9	N.D.	1	1
10903	2,2-Dichloropropane	594-20-7	N.D.	1	1
10903	1,1-Dichloropropene	563-58-6	N.D.	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10903	Ethylbenzene	100-41-4	N.D.	0.5	1
10903	Hexachlorobutadiene	87-68-3	N.D.	2	1
10903	2-Hexanone	591-78-6	N.D.	3	1
10903	Isopropylbenzene	98-82-8	N.D.	1	1
10903	p-Isopropyltoluene	99-87-6	N.D.	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10903	Methylene Chloride	75-09-2	N.D.	2	1
10903	Naphthalene	91-20-3	N.D.	1	1
10903	n-Propylbenzene	103-65-1	N.D.	1	1
10903	Styrene	100-42-5	N.D.	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

**Sample Description:** GW-080712-JS-MW6 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751365  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 11:10 by JS

Conestoga-Rovers & Associates

10969 Trade Center Drive

Submitted: 08/10/2012 09:20

Suite 107

Reported: 08/22/2012 18:20

Rancho Cordova CA 95670

MLS06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10903	Tetrachloroethene	127-18-4	N.D.	0.8	1
10903	Toluene	108-88-3	N.D.	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10903	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10903	Trichloroethene	79-01-6	N.D.	1	1
10903	Trichlorofluoromethane	75-69-4	N.D.	2	1
10903	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10903	Vinyl Chloride	75-01-4	N.D.	1	1
10903	m+p-Xylene	179601-23-1	N.D.	0.5	1
10903	o-Xylene	95-47-6	N.D.	0.5	1
10903	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.042	0.028	1
08357	Phenanthrene	85-01-8	N.D.	0.028	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Petroleum ECY 97-602 NWTPH-Dx</b>			<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
<b>Metals SW-846 6020</b>			<b>ug/l</b>	<b>ug/l</b>	
06035	Lead	7439-92-1	0.15	0.034	1

**Sample Description:** GW-080712-JS-MW6 Water  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LLI Sample # WW 6751365  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/07/2012 11:10 by JS

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLS06

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 04:00	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 04:00	Sarah A Guill	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12223WAJ026	08/14/2012 05:20	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12223WAJ026	08/12/2012 16:20	Nicholas W Shroyer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 18:04	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 18:04	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	122270024A	08/17/2012 00:08	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	122270024A	08/15/2012 09:20	Catherine R Wiker	1
06035	Lead	SW-846 6020	1	122246050003A	08/14/2012 18:30	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122246050003	08/13/2012 08:40	James L Mertz	1

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

LLI Sample # WW 6751366  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLSTB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10903	Acetone	67-64-1	N.D.	6	1
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Bromobenzene	108-86-1	N.D.	1	1
10903	Bromochloromethane	74-97-5	N.D.	1	1
10903	Bromodichloromethane	75-27-4	N.D.	1	1
10903	Bromoform	75-25-2	N.D.	1	1
10903	Bromomethane	74-83-9	N.D.	1	1
10903	2-Butanone	78-93-3	N.D.	3	1
10903	n-Butylbenzene	104-51-8	N.D.	1	1
10903	sec-Butylbenzene	135-98-8	N.D.	1	1
10903	tert-Butylbenzene	98-06-6	N.D.	1	1
10903	Carbon Disulfide	75-15-0	N.D.	1	1
10903	Carbon Tetrachloride	56-23-5	N.D.	1	1
10903	Chlorobenzene	108-90-7	N.D.	0.8	1
10903	Chloroethane	75-00-3	N.D.	1	1
10903	Chloroform	67-66-3	N.D.	0.8	1
10903	Chloromethane	74-87-3	N.D.	1	1
10903	2-Chlorotoluene	95-49-8	N.D.	1	1
10903	4-Chlorotoluene	106-43-4	N.D.	1	1
10903	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10903	Dibromochloromethane	124-48-1	N.D.	1	1
10903	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10903	Dibromomethane	74-95-3	N.D.	1	1
10903	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10903	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10903	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10903	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10903	1,1-Dichloroethane	75-34-3	N.D.	1	1
10903	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10903	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10903	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10903	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10903	1,2-Dichloropropane	78-87-5	N.D.	1	1
10903	1,3-Dichloropropane	142-28-9	N.D.	1	1
10903	2,2-Dichloropropane	594-20-7	N.D.	1	1
10903	1,1-Dichloropropene	563-58-6	N.D.	1	1
10903	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10903	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10903	Ethylbenzene	100-41-4	N.D.	0.5	1
10903	Hexachlorobutadiene	87-68-3	N.D.	2	1
10903	2-Hexanone	591-78-6	N.D.	3	1
10903	Isopropylbenzene	98-82-8	N.D.	1	1
10903	p-Isopropyltoluene	99-87-6	N.D.	1	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10903	Methylene Chloride	75-09-2	N.D.	2	1
10903	Naphthalene	91-20-3	N.D.	1	1
10903	n-Propylbenzene	103-65-1	N.D.	1	1
10903	Styrene	100-42-5	N.D.	1	1
10903	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1

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

LLI Sample # WW 6751366  
LLI Group # 1328127  
Account # 13534

**Project Name:** 301233 Tidewater Seattle

Collected: 08/08/2012

Conestoga-Rovers & Associates

Submitted: 08/10/2012 09:20

10969 Trade Center Drive

Reported: 08/22/2012 18:20

Suite 107

Rancho Cordova CA 95670

MLSTB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	
10903	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10903	Tetrachloroethene	127-18-4	N.D.	0.8	1
10903	Toluene	108-88-3	N.D.	0.5	1
10903	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10903	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10903	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10903	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10903	Trichloroethene	79-01-6	N.D.	1	1
10903	Trichlorofluoromethane	75-69-4	N.D.	2	1
10903	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10903	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10903	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10903	Vinyl Chloride	75-01-4	N.D.	1	1
10903	m+p-Xylene	179601-23-1	N.D.	0.5	1
10903	o-Xylene	95-47-6	N.D.	0.5	1
10903	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles ECY 97-602 NWTPH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

### General Sample Comments

State of Washington Lab Certification No. C259

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
10903	8260 Solvent Compound - Water	SW-846 8260B	1	Y122303AA	08/18/2012 04:20	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122303AA	08/18/2012 04:20	Sarah A Guill	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12229C20A	08/20/2012 12:34	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12229C20A	08/20/2012 12:34	Marie D John	1

## Quality Control Summary

Client Name: Conestoga-Rovers & Associates  
Reported: 08/22/12 at 06:20 PM

Group Number: 1328127

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

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: Y122303AA	Sample number(s): 6751353-6751366							
Acetone	N.D.	6.	ug/l	147		38-212		
Benzene	N.D.	0.5	ug/l	102		77-121		
Bromobenzene	N.D.	1.	ug/l	96		80-120		
Bromochloromethane	N.D.	1.	ug/l	98		77-130		
Bromodichloromethane	N.D.	1.	ug/l	99		73-120		
Bromoform	N.D.	1.	ug/l	88		61-120		
Bromomethane	N.D.	1.	ug/l	80		44-120		
2-Butanone	N.D.	3.	ug/l	116		53-155		
n-Butylbenzene	N.D.	1.	ug/l	98		73-130		
sec-Butylbenzene	N.D.	1.	ug/l	100		74-124		
tert-Butylbenzene	N.D.	1.	ug/l	99		80-120		
Carbon Disulfide	N.D.	1.	ug/l	94		62-125		
Carbon Tetrachloride	N.D.	1.	ug/l	103		67-122		
Chlorobenzene	N.D.	0.8	ug/l	100		80-120		
Chloroethane	N.D.	1.	ug/l	82		49-129		
Chloroform	N.D.	0.8	ug/l	98		77-122		
Chloromethane	N.D.	1.	ug/l	79		60-129		
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	95		56-126		
Dibromochloromethane	N.D.	1.	ug/l	99		72-120		
1,2-Dibromoethane	N.D.	0.5	ug/l	101		76-120		
Dibromomethane	N.D.	1.	ug/l	101		80-120		
1,2-Dichlorobenzene	N.D.	1.	ug/l	101		80-120		
1,3-Dichlorobenzene	N.D.	1.	ug/l	95		80-120		
1,4-Dichlorobenzene	N.D.	1.	ug/l	100		80-120		
Dichlorodifluoromethane	N.D.	2.	ug/l	85		47-120		
1,1-Dichloroethane	N.D.	1.	ug/l	100		79-120		
1,2-Dichloroethane	N.D.	0.5	ug/l	101		64-130		
1,1-Dichloroethene	N.D.	0.8	ug/l	100		80-120		
cis-1,2-Dichloroethene	N.D.	0.8	ug/l	102		80-120		
trans-1,2-Dichloroethene	N.D.	0.8	ug/l	103		80-120		
1,2-Dichloropropane	N.D.	1.	ug/l	97		80-120		
1,3-Dichloropropane	N.D.	1.	ug/l	101		80-120		
2,2-Dichloropropane	N.D.	1.	ug/l	97		67-124		
1,1-Dichloropropene	N.D.	1.	ug/l	98		80-120		
cis-1,3-Dichloropropene	N.D.	1.	ug/l	104		78-120		
trans-1,3-Dichloropropene	N.D.	1.	ug/l	95		79-120		
Ethylbenzene	N.D.	0.5	ug/l	101		79-120		
Hexachlorobutadiene	N.D.	2.	ug/l	96		58-120		
2-Hexanone	N.D.	3.	ug/l	99		53-139		
Isopropylbenzene	N.D.	1.	ug/l	101		77-120		
p-Isopropyltoluene	N.D.	1.	ug/l	98		77-121		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	103		68-121		
4-Methyl-2-pentanone	N.D.	3.	ug/l	96		58-133		

\*- 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: 08/22/12 at 06:20 PM

Group Number: 1328127

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Methylene Chloride	N.D.	2.	ug/l	100		80-126		
Naphthalene	N.D.	1.	ug/l	102		47-126		
n-Propylbenzene	N.D.	1.	ug/l	101		77-130		
Styrene	N.D.	1.	ug/l	96		77-120		
1,1,1,2-Tetrachloroethane	N.D.	1.	ug/l	98		79-120		
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l	102		75-123		
Tetrachloroethene	N.D.	0.8	ug/l	100		79-120		
Toluene	N.D.	0.5	ug/l	99		79-120		
1,2,3-Trichlorobenzene	N.D.	1.	ug/l	99		71-120		
1,2,4-Trichlorobenzene	N.D.	1.	ug/l	101		72-120		
1,1,1-Trichloroethane	N.D.	0.8	ug/l	90		70-121		
1,1,2-Trichloroethane	N.D.	0.8	ug/l	103		80-120		
Trichloroethene	N.D.	1.	ug/l	101		80-120		
Trichlorofluoromethane	N.D.	2.	ug/l	105		56-128		
1,2,3-Trichloropropane	N.D.	1.	ug/l	100		76-120		
1,2,4-Trimethylbenzene	N.D.	1.	ug/l	100		69-122		
1,3,5-Trimethylbenzene	N.D.	1.	ug/l	100		68-124		
Vinyl Chloride	N.D.	1.	ug/l	85		56-123		
m+p-Xylene	N.D.	0.5	ug/l	100		77-120		
o-Xylene	N.D.	0.5	ug/l	100		77-120		
Xylene (Total)	N.D.	0.5	ug/l	100		77-120		

Batch number: 12223WAJ026

Sample number(s): 6751353-6751365

Acenaphthene	N.D.	0.010	ug/l	111		69-119		
Acenaphthylene	N.D.	0.010	ug/l	108		64-119		
Anthracene	N.D.	0.010	ug/l	111		64-122		
Benzo(a)anthracene	N.D.	0.010	ug/l	109		63-124		
Benzo(a)pyrene	N.D.	0.010	ug/l	110		60-127		
Benzo(b)fluoranthene	N.D.	0.010	ug/l	120		58-151		
Benzo(g,h,i)perylene	N.D.	0.010	ug/l	109		57-131		
Benzo(k)fluoranthene	N.D.	0.010	ug/l	100		59-130		
Chrysene	N.D.	0.010	ug/l	102		65-124		
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	112		55-134		
Fluoranthene	N.D.	0.010	ug/l	105		69-121		
Fluorene	N.D.	0.010	ug/l	105		67-124		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	111		66-122		
Naphthalene	N.D.	0.030	ug/l	105		72-120		
Phenanthrene	N.D.	0.030	ug/l	104		66-121		
Pyrene	N.D.	0.010	ug/l	113		59-128		

Batch number: 12229C20A  
NWTPH-Gx water C7-C12

Sample number(s): 6751353-6751366  
N.D. 50. ug/l 97

75-135

Batch number: 122250019A  
DRO C12-C24 w/Si Gel  
HRO C24-C40 w/Si Gel

Sample number(s): 6751353-6751363  
N.D. 30. ug/l 88  
N.D. 70. ug/l

50-120

Batch number: 122270024A  
DRO C12-C24 w/Si Gel  
HRO C24-C40 w/Si Gel

Sample number(s): 6751364-6751365  
N.D. 30. ug/l 91  
79 70. ug/l

92

50-120

1

20

Batch number: 122246050003A  
Lead

Sample number(s): 6751353-6751361,6751364-6751365  
N.D. 0.034 ug/l 103

90-115

\*- 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: 08/22/12 at 06:20 PM

Group Number: 1328127

### 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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>BKG</u> <u>MAX</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: Y122303AA	Sample number(s): 6751353-6751366 UNSPK: 6751361							
Acetone	94	91	52-139	3	30			
Benzene	107	107	72-134	0	30			
Bromobenzene	98	98	82-115	0	30			
Bromochloromethane	96	96	76-134	0	30			
Bromodichloromethane	98	97	78-125	1	30			
Bromoform	76	77	48-118	1	30			
Bromomethane	79	81	38-149	3	30			
2-Butanone	93	92	57-138	0	30			
n-Butylbenzene	100	103	73-128	2	30			
sec-Butylbenzene	106	107	79-125	1	30			
tert-Butylbenzene	102	103	81-121	0	30			
Carbon Disulfide	91	92	67-135	1	30			
Carbon Tetrachloride	109	109	72-135	1	30			
Chlorobenzene	102	103	87-124	0	30			
Chloroethane	81	81	51-145	0	30			
Chloroform	100	100	81-134	1	30			
Chloromethane	79	79	67-154	0	30			
2-Chlorotoluene	101	103	82-118	1	30			
4-Chlorotoluene	101	101	84-122	0	30			
1,2-Dibromo-3-chloropropane	90	90	54-134	0	30			
Dibromochloromethane	94	93	74-116	0	30			
1,2-Dibromoethane	98	99	77-116	1	30			
Dibromomethane	99	99	83-119	0	30			
1,2-Dichlorobenzene	101	101	84-119	1	30			
1,3-Dichlorobenzene	97	97	86-121	0	30			
1,4-Dichlorobenzene	98	101	85-121	3	30			
Dichlorodifluoromethane	87	85	52-129	3	30			
1,1-Dichloroethane	105	104	84-129	1	30			
1,2-Dichloroethane	100	99	68-131	1	30			
1,1-Dichloroethene	110	110	85-142	0	30			
cis-1,2-Dichloroethene	114	110	85-125	2	30			
trans-1,2-Dichloroethene	110	108	87-126	2	30			
1,2-Dichloropropane	101	100	83-124	2	30			
1,3-Dichloropropane	100	100	81-120	1	30			
2,2-Dichloropropane	104	104	69-135	0	30			
1,1-Dichloropropene	108	108	86-137	0	30			
cis-1,3-Dichloropropene	96	97	70-116	1	30			
trans-1,3-Dichloropropene	89	88	74-119	0	30			
Ethylbenzene	105	105	71-134	0	30			
Hexachlorobutadiene	97	101	56-134	4	30			
2-Hexanone	89	90	55-127	1	30			
Isopropylbenzene	106	106	75-128	0	30			
p-Isopropyltoluene	102	104	76-123	2	30			
Methyl Tertiary Butyl Ether	101	99	72-126	2	30			
4-Methyl-2-pentanone	90	92	63-123	2	30			
Methylene Chloride	100	100	78-133	0	30			
Naphthalene	95	97	52-125	2	30			
n-Propylbenzene	106	108	74-134	2	30			
Styrene	93	94	78-125	1	30			
1,1,1,2-Tetrachloroethane	100	101	82-119	0	30			
1,1,2,2-Tetrachloroethane	99	99	72-128	0	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: 08/22/12 at 06:20 PM

Group Number: 1328127

### 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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Tetrachloroethene	108	107	80-128	0	30				
Toluene	105	105	80-125	0	30				
1,2,3-Trichlorobenzene	92	95	69-119	3	30				
1,2,4-Trichlorobenzene	97	99	70-124	2	30				
1,1,1-Trichloroethane	96	95	74-131	0	30				
1,1,2-Trichloroethane	102	103	77-124	1	30				
Trichloroethene	109	109	88-133	0	30				
Trichlorofluoromethane	106	104	64-146	2	30				
1,2,3-Trichloropropane	97	97	76-118	1	30				
1,2,4-Trimethylbenzene	101	102	72-130	0	30				
1,3,5-Trimethylbenzene	102	103	76-120	1	30				
Vinyl Chloride	87	84	66-133	3	30				
m+p-Xylene	103	104	79-125	1	30				
o-Xylene	102	102	79-125	0	30				
Xylene (Total)	103	104	79-125	1	30				

Batch number: 12223WAJ026	Sample number(s): 6751353-6751365 UNSPK: 6751361
Acenaphthene	110 112 53-133 2 30
Acenaphthylene	109 111 54-124 3 30
Anthracene	110 110 51-135 5 30
Benzo(a)anthracene	106 109 67-124 2 30
Benzo(a)pyrene	105 103 55-130 7 30
Benzo(b)fluoranthene	111 109 66-132 6 30
Benzo(g,h,i)perylene	108 103 36-138 10 30
Benzo(k)fluoranthene	93 93 42-144 5 30
Chrysene	98 97 54-127 6 30
Dibenz(a,h)anthracene	111 103 46-139 12 30
Fluoranthene	102 105 43-141 2 30
Fluorene	105 108 46-141 2 30
Indeno(1,2,3-cd)pyrene	111 104 39-146 11 30
Naphthalene	97 102 52-131 0 30
Phenanthrene	102 102 51-132 5 30
Pyrene	108 111 47-133 2 30

Batch number: 12229C20A	Sample number(s): 6751353-6751366 UNSPK: 6751361
NWTPH-Gx water C7-C12	79 98 75-135 21 30

Batch number: 122250019A	Sample number(s): 6751353-6751363 UNSPK: 6751361
DRO C12-C24 w/Si Gel	82 71 60-120 16 20

Batch number: 122246050003A	Sample number(s): 6751353-6751361,6751364-6751365 UNSPK: P748039 BKG: P748039
Lead	106 104 83-120 2 20 0.039 N.D. 200* (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: VOCs by 8260B - Water  
Batch number: Y122303AA

\*- 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: 08/22/12 at 06:20 PM

Group Number: 1328127

### Surrogate Quality Control

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6751353	100	101	101	100
6751354	100	102	100	101
6751355	99	101	101	101
6751356	101	102	100	99
6751357	102	103	101	100
6751358	101	102	101	102
6751359	101	104	101	101
6751360	100	101	100	101
6751361	100	103	99	99
6751362	101	101	102	101
6751363	101	104	102	100
6751364	100	101	101	100
6751365	101	103	99	98
6751366	100	104	102	101
Blank	101	102	101	99
LCS	102	105	101	101
MS	101	101	102	101
MSD	101	104	102	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PAHs in waters by SIM  
Batch number: 12223WAJ026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
6751353	102	122	101
6751354	109	124	112
6751355	110	120	106
6751356	99	114	98
6751357	100	117	99
6751358	104	124	112
6751359	101	121	107
6751360	98	107	103
6751361	99	119	94
6751362	103	123	99
6751363	104	123	102
6751364	99	117	96
6751365	99	117	98
Blank	98	120	95
LCS	104	126	101
MS	103	123	99
MSD	104	123	102
Limits:	64-120	44-127	61-120

Analysis Name: NWTPH-Gx water C7-C12  
Batch number: 12229C20A  
Trifluorotoluene-F

6751353	76
6751354	83
6751355	72
6751356	73
6751357	84

\*- 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: 08/22/12 at 06:20 PM

Group Number: 1328127

### Surrogate Quality Control

6751358	82
6751359	82
6751360	74
6751361	73
6751362	82
6751363	99
6751364	70
6751365	70
6751366	80
Blank	69
LCS	86
MS	82
MSD	99

---

Limits: 63-135

Analysis Name: NWTPH-Dx water w/Si Gel  
Batch number: 122250019A  
Orthoterphenyl

6751353	113
6751354	99
6751355	129
6751356	111
6751357	97
6751358	113
6751359	102
6751360	94
6751361	100
6751362	100
6751363	85
Blank	99
LCS	114
MS	100
MSD	85

---

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel  
Batch number: 122270024A  
Orthoterphenyl

6751364	104
6751365	103
Blank	108
LCS	108
LCSD	108

---


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.

acct# 13534 Cp# 1328127  
 sample# 6751353-66

### CHAIN OF CUSTODY RECORD

 <b>CONESTOGA-ROVERS &amp; ASSOCIATES</b> 1117 TACOMA AVE. SOUTH TACOMA, WA. 98402-2005	<b>SHIPPED TO (Laboratory Name):</b> LANCASTER LABORATORIES	<b>REFERENCE NUMBER:</b> 061992
--	--	------------------------------------

SAMPLER'S SIGNATURE: <u>[Signature]</u>		PRINTED NAME: <u>N. Hinsperger</u>		No. of Containers	PARAMETERS						REMARKS
SEQ. No.	DATE	TIME	SAMPLE No.		SAMPLE TYPE	MULTPH DX	MULTPH LX	PB	PAH's	VOC's	
	08/07	10:00	GW-080712-NH-MW10	WT	9	X	X	X	X	X	Full List VOCs per prev. fmp 8/13/12
	08/07	12:00	GW-080712-NH-MW3	WT	9	X	X	X	X	X	
	08/07	14:30	GW-080712-NH-MW5	WT	9	X	X	X	X	X	
	08/07	9:50	GW-080712-JS-MW7	WT	9	X	X	X	X	X	
	08/08	11:30	GW-080812-NH-MW9	WT	9	X	X	X	X	X	*collection time per sample labels. fmp 8/13/12
	08/08	13:30	GW-080812-NH-MW8	WT	9	X	X	X	X	X	
	08/08		GW-080812-NH-FD1	WT	9	X	X	X	X	X	
	08/08	9:45*	GW-080812-NH-MW2	WT	9	X	X	X	X	X	
	08/08	14:45	GW-080812-NH-MW1	WT	25	X	X	X	X	X	MS/MSD
	08/07	14:20	GW-080712-JS-MW4	WT	9	X	X	X	X	X	No Pb on MS/MSD per previous. fmp 8/13/12
	08/07	11:10	GW-080712-JS-MW6	WT	9	X	X	X	X	X	
	08/08		TRIP BLANK	WT	4	X	X	X	X	X	

TOTAL NUMBER OF CONTAINERS	HEALTH/CHEMICAL HAZARDS
----------------------------	-------------------------

RELINQUISHED BY: ① <u>[Signature]</u>	DATE: <u>08/09/12</u>	RECEIVED BY: ① <u>[Signature]</u>	DATE: _____
	TIME: <u>12:00</u>		TIME: _____
RELINQUISHED BY: ② _____	DATE: _____	RECEIVED BY: ② _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: ③ _____	DATE: _____	RECEIVED BY: ③ _____	DATE: _____
	TIME: _____		TIME: _____

METHOD OF SHIPMENT:	WAY BILL No.
---------------------	--------------

White — Fully Executed Copy Yellow — Receiving Laboratory Copy Pink — Shipper Copy Goldenrod — Sampler Copy	<b>SAMPLE TEAM:</b> <u>N. Hinsperger</u> <u>J. Song</u>	<b>RECEIVED FOR LABORATORY BY:</b> <u>[Signature]</u> DATE: <u>8/10/12</u> TIME: <u>9:00</u> <b>Nº CRA 20891</b>
--	---	---

# Explanation of Symbols and Abbreviations

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

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	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 of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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  $\geq$  the Method Detection Limit (MDL) and  $<$  the Limit of Quantitation (LOQ).

## U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
<b>A</b>	TIC is a possible aldol-condensation product	<b>B</b>	Value is $<$ CRDL, but $\geq$ IDL
<b>B</b>	Analyte was also detected in the blank	<b>E</b>	Estimated due to interference
<b>C</b>	Pesticide result confirmed by GC/MS	<b>M</b>	Duplicate injection precision not met
<b>D</b>	Compound quantitated on a diluted sample	<b>N</b>	Spike sample not within control limits
<b>E</b>	Concentration exceeds the calibration range of the instrument	<b>S</b>	Method of standard additions (MSA) used for calculation
<b>N</b>	Presumptive evidence of a compound (TICs only)	<b>U</b>	Compound was not detected
<b>P</b>	Concentration difference between primary and confirmation columns $>$ 25%	<b>W</b>	Post digestion spike out of control limits
<b>U</b>	Compound was not detected	<b>*</b>	Duplicate analysis not within control limits
<b>X,Y,Z</b>	Defined in case narrative	<b>+</b>	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.

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ATTACHMENT C

HISTORICAL GROUNDWATER MONITORING AND SAMPLING DATA

**Table 1**  
**Cumulative Summary of Groundwater Elevations and Sample Analytical Results**

Former Tidewater Site  
 2800 Martin Luther King Way  
 Seattle, WA

Sample ID / Well Elevation (feet, amsl)	Date Sampled	Depth to Water (feet, TOC)	Groundwater Elevation (feet, amsl)	NWTPH-Dx			NWTPH-Gx			EPA Method 8260B									
				TPH-DRO (ug/L)	TPH-MRO (ug/L)	TPH-GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Naphthalene (ug/L)	MTBE (ug/L)	1,2-Dibromoethane (ug/L)	1,2-Dichloroethane (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,3,5-Triethylbenzene (ug/L)	n-Propylbenzene (ug/L)	Iso-Propylbenzene (ug/L)	
MW-1 97.92	08/19/05	13.01	84.91	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	10/27/05	12.62	85.30	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	12/27/05	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	01/12/06	9.03	88.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	03/02/06	10.56	87.36	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	06/28/06	12.42	85.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/01/06	9.33	88.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/06/06	9.72	88.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	02/28/07	11.04	86.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	03/07/07	11.14	86.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	04/11/07	11.06	86.86	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	11/12/09	11.08	86.84	--	--	<50	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	
	08/30/11	--	--	Well not sampled - well not found															
	12/15/11	--	--	Well not sampled - well not found															
62.35	02/06/12	9.84	52.51	430	620	260	<0.5	41	3	18	<1	<0.5	<1	<1	<1	<1	<1	<1	
MW-2 96.25	08/19/05	13.02	83.23	--	--	2,000	ND	10	81	91	--	--	--	--	--	--	--	--	
	10/27/05	13.62	82.63	--	--	2,300	ND	ND	89	93	--	--	--	--	--	--	--	--	
	12/27/05	--	--	--	--	820	ND	ND	21	66	--	--	--	--	--	--	--	--	
	01/12/06	5.77	90.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	03/02/06	11.82	84.43	--	--	1,300	ND	3.9	23	50	--	--	--	--	--	--	--	--	
	04/13/06	13.06	83.19	--	--	470	ND	1.4	6.9	15	--	--	--	--	--	--	--	--	
	06/28/06	12.40	83.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	09/11/06	13.64	82.61	--	--	580	ND	1.6	2.9	6.2	--	--	--	--	--	--	--	--	
	12/01/06	10.65	85.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/06/06	10.20	86.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	01/12/07	11.06	85.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	02/12/07	--	--	--	--	1,400	1.4	3.5	16	13	--	--	--	--	--	--	--	--	
	02/28/07	11.65	84.60	--	--	1,200	1.8	3.7	18	60	--	--	--	--	--	--	--	--	
	03/07/07	11.43	84.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
04/11/07	11.07	85.18	--	--	1,200	ND	2.8	11	63	--	--	--	--	--	--	--	--		
11/12/09	12.35	83.90	--	--	455	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--		
60.72	08/31/11	11.96	48.76	590	<66	960	1	<0.7	1	6	<1	<0.5	<1	<1	<1	2	59	24	
	12/15/11	11.53	49.19	30	<67	750	1	<0.7	1	<1.6	<1	<0.5	<1	<1	<1	<1	60	25	
	02/06/12	10.26	50.46	390	<68	780	1	2	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	55	22	



**Table 1**  
**Cumulative Summary of Groundwater Elevations and Sample Analytical Results**

Former Tidewater Site  
 2800 Martin Luther King Way  
 Seattle, WA

Sample ID / Well Elevation (feet, amsl)	Date Sampled	Depth to Water (feet, TOC)	Groundwater Elevation (feet, amsl)	NWTPH-Dx			NWTPH-Gx			EPA Method 8260B									
				TPH-DRO (ug/L)	TPH-MRO (ug/L)	TPH-GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Naphthalene (ug/L)	MTBE (ug/L)	1,2-Dibromoethane (ug/L)	1,2-Dichloroethane (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,3,5-Trimethylbenzene (ug/L)	n-Propylbenzene (ug/L)	Iso-Propylbenzene (ug/L)	
MW-3 97.43	08/19/05	12.72	84.71	--	--	44,000	4.1	18	780	3,600	--	--	--	--	--	--	--	--	
	10/27/05	13.42	84.01	--	--	17,000	ND	38	580	3,000	--	--	--	--	--	--	--	--	
	12/27/05	--	--	--	--	6,600	5.0	22	200	1,100	--	--	--	--	--	--	--	--	
	01/12/06	8.84	88.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	03/02/06	10.90	86.53	--	--	22,000	ND	26	450	4,200	--	--	--	--	--	--	--	--	
	04/13/06	11.92	85.51	--	--	33,000	ND	3.4	700	3,100	--	--	--	--	--	--	--	--	
	06/28/06	12.17	85.26	--	--	53,000	ND	17	530	2,600	--	--	--	--	--	--	--	--	
	08/13/06	13.91	83.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/11/06	13.77	83.66	--	--	14,000	ND	5.6	180	1,100	--	--	--	--	--	--	--	--	--
	10/13/06	--	--	--	--	1,400	ND	1.0	26	98	--	--	--	--	--	--	--	--	--
	11/17/06	10.56	86.87	--	--	48,000	ND	34	490	4,100	--	--	--	--	--	--	--	--	--
	12/01/06	9.78	87.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/06/06	10.01	87.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	01/12/07	10.90	86.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/12/07	--	--	--	--	36,000	ND	10	280	1,800	--	--	--	--	--	--	--	--	--
	02/28/07	11.12	86.31	--	--	22,000	ND	5.8	200	1,400	--	--	--	--	--	--	--	--	--
03/07/07	11.17	86.26	--	--	21,000	ND	18	170	1,000	--	--	--	--	--	--	--	--	--	
04/11/07	11.04	86.39	--	--	19,000	ND	5.5	110	1,100	--	--	--	--	--	--	--	--	--	
11/12/09	11.98	85.45	--	--	71.7	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	--	
61.81	08/31/11	12.10	49.71	370	<68	7,400	<1	<1	190	554	67	<1	<2	<2	1,300	330	140	47	
	12/15/11	11.38	50.43	<29	<67	5,400	<0.5	<0.7	120	400	50	<0.5	<1	<1	950	210	110	37	
	02/06/12	10.33	51.48	1,200	<68	6,300	<1	<1	130	523	49	<1	<2	<2	870	190	74	27	
MW-4 98.36	06/28/06	12.40	85.96	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	12/01/06	9.90	88.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/06/06	10.21	88.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	02/28/07	11.43	86.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	03/07/07	11.49	86.87	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	04/11/07	11.27	87.09	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
62.75	11/12/09	11.82	86.54	--	--	<50	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	
	08/31/11	12.42	50.33	<29	<68	<50	<0.5	<0.7	<0.8	<0.8	<1	<0.5	<1	<1	<1	<1	<1	<1	
	12/15/11	11.69	51.06	<29	<67	<50	<0.5	<0.7	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	<1	<1	
	02/06/12	10.50	52.25	55	<67	<50	<0.5	<0.7	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	<1	<1	
MW-5 97.2	06/28/06	12.09	85.11	--	--	21,000	ND	14	290	920	--	--	--	--	--	--	--	--	
	09/11/06	13.63	83.57	--	--	2,500	ND	ND	34	60	--	--	--	--	--	--	--	--	
	11/17/06	10.57	86.63	--	--	23,000	ND	52	450	1,700	--	--	--	--	--	--	--	--	
	12/01/06	9.75	87.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	01/12/07	10.85	86.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	02/12/07	--	--	--	--	37,000	ND	33	1,600	2,800	--	--	--	--	--	--	--	--	
	02/28/07	11.05	86.15	--	--	29,000	ND	24	550	1,800	--	--	--	--	--	--	--	--	
	03/07/07	11.11	86.09	--	--	42,000	11.0	24	740	2,500	--	--	--	--	--	--	--	--	
	04/11/07	10.96	86.24	--	--	65,000	ND	79	850	4000	--	--	--	--	--	--	--	--	
	11/12/09	12.10	85.10	--	--	2,340	1.3	36.3	<1.0	125	--	--	--	--	--	--	--	--	
	61.66	08/31/11	12.80	48.86	770	<67	3,100	2	1	72	124	120	<0.5	<1	<1	130	18	210	78
		12/15/11	11.41	50.25	66	<67	1,900	1	0.9	24	33	81	<0.5	<1	<1	43	3	120	43
02/06/12		10.54	51.12	34	<68	1,200	0.8	<0.7	12	43	37	<0.5	<1	<1	31	6	55	21	

**Table 1**  
**Cumulative Summary of Groundwater Elevations and Sample Analytical Results**

Former Tidewater Site  
 2800 Martin Luther King Way  
 Seattle, WA

Sample ID / Well Elevation (feet, amsl)	Date Sampled	Depth to Water (feet, TOC)	Groundwater Elevation (feet, amsl)	NWTPH-Dx			NWTPH-Gx			EPA Method 8260B									
				TPH-DRO (ug/L)	TPH-MRO (ug/L)	TPH-GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Naphthalene (ug/L)	MTBE (ug/L)	1,2-Dibromoethane (ug/L)	1,2-Dichloroethane (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,3,5-Tri-methylbenzene (ug/L)	n-Propylbenzene (ug/L)	Iso-Propylbenzene (ug/L)	
MW-6 58.03	08/31/11	12.33	45.70	44	<67	<50	<0.5	<0.7	<0.8	<0.8	1	<0.5	<1	<1	<1	<1	<1	<1	
	12/15/11	12.09	45.94	<29	<67	<50	<0.5	<0.7	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	<1	<1	
	02/06/12	11.80	46.23	<29	<68	<50	<0.5	<0.7	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	<1	<1	
MW-7 56.96	08/31/11	11.15	45.81	<29	<67	<50	<0.5	<0.7	<0.8	<0.8	<1	<0.5	<1	<1	<1	<1	<1	<1	
	12/15/11	10.93	46.03	45	89	<50	<0.5	<0.7	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	<1	<1	
	02/06/12	10.75	46.21	<29	<68	<50	<0.5	2.0	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	<1	<1	
MW-8 61.71	08/31/11	12.01	49.70	240	<67	<b>4,400</b>	<0.5	<0.7	41	442	33	<0.5	<1	<1	500	130	26	11	
	12/15/11	11.25	50.46	98	<67	<b>8,100</b>	<0.5	<0.7	79	880	72	<0.5	<1	<1	900	230	46	20	
	02/06/12	10.00	51.71	290	<69	<b>13,000</b>	<1	<1	110	<b>1,280</b>	89	<1	<2	<2	1,400	450	36	18	
MW-9 62.58	08/31/11	14.29	48.29	78	<68	<50	<0.5	<0.7	<0.8	<0.8	<1	<0.5	<1	<1	<1	<1	<1	<1	
	12/15/11	13.01	49.57	<29	<67	<50	<0.5	<0.7	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	<1	<1	
	02/06/12	12.04	50.54	<300	<700 <sup>1</sup>	66	<0.5	<0.7	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	<1	<1	
MW-10 58.96	08/31/11	11.94	47.02	260	100	<50	2	<0.7	<0.8	<0.8	<1	<0.5	<1	<1	<1	<1	<1	<1	
	12/15/11	11.13	47.83	<28	<66	51	3	<0.7	<0.8	0.8	<1	<0.5	<1	<1	<1	<1	2	<1	
	02/06/12	10.44	48.52	<29	<68	<50 <sup>2</sup>	1	<0.7	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	3	1	
TB	11/12/2009	---	---	--	--	<50	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	
	8/31/2011	---	---	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	12/15/11	---	---	--	--	<50	<0.5	<0.7	<0.8	<1.6	<1	<0.5	<1	<1	<1	<1	<1	<1	
QA-T	02/07/12	---	---	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	--	--	--	--	--		
<b>MTCA METHOD A CLEANUP LEVEL</b>				<b>500</b>	<b>500</b>	<b>800/1,000*</b>	<b>5</b>	<b>1,000</b>	<b>700</b>	<b>1,000</b>	<b>160</b>	<b>20</b>	<b>0.1</b>	<b>5</b>	--	--	--	--	

**Explanation:**

amsl = above mean sea level

bgs = below ground surface

EPA = Environmental Protection Agency

ND = Not detected at or above laboratory method reporting limits ug/L= micrograms per liter

SPH = separate phase hydrocarbons

TB = Trip blank

TOC = top of casing

MTCA= Model Toxics Control Act

\*=Concentration of TPH-GRO containing benzene have a MTCA Method A cleanup level of 800 ug/L; no detectable benzene have a cleanup level of 1,000 ug/L.

TPH-DRO = Total Petroleum Hydrocarbons as Diesel Range Organics

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics

TPH-MRO = Total Petroleum Hydrocarbons as Motor Oil Range Organics

-- = Not detected at or above laboratory method reporting limits.

-- = Not applicable or not analyzed

Bold = Exceeds MTCA Method A Cleanup Levels

MTBE= Methyl Tertiary Butyl Ether

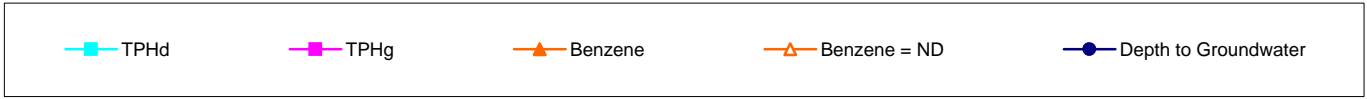
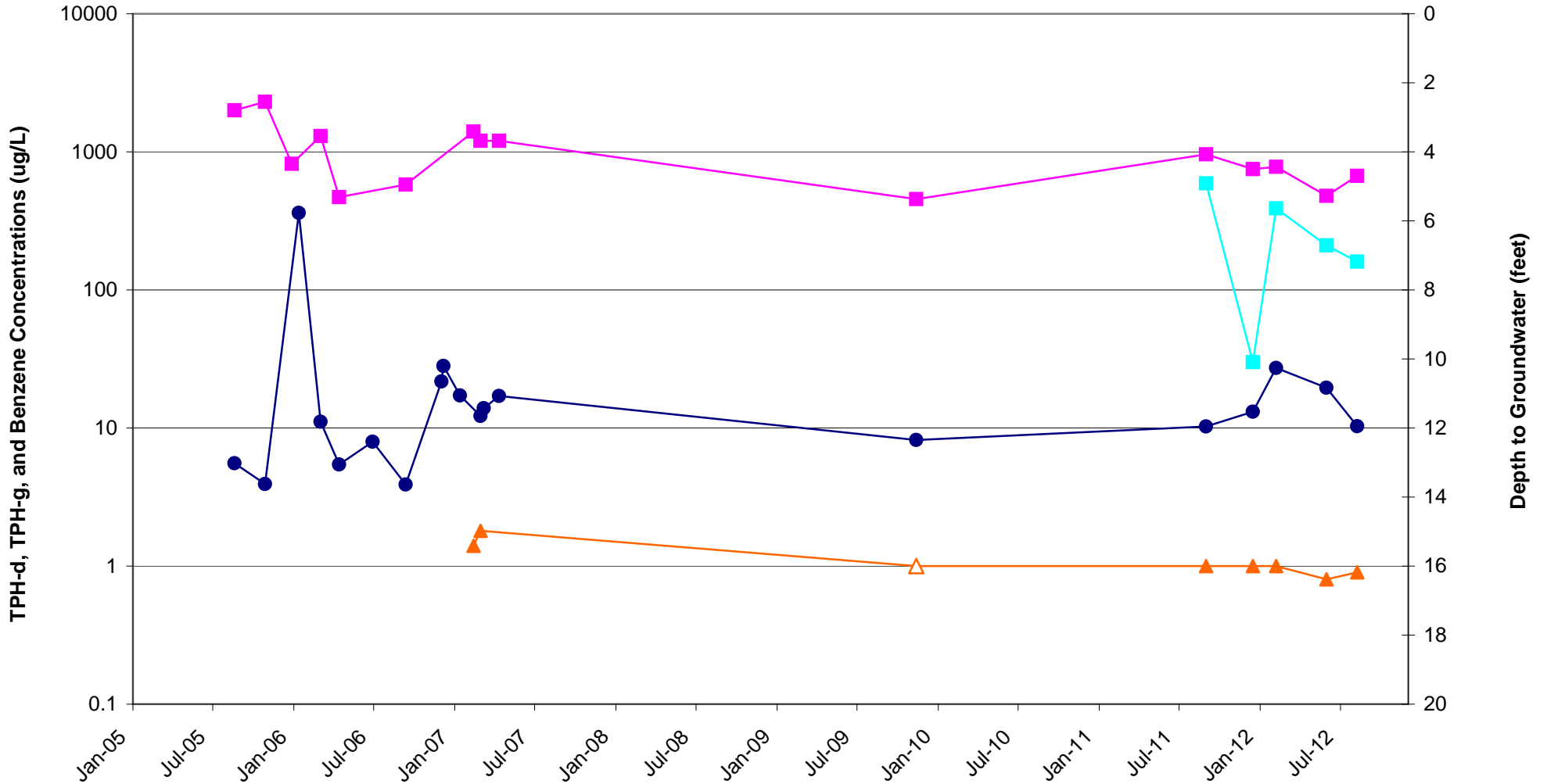
<sup>1</sup> = Reporting limits were raised due to interference from the sample matrix. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

<sup>2</sup> = A preserved vial was submitted for analysis. However, the pH at the time of analysis was 4.

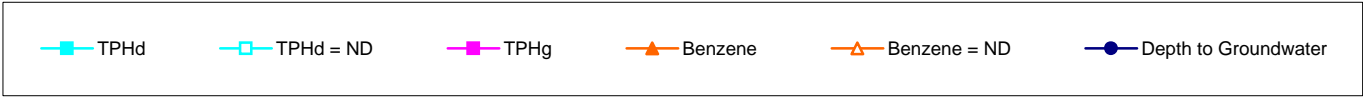
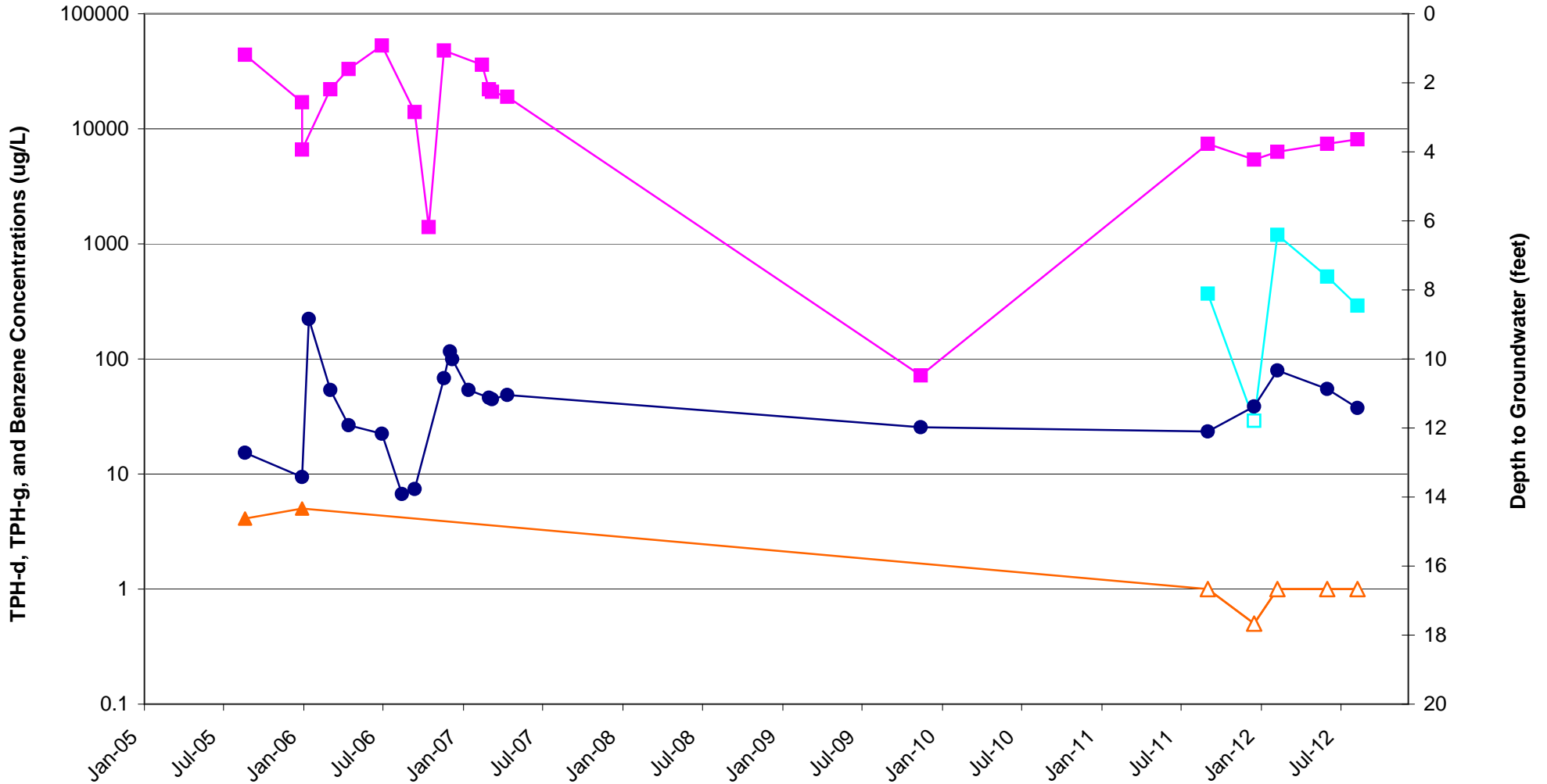
ATTACHMENT D

CONCENTRATION TREND GRAPHS

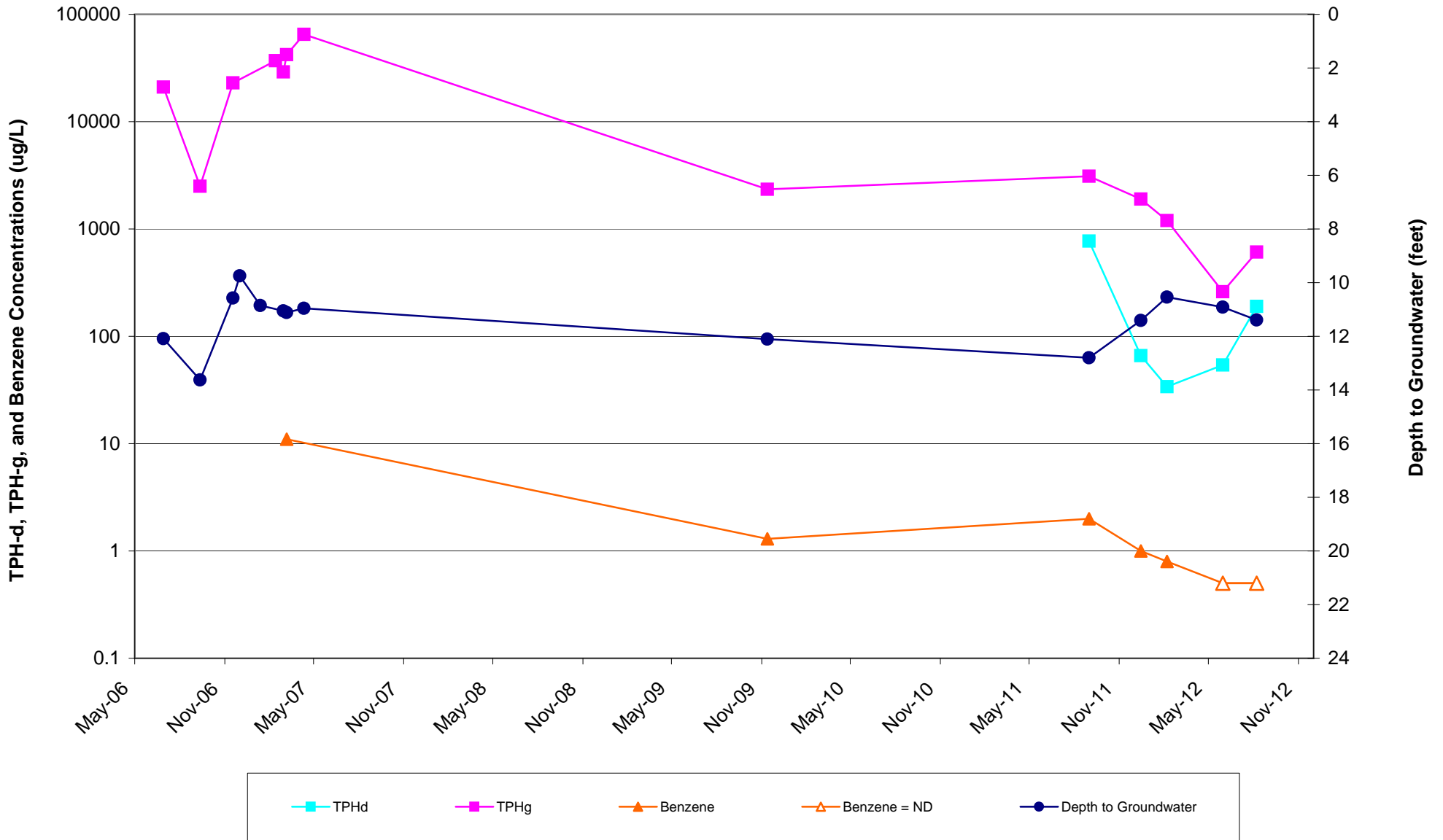
**GRAPH 1**  
**CHEMICAL CONCENTRATION VERSUS TIME**  
**MW-2**  
 FORMER TIDEWATER SITE  
 2800 MARTIN LUTHER KING JUNIOR WAY SOUTH  
 SEATTLE, WASHINGTON



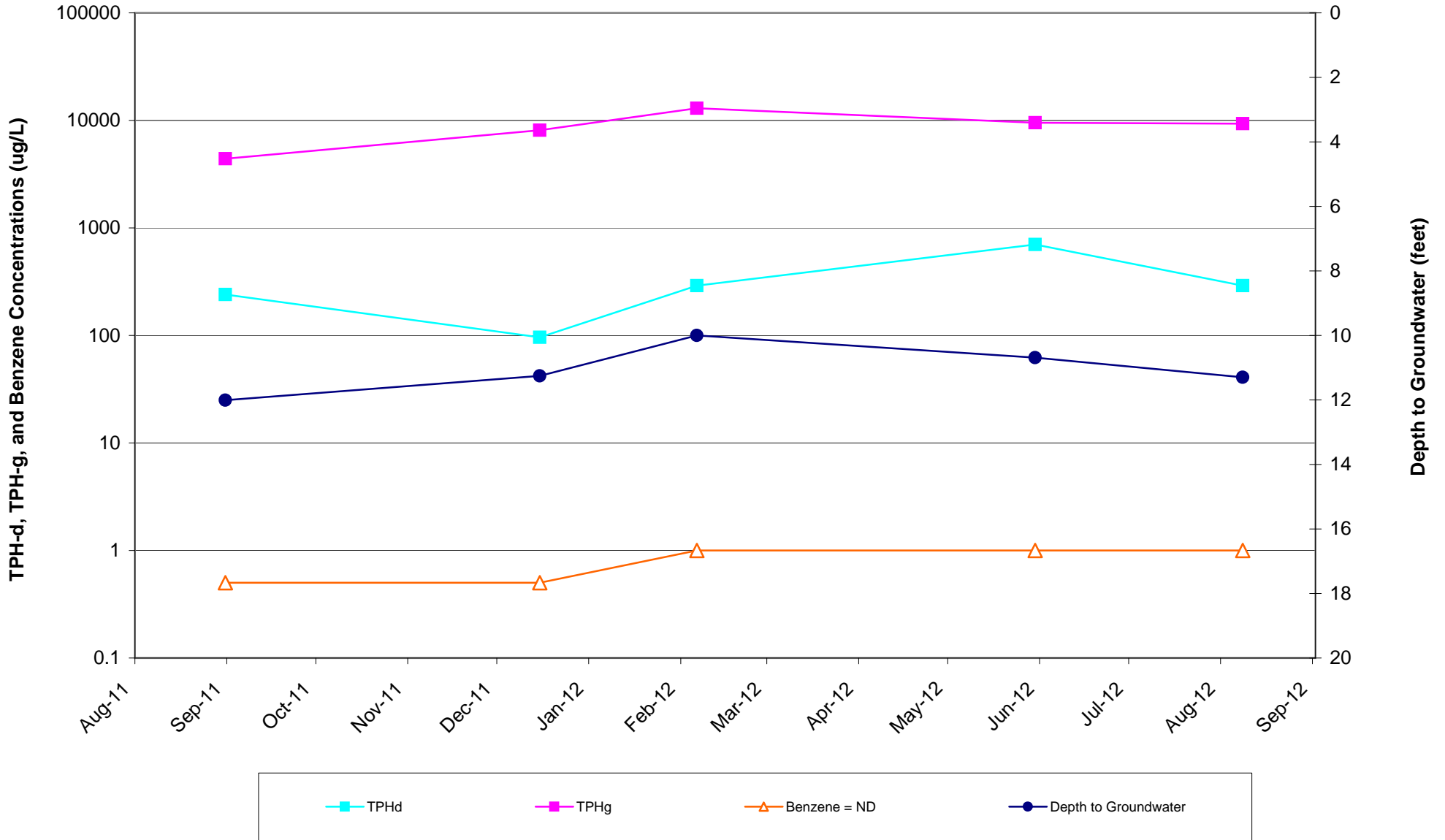
**GRAPH 2**  
**CHEMICAL CONCENTRATION VERSUS TIME**  
**MW-3**  
 FORMER TIDEWATER SITE  
 2800 MARTIN LUTHER KING JUNIOR WAY SOUTH  
 SEATTLE, WASHINGTON



**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 E

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 ( $\mu\text{g/L}$ ). 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.