



**CONESTOGA-ROVERS  
& ASSOCIATES**

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December 22, 2014

Reference No. 061992

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

Re: Second Quarter 2014 Groundwater Monitoring and Sampling Report  
Former Tidewater Site  
Phillips 66 Site 5173  
Chevron Site 301233  
2800 Martin Luther King Junior Way South  
Seattle, Washington  
DOE Case 42746846; VCP No. NW2612

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Dear Ms. Sanchez,

Conestoga-Rovers & Associates (CRA) is submitting this *Second Quarter 2014 Groundwater Monitoring and Sampling Report* for the site referenced above (Figure 1) on behalf of Phillips 66 Company and Chevron Environmental Management Company. Groundwater monitoring and sampling was performed by CRA. CRA's field forms are presented as Attachment A. Eurofins Lancaster Laboratory Environmental, LLCs' *Analytical Results* report is included as Attachment B. A summary of previous site investigations is included as Attachment C. A site map is presented on Figure 2.

### **RESULTS OF SECOND QUARTER 2014 EVENT**

On May 27 and 28, 2014, 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                | 0.06                               |
| • Approximate Depth to Water        | 10 to 13 feet below grade          |
| • Approximate Groundwater Elevation | 46 to 52 feet above mean sea level |

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Equal  
Employment Opportunity  
Employer

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

TABLE A: GROUNDWATER ANALYTICAL DATA							
Well ID	TPHg (µg/L)	TPHd (µg/L)	TPHo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
<i>MTCA Method A Cleanup Levels</i>	<b>800/1000*</b>	<b>500</b>	<b>500</b>	<b>5</b>	<b>1000</b>	<b>700</b>	<b>1000</b>
MW-1	<50	<28	<66	<0.5	<0.5	<0.5	<0.5
MW-2	370	300	<66	<0.5	<0.5	<0.5	<0.5
MW-3	<b>8,700</b>	210	<66	<1	<1	180	460
MW-4	<50	<28	<66	<0.5	<0.5	<0.5	<0.5
MW-5	570	100	<67	<0.5	<0.5	8	26
MW-6	<50	<28	<66	1	<0.5	<0.5	<0.5
MW-7	<50	<29	<67	<0.5	<0.5	<0.5	<0.5
MW-8	<b>5,600</b>	<b>860</b>	<67	<0.5	<0.5	50	270
MW-9	64	50	<67	<0.5	<0.5	<0.5	<0.5
MW-10	<50	74	<67	<0.5	<0.5	<0.5	<0.5
<b>Bold</b>	Indicates concentration exceed MTCA Method A cleanup level						
*	TPHg Cleanup Level for wells containing benzene is 800 µg/L; otherwise cleanup level is 1,000 µg/L.						
µg/L	micrograms per liter						
TPHg	total petroleum hydrocarbons as gasoline						
TPHd	total petroleum hydrocarbons as diesel						
TPHo	total petroleum hydrocarbons as oil						

## CONCLUSIONS AND RECOMMENDATIONS

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

- TPHg concentrations exceeded the Washington State Ecology (Ecology) Model Toxics Control Act (MTCA) Method A cleanup level in groundwater wells MW-3 and MW-8, with the highest concentration detected at MW-3 (Figure 5).
- TPHd concentrations exceeded the MTCA Method A cleanup level in groundwater well MW-8 (Figure 6).
- TPHo concentrations were below MTCA Method A cleanup levels in all wells.
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations were below MTCA Method A cleanup levels in all wells.



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

### **ANTICIPATED FUTURE ACTIVITIES**

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

CRA will monitor and sample site wells per the established schedule. The second quarter 2014 event was performed in May 2014. CRA will submit a groundwater monitoring and sampling report approximately 90 days following receipt of laboratory analytical results.

#### ***Remedial Investigation/Feasibility Study (RI/FS) Work Plan***

CRA submitted a RI/FS Work Plan to the Department of Ecology in November 2013, and began implementation of the work plan in June 2014. The proposed monitoring wells and soil borings outside the former station building have been installed, and the remaining work, including two borings inside the building and an aquifer potability pumping test are expected to be completed in the first quarter 2015.

Please contact Matthew Davis (253) 573-1218 or Edwin Turner at (425) 563-6500 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Matthew Davis, LG

MD/aa/10

Encl.



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& ASSOCIATES**

December 22, 2014

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
Attachment B	Laboratory Analytical Report
Attachment C	Summary of Previous Investigations

cc: Ms. Jillian Holloway, Chevron (*electronic copy*)  
Mr. Ed Ralston, Phillips 66 (*electronic copy*)  
Thom Morin, Environmental Partners, Inc. (*electronic copy*)

## FIGURES

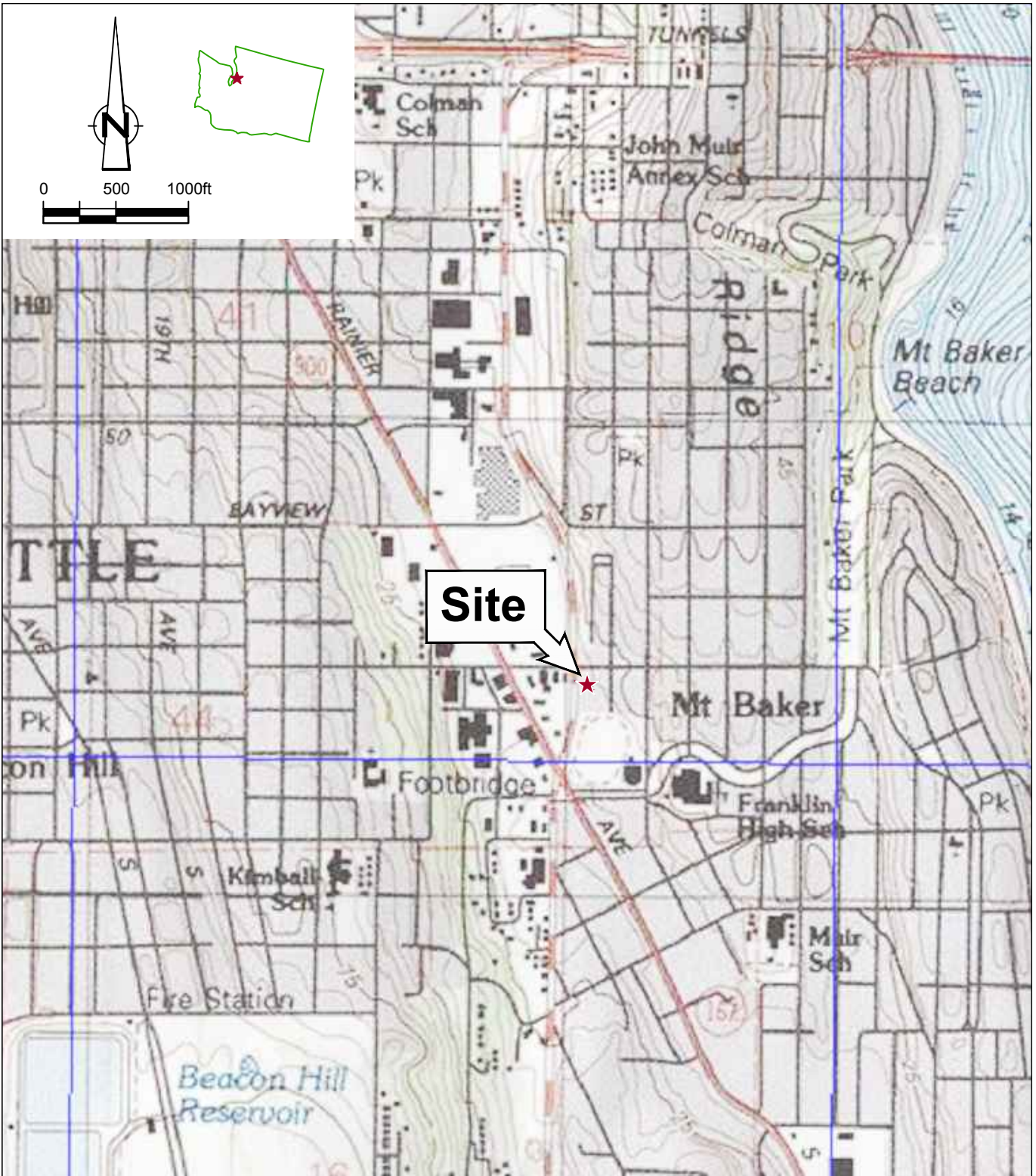


Figure 1

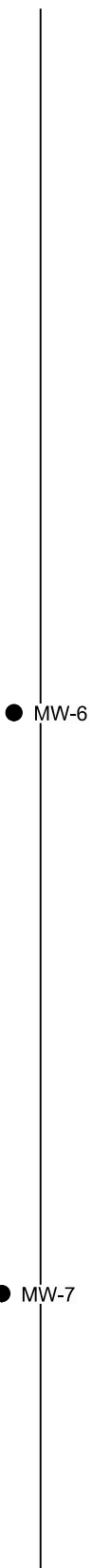
VICINITY MAP  
 FORMER TIDEWATER SERVICE STATION  
 PHILLIPS 66 SITE 5173  
 CHEVRON SITE 301233  
 2800 MARTIN LUTHER KING WAY SOUTH  
*Seattle, Washington*





**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

SOUTH McCLELLAN STREET

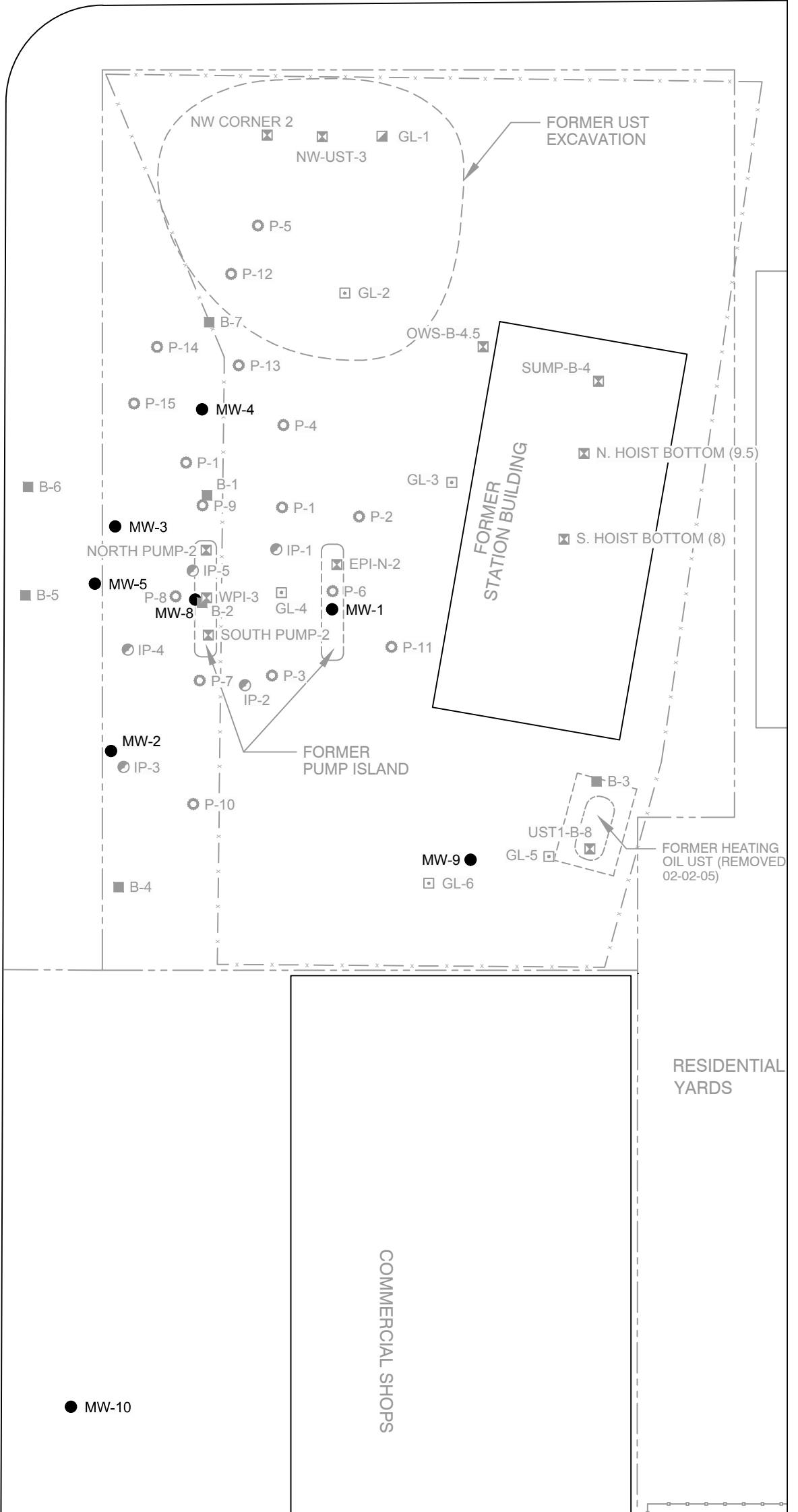


Figure 2

SITE PLAN  
 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
- |      |
|------|
| WELL |
| ELEV |

 WELL DESIGNATION  
GROUNDWATER ELEVATION (MSL)
- 50.0 — GROUNDWATER ELEVATION CONTOUR, IN FEET ABOVE MEAN SEA LEVEL (MSL), DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION AND GRADIENT

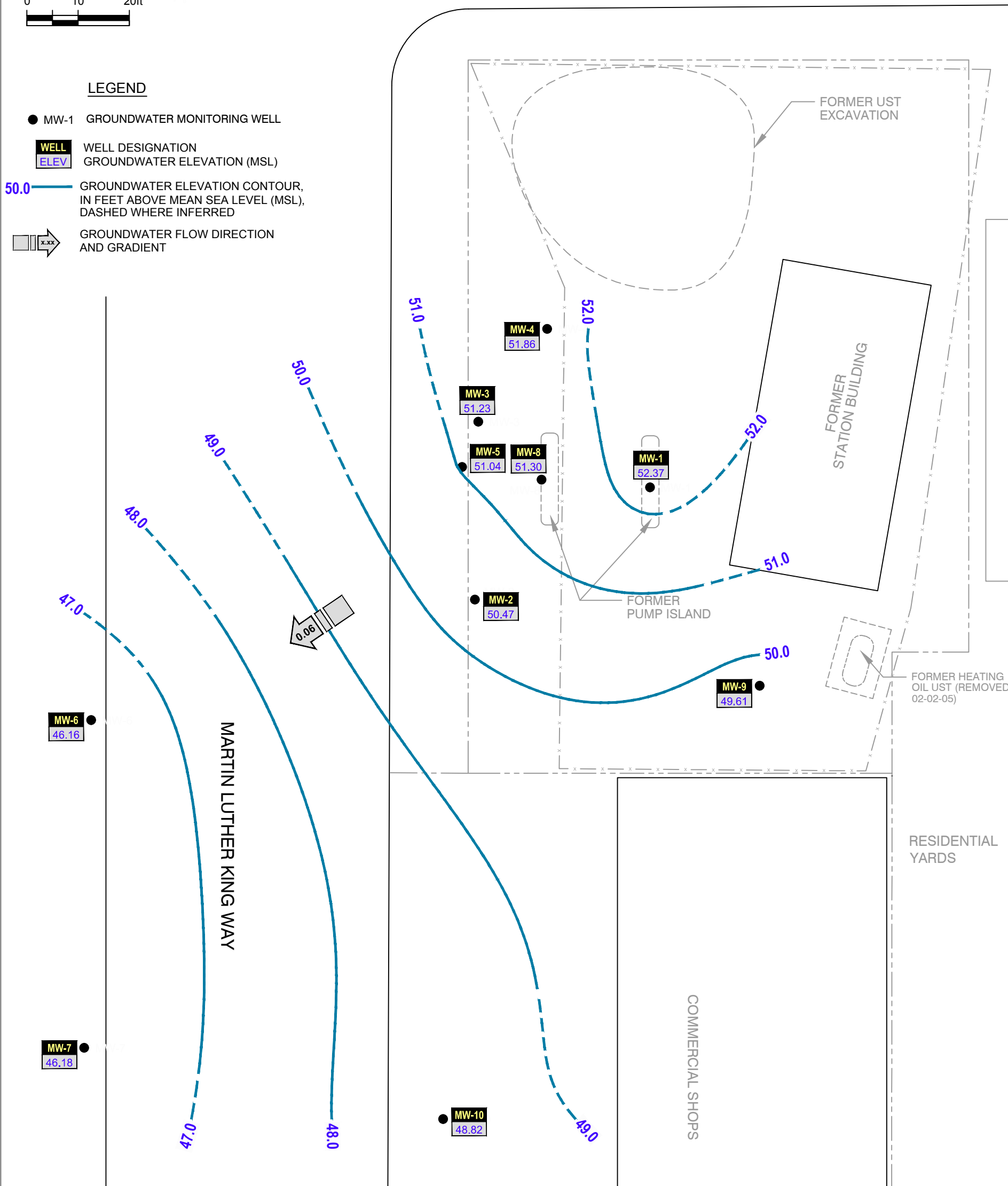


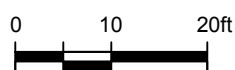
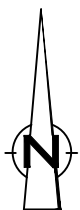
Figure 3

GROUNDWATER ELEVATION CONTOUR MAP  
 FORMER TIDEWATER SERVICE STATION  
 PHILLIPS 66 SITE 5173  
 CHEVRON SITE 301233  
 2800 MARTIN LUTHER KING WAY SOUTH  
 Seattle, Washington  
 May 27, 2014





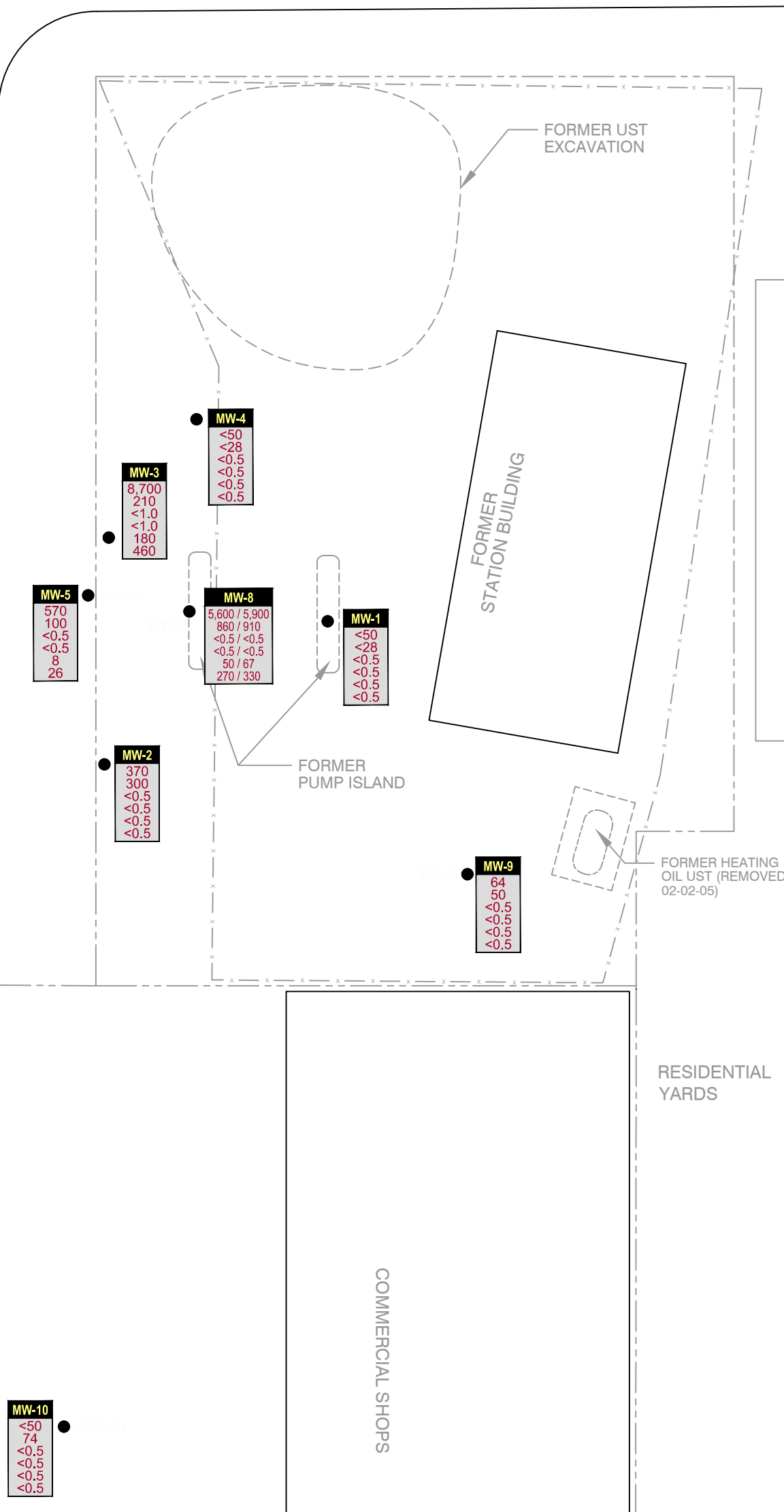
SOUTH McCLELLAN STREET



**LEGEND**

- MW-1 GROUNDWATER MONITORING WELL
- | WELL  | WELL DESIGNATION                   |
|-------|------------------------------------|
| TPHg  | TPHg CONCENTRATION (µg/L)          |
| TPHd  | TPHd CONCENTRATION (µg/L)          |
| BENZ  | BENZENE CONCENTRATION (µg/L)       |
| TOL   | TOLUENE CONCENTRATION (µg/L)       |
| ETH   | ETHYLBENZENE CONCENTRATION (µg/L)  |
| TOTAL | TOTAL XYLENES CONCENTRATION (µg/L) |

D DUPLICATE



<b>MW-6</b>
<50
<28
1
<0.5
<0.5
<0.5

<b>MW-7</b>
<50
<29
<0.5
<0.5
<0.5
<0.5

<b>MW-10</b>
<50
74
<0.5
<0.5
<0.5
<0.5

<b>MW-5</b>
570
100
<0.5
<0.5
8
26

<b>MW-2</b>
370
300
<0.5
<0.5
<0.5
<0.5

<b>MW-3</b>
8,700
210
<1.0
<1.0
180
460

<b>MW-8</b>
5,600 / 5,900
860 / 910
<0.5 / <0.5
<0.5 / <0.5
50 / 67
270 / 330

<b>MW-1</b>
<50
<28
<0.5
<0.5
<0.5
<0.5

<b>MW-4</b>
<50
<28
<0.5
<0.5
<0.5
<0.5

<b>MW-9</b>
64
50
<0.5
<0.5
<0.5
<0.5

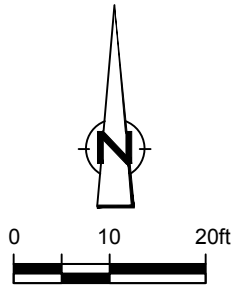
MARTIN LUTHER KING WAY

COMMERCIAL SHOPS

RESIDENTIAL YARDS

Figure 4  
 GROUNDWATER CONCENTRATION MAP  
 FORMER TIDEWATER SERVICE STATION  
 PHILLIPS 66 SITE 5173  
 CHEVRON SITE 301233  
 2800 MARTIN LUTHER KING WAY SOUTH  
 Seattle, Washington  
 May 27 and 28, 2014





SOUTH McCLELLAN STREET

LEGEND

- MW-1 GROUNDWATER MONITORING WELL
- 800 ——— TPHg CONCENTRATION CONTOUR, IN MICROGRAMS PER LITER (µg/L) DASHED WHERE INFERRED
- WELL  
TPHg WELL DESIGNATION  
TPHg CONCENTRATION (µg/L)
- D DUPLICATE

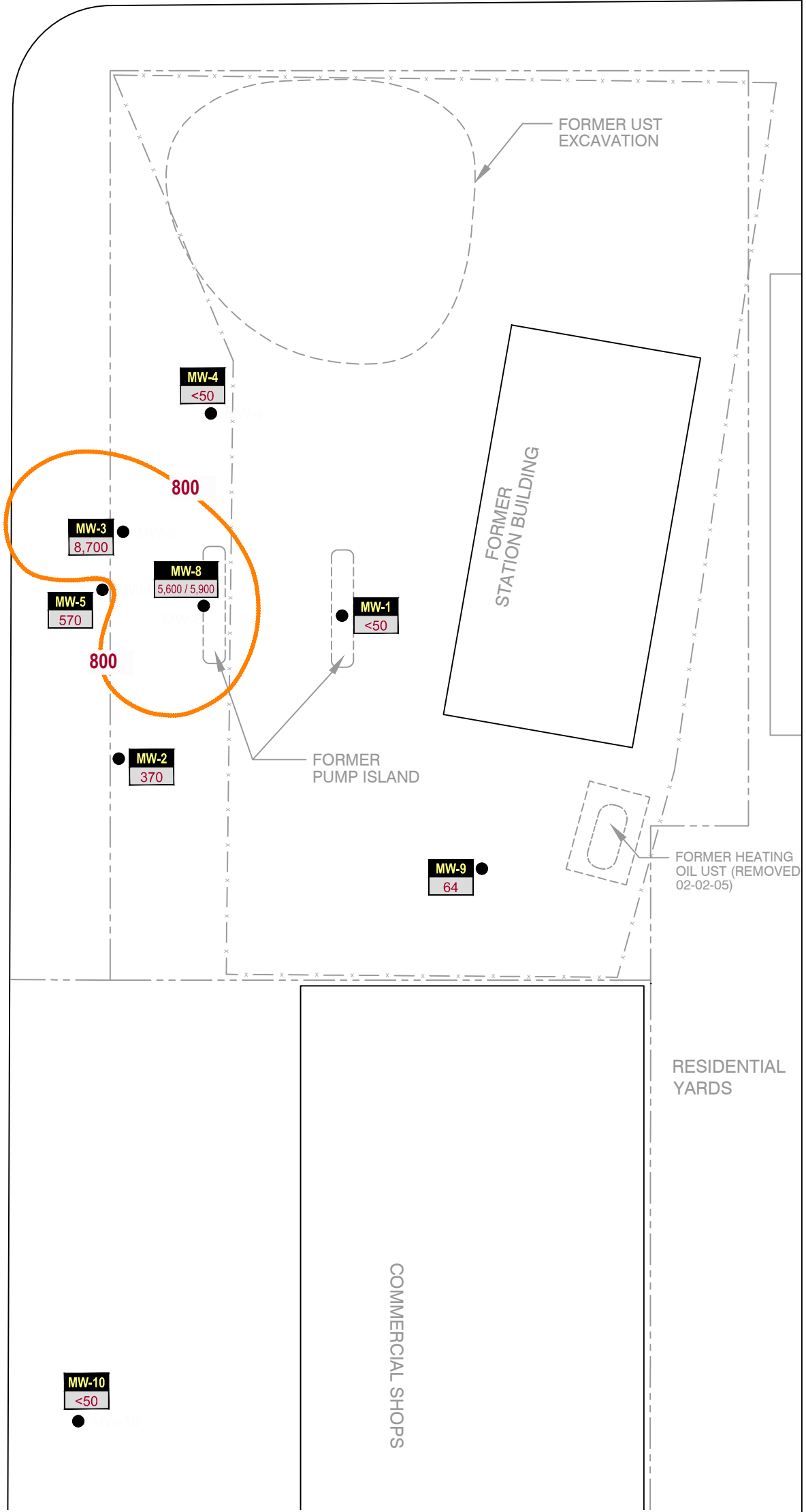
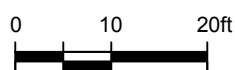
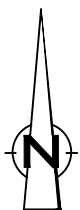


Figure 5

TPHg ISOCONCENTRATION CONTOUR MAP  
 FORMER TIDEWATER SERVICE STATION  
 PHILLIPS 66 SITE 5173  
 CHEVRON SITE 301233  
 2800 MARTIN LUTHER KING WAY SOUTH  
 Seattle, Washington  
 May 27 and 28, 2014



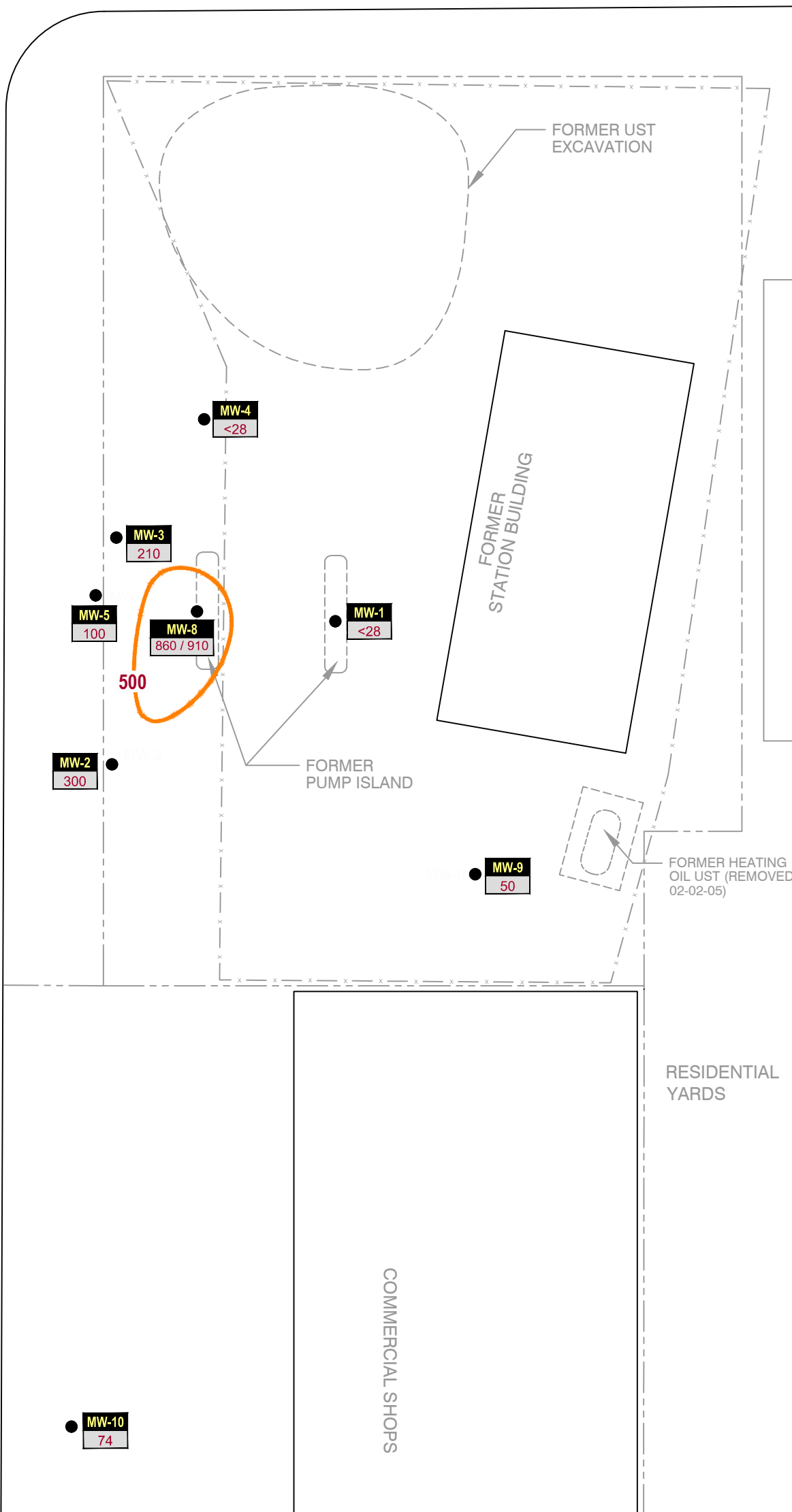
SOUTH McCLELLAN STREET



**LEGEND**

- MW-1 GROUNDWATER MONITORING WELL
- 500 ——— TPHd CONCENTRATION CONTOUR, IN MICROGRAMS PER LITER (µg/L) DASHED WHERE INFERRED
- WELL WELL DESIGNATION
- TPHd TPHd CONCENTRATION (µg/L)
- D DUPLICATE

MARTIN LUTHER KING WAY



MW-6  
<28

MW-7  
<29

MW-2  
300

MW-3  
210

MW-5  
100

MW-8  
860 / 910

MW-4  
<28

MW-1  
<28

MW-9  
50

MW-10  
74

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  
 May 27 and 28, 2014



## 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-DKO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trinitheylbenzene	1,3,5-Trinitheylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	PAHs	
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	<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	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	<1	0.32	-
MW-1	12/05/2012	62.35	9.51	52.84	<50	<29 <sup>4</sup>	<69 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	27.7	-
MW-1	02/26/2013	62.35	10.62	51.73	<50	<30 <sup>4</sup>	<71 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	0.42	-
MW-1	05/23/2013	62.35	11.14	51.21	<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	1.7	-
MW-1	08/29/2013	62.35	12.10	50.25	<50	<29 <sup>4</sup>	<67 <sup>4</sup>	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	0.42	-
MW-1	11/13/2013	62.35	11.79	50.56	<50	<32 <sup>4</sup>	<74 <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-1	03/19/2014	62.35	8.69	53.66	<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	0.20	-
<b>MW-1</b>	<b>05/27/2014</b>	<b>62.35</b>	<b>9.98</b>	<b>52.37</b>	<b>&lt;50</b>	<b>&lt;28<sup>4</sup></b>	<b>&lt;66<sup>4</sup></b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>0.10</b>	<b>-</b>

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-DKO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trinitheylbenzene	1,3,5-Trinitheylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	PAHs	
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	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	-	-	-	-	-	-	-	-	-	-	-
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>d</sup>	<67 <sup>d</sup>	0.9	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<1	<1	<1	48	24	8.3	-	-
MW-2	12/05/2012	60.72	10.61	50.11	590	250 <sup>d</sup>	<73 <sup>d</sup>	2	<0.5	3	11	<0.5	<0.5	<0.5	<1	<1	<1	37	17	13.1	-	-
MW-2	02/26/2013	60.72	10.57	50.15	770	150 <sup>d</sup>	<68 <sup>d</sup>	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	39	19	0.19	-	-
MW-2	05/23/2013	60.72	11.15	49.57	470	200 <sup>d</sup>	<66 <sup>d</sup>	0.7	<0.5	<0.5	3	<0.5	<0.5	<0.5	<1	<1	<1	46	21	0.12	-	-
MW-2	08/29/2013	60.72	12.11	48.61	740	200 <sup>d</sup>	<67 <sup>d</sup>	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<1	<1	36	17	0.36	-	-

TABLE 1

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

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs														
					TPH-GRO	TPH-DKO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trinitheylbenzene	1,3,5-Trinitheylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	PAHs	
	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
MW-2	11/13/2013	60.72	11.69	49.03	700	160 <sup>d</sup>	<67 <sup>d</sup>	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	48	21	0.14	-
MW-2	03/18/2014	60.72	10.31	50.41	870	180 <sup>d</sup>	<66 <sup>d</sup>	0.9	<0.5	3	2	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	39	19	0.90	-
<b>MW-2</b>	<b>05/27/2014</b>	<b>60.72</b>	<b>10.25</b>	<b>50.47</b>	<b>370</b>	<b>300<sup>d</sup></b>	<b>&lt;66<sup>d</sup></b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>23</b>	<b>9</b>	<b>0.42</b>	<b>-</b>
MW-3	08/19/2005	97.43	12.72	84.71	44,000	-	-	4.1	18	780	3,600	-	-	-	-	-	-	-	-	-	-	-
MW-3	12/27/2005	97.43	13.42	84.01	17,000	-	-	ND	38	580	3,000	-	-	-	-	-	-	-	-	-	-	-
MW-3	12/28/2005	-	-	-	6,600	-	-	5	22	200	1,100	-	-	-	-	-	-	-	-	-	-	-
MW-3	01/12/2006	97.43	8.84	88.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	03/02/2006	97.43	10.90	86.53	22,000	-	-	ND	26	450	4,200	-	-	-	-	-	-	-	-	-	-	-
MW-3	04/13/2006	97.43	11.92	85.51	33,000	-	-	ND	3	700	3,100	-	-	-	-	-	-	-	-	-	-	-
MW-3	06/28/2006	97.43	12.17	85.26	53,000	-	-	ND	17	530	2,600	-	-	-	-	-	-	-	-	-	-	-
MW-3	08/13/2006	97.43	13.91	83.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	09/11/2006	97.43	13.77	83.66	14,000	-	-	ND	5.6	180	1,100	-	-	-	-	-	-	-	-	-	-	-
MW-3	10/13/2006	97.43	-	-	1,400	-	-	ND	1	26	98	-	-	-	-	-	-	-	-	-	-	-
MW-3	11/17/2006	97.43	10.56	86.87	48,000	-	-	ND	34	490	4,100	-	-	-	-	-	-	-	-	-	-	-
MW-3	12/01/2006	97.43	9.78	87.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	12/06/2006	97.43	10.01	87.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	01/12/2007	97.43	10.90	86.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	02/12/2007	97.43	-	-	36,000	-	-	ND	10	280	1,800	-	-	-	-	-	-	-	-	-	-	-
MW-3	02/28/2007	97.43	11.12	86.31	22,000	-	-	ND	6	200	1,400	-	-	-	-	-	-	-	-	-	-	-
MW-3	03/07/2007	97.43	11.17	86.26	21,000	-	-	ND	18	170	1,000	-	-	-	-	-	-	-	-	-	-	-
MW-3	04/11/2007	97.43	11.04	86.39	19,000	-	-	ND	6	110	1,100	-	-	-	-	-	-	-	-	-	-	-
MW-3	11/12/2009	97.43	11.98	85.45	71.7	-	-	ND	<1.0	<1.0	<3.0	-	-	-	-	-	-	-	-	-	-	-
MW-3	08/31/2011	61.81	12.10	49.71	7,400	370	<68	<1.0	<1	190	554	<2	<2	<1	67	1,300	330	140	47	-	-	-
MW-3	12/15/2011	61.81	11.38	50.43	5,400	<29	<67	<0.5	<0.7	120	400	<1	<1	<0.5	50	950	210	110	37	-	-	-



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-DKO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trinitrobenzene	1,3,5-Trinitrobenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	PAHs	
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	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>d</sup>	<67 <sup>d</sup>	<1	<1	140	610	<1	<1	<1	71	830	140	86	33	0.98	-	
MW-3	12/06/2012	61.81	9.91	51.90	6,700	290 <sup>d</sup>	<69 <sup>d</sup>	<0.5	<0.5	160	480	<0.5	<0.5	<0.5	75	860	160	100	41	0.36	-	
MW-3	02/27/2013	61.81	10.88	50.93	9,500	510 <sup>d</sup>	<66 <sup>d</sup>	<0.5	<0.5	190	620	<0.5	<0.5	<0.5	73	1,200	240	130	51	0.70	-	
MW-3	05/23/2013	61.81	11.00	50.81	5,800	240 <sup>d</sup>	<67 <sup>d</sup>	<0.5	<0.5	160	550	<0.5	<0.5	<0.5	82	1,200	170	130	45	2.6	-	
MW-3	08/30/2013	61.81	12.04	49.77	4,300	260 <sup>d</sup>	<70 <sup>d</sup>	<0.5	<0.5	54	190	<0.5	<0.5	<0.5	33	680	52	81	33	0.26	-	
MW-3	11/13/2013	61.81	11.59	50.22	3,100	120 <sup>d</sup>	<67 <sup>d</sup>	<0.5	<0.5	33	120	<0.5	<0.5	<0.5	20	440	23	86	31	0.30	-	
MW-3	03/19/2014	61.81	9.20	52.61	6,300	180 <sup>d</sup>	<66 <sup>d</sup>	<0.5	<0.5	100	410	<0.5	<0.5	<0.5	49	790	99	82	35	1.2	-	
<b>MW-3</b>	<b>05/27/2014</b>	<b>61.81</b>	<b>10.58</b>	<b>51.23</b>	<b>8,700</b>	<b>210<sup>d</sup></b>	<b>&lt;66<sup>d</sup></b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>180</b>	<b>460</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>54</b>	<b>1,600</b>	<b>65</b>	<b>170</b>	<b>63</b>	<b>0.65</b>	<b>-</b>	
MW-4	06/28/2006	98.36	12.40	85.96	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	
MW-4	12/01/2006	98.36	9.90	88.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-4	12/06/2006	98.36	10.21	88.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-4	02/28/2007	98.36	11.43	86.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-4	03/07/2007	98.36	11.49	86.87	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	
MW-4	04/11/2007	98.36	11.27	87.09	ND	-	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	
MW-4	11/12/2009	98.36	11.82	86.54	<50	-	-	<1.0	<1.0	<1.0	<3.0	-	-	-	-	-	-	-	-	-	-	
MW-4	08/31/2011	62.75	12.42	50.33	<50	<29	<68	<0.5	<0.7	<0.8	<0.8	<2	<2	<0.5	<1	<1	<1	<1	<1	-	-	
MW-4	12/15/2011	62.75	11.69	51.06	<50	<29	<67	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-	
MW-4	02/06/2012	62.75	10.50	52.25	<50	55	<67	<0.5	<0.7	<0.8	<1.6	<2	<2	<0.5	<1	<1	<1	<1	<1	-	-	
MW-4	05/30/2012	62.75	11.11	51.64	<50	<29	<67	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	1.8	0.007248	
MW-4	08/07/2012	62.75	11.76	50.99	<50	<29 <sup>d</sup>	<68 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.34	-	
MW-4	12/05/2012	62.75	10.19	52.56	<50	<32 <sup>d</sup>	<75 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	4.0	-	
MW-4	02/26/2013	62.75	11.15	51.60	<50	<28 <sup>d</sup>	<66 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.16	-	

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-DKO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trinitheylbenzene	1,3,5-Trinitheylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	PAHs	
	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
MW-4	05/23/2013	62.75	11.35	51.40	<50	<29 <sup>4</sup>	<67 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.74	-
MW-4	08/29/2013	62.75	12.41	50.34	<50	<29 <sup>4</sup>	<67 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.085	-
MW-4	11/13/2013	62.75	11.98	50.77	<50	<31 <sup>4</sup>	<73 <sup>4</sup>	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.085	-
MW-4	03/18/2014	62.75	9.29	53.46	<50	<29 <sup>4</sup>	<67 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.14	-
<b>MW-4</b>	<b>05/27/2014</b>	<b>62.75</b>	<b>10.89</b>	<b>51.86</b>	<50	<28 <sup>4</sup>	<66 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.085	-
MW-5	06/28/2006	97.20	12.09	85.11	21,000	-	-	ND	14	290	920	-	-	-	-	-	-	-	-	-	-	-
MW-5	09/11/2006	97.20	13.63	83.57	2,500	-	-	ND	ND	34	60	-	-	-	-	-	-	-	-	-	-	-
MW-5	11/17/2006	97.20	10.57	86.63	23,000	-	-	ND	52	450	1,700	-	-	-	-	-	-	-	-	-	-	-
MW-5	12/01/2006	97.20	9.75	87.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	01/12/2007	97.20	10.85	86.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	02/12/2007	97.20	-	-	37,000	-	-	ND	33	1,600	2,800	-	-	-	-	-	-	-	-	-	-	-
MW-5	02/28/2007	97.20	11.05	86.15	29,000	-	-	ND	24	550	1,800	-	-	-	-	-	-	-	-	-	-	-
MW-5	03/07/2007	97.20	11.11	86.09	42,000	-	-	11	24	740	2,500	-	-	-	-	-	-	-	-	-	-	-
MW-5	04/11/2007	97.20	10.96	86.24	65,000	-	-	ND	79	850	4,000	-	-	-	-	-	-	-	-	-	-	-
MW-5	11/12/2009	97.20	12.10	85.10	2,340	-	-	1	36	<1.0	125	-	-	-	-	-	-	-	-	-	-	-
MW-5	08/31/2011	61.66	12.80	48.86	3,100	770	<67	2	1	72	124	<1	<1	<0.5	120	130	18	210	78	-	-	
MW-5	12/15/2011	61.66	11.41	50.25	1,900	66	<67	1	0.9	24	33	<1	<1	<0.5	81	43	3	120	43	-	-	
MW-5	02/06/2012	61.66	10.54	51.12	1,200	34	<68	0.8	<0.7	12	43	<1	<1	<0.5	37	31	6	55	21	-	-	
MW-5	05/30/2012	61.66	10.91	50.75	260	54	<66	<0.5	<0.7	3	7	<1	<1	<0.5	12	4	<1	24	9	0.48	0.009168	
MW-5	08/07/2012	61.66	11.39	50.27	610	190 <sup>4</sup>	<66 <sup>4</sup>	<0.5	<0.5	11	22	<0.5	<0.5	<0.5	21	33	12	32	13	5.1	-	
MW-5	12/06/2012	61.66	9.74	51.92	170	40 <sup>4</sup>	<76 <sup>4</sup>	<0.5	<0.5	2	8	<0.5	<0.5	<0.5	8	3	<1	12	4	0.17	-	
MW-5	02/27/2013	61.66	11.03	50.63	790	170 <sup>4</sup>	<69 <sup>4</sup>	<0.5	0.6	7	12	<0.5	<0.5	<0.5	25	9	1	42	19	0.76	-	
MW-5	05/23/2013	61.66	10.90	50.76	360	64 <sup>4</sup>	<67 <sup>4</sup>	<0.5	<0.5	4	6	<0.5	<0.5	<0.5	25	4	<1	34	13	0.80	-	
MW-5	08/30/2013	61.66	12.19	49.47	3,200	340 <sup>4</sup>	<69 <sup>4</sup>	0.7	1	49	89	<0.5	<0.5	<0.5	92	92	16	160	59	1.2	-	

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-Trinitheylbenzene	1,3,5-Trinitheylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	PAHs	
	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
MW-5	11/14/2013	61.66	11.64	50.02	2,000	240 <sup>d</sup>	<75 <sup>d</sup>	0.7	0.7	19	14	<0.5	<0.5	<0.5	54	6	<1	130	44	0.31	-	
MW-5	03/19/2014	61.66	9.21	52.45	1,700	110 <sup>d</sup>	<67 <sup>d</sup>	<0.5	<0.5	34	150	<0.5	<0.5	<0.5	26	170	27	52	19	0.17	-	
<b>MW-5</b>	<b>05/28/2014</b>	<b>61.66</b>	<b>10.62</b>	<b>51.04</b>	<b>570</b>	<b>100<sup>d</sup></b>	<b>&lt;67<sup>d</sup></b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>8</b>	<b>26</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>9</b>	<b>16</b>	<b>6</b>	<b>41</b>	<b>14</b>	<b>0.16</b>	<b>-</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	-	-	
MW-6	02/06/2012	58.03	11.80	46.23	<50	<29	<68	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-	
MW-6	05/30/2012	58.03	12.03	46.00	<50	<29	<68	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	2.5	-	
MW-6	08/07/2012	58.03	12.21	45.82	<50	<28 <sup>d</sup>	<66 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.15	-	
MW-6	12/06/2012	58.03	11.60	46.43	<50	<31 <sup>d</sup>	<73 <sup>d</sup>	<0.5	<0.5	1	6	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	1.1	-	
MW-6	02/27/2013	58.03	11.77	46.26	<50	<30 <sup>d</sup>	<70 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.68	-	
MW-6	05/24/2013	58.03	11.91	46.12	<50	<30 <sup>d</sup>	<70 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.20	-	
MW-6	08/29/2013	58.03	12.21	45.82	<50	<28 <sup>d</sup>	<66 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.087	-	
MW-6	11/14/2013	58.03	12.12	45.91	<50	<29 <sup>d</sup>	<67 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.15	-	
MW-6	03/18/2014	58.03	11.38	46.65	<50	<29 <sup>d</sup>	<68 <sup>d</sup>	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.97	-	
<b>MW-6</b>	<b>05/28/2014</b>	<b>58.03</b>	<b>11.87</b>	<b>46.16</b>	<b>&lt;50</b>	<b>&lt;28<sup>d</sup></b>	<b>&lt;66<sup>d</sup></b>	<b>1</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>30.5</b>	<b>-</b>	
MW-7	08/31/2011	56.96	11.15	45.81	<50	<29	<67	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-	
MW-7	12/15/2011	56.96	10.93	46.03	<50	45	89	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-	
MW-7	02/06/2012	56.96	10.75	46.21	<50	<29	<68	<0.5	2	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-	
MW-7	05/30/2012	56.96	10.93	46.03	<50	37	160	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	13.8	0.097	
MW-7	08/07/2012	56.96	11.70	45.26	<50	<28 <sup>d</sup>	<66 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	31.7	-	
MW-7	12/06/2012	56.96	10.46	46.50	<50	<29 <sup>d</sup>	<67 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	40.3	-	
MW-7	02/27/2013	56.96	10.69	46.27	<50	<29 <sup>d</sup>	<68 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	76.5	-	
MW-7	05/24/2013	56.96	10.81	46.15	<50	<31 <sup>d</sup>	<72 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	1.9	-	

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-DKO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trinitheylbenzene	1,3,5-Trinitheylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	PAHs	
	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
MW-7	08/29/2013	56.96	11.05	45.91	<50	<29 <sup>d</sup>	<67 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	2.9	-
MW-7	11/14/2013	56.96	10.96	46.00	<50	<29 <sup>d</sup>	<67 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	22.7	-
MW-7	03/18/2014	56.96	10.39	46.57	<50	<29 <sup>d</sup>	<68 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	79.3	-
<b>MW-7</b>	<b>05/28/2014</b>	<b>56.96</b>	<b>10.78</b>	<b>46.18</b>	<b>&lt;50</b>	<b>&lt;29<sup>d</sup></b>	<b>&lt;67<sup>d</sup></b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>9.7</b>	<b>-</b>
MW-8	08/31/2011	61.71	12.01	49.70	4,400	240	<67	<0.5	<0.7	41	442	<1	<1	<0.5	33	500	130	26	11	-	-	
MW-8	12/15/2011	61.71	11.25	50.46	8,100	96	<67	<0.5	<0.7	79	880	<1	<1	<0.5	72	900	230	46	20	-	-	
MW-8	02/06/2012	61.71	10.00	51.71	13,000	290	<69	<1	<1	110	1,280	<2	<2	<1	89	1,400	450	36	18	-	-	
MW-8	05/30/2012	61.71	10.69	51.02	9,500	700	<68	<1	<1	110	1,300	<2	<2	<1	96	1,100	310	59	28	7.1	0.007324	
MW-8 DUP	05/30/2012	61.71	10.69	51.02	10,000	450	<66	<1	<1	110	1,300	<2	<2	<1	93	1,300	340	58	27	5.3	0.007248	
MW-8	08/08/2012	61.71	11.30	50.41	9,300	290 <sup>d</sup>	<66 <sup>d</sup>	<1	<1	92	850	<1	<1	<1	73	910	190	49	22	3.4	-	
MW-8 DUP	08/08/2012	61.71	11.30	50.41	11,000	240 <sup>d</sup>	<66 <sup>d</sup>	<1	<1	83	710	<1	<1	<1	67	680	140	44	20	3.6	-	
MW-8	12/05/2012	61.71	9.61	52.10	13,000	2,600 <sup>d</sup>	200 <sup>d</sup>	<0.5	0.8	95	1,100	<0.5	<0.5	<0.5	93	1,400	380	61	27	27.6	-	
MW-8 DUP	12/05/2012	61.71	9.61	52.10	12,000	2,600 <sup>d</sup>	240 <sup>d</sup>	<0.5	0.8	91	1,100	<0.5	<0.5	<0.5	91	1,400	360	58	26	27.4	-	
MW-8	02/26/2013	61.71	10.71	51.00	12,000	780 <sup>d</sup>	<70 <sup>d</sup>	<0.5	0.6	100	800	<0.5	<0.5	<0.5	86	1,200	280	63	29	5.2	-	
MW-8 DUP	02/26/2013	61.71	10.71	51.00	11,000	540 <sup>d</sup>	<69 <sup>d</sup>	<0.5	0.6	100	770	<0.5	<0.5	<0.5	72	1,100	280	60	29	5.3	-	
MW-8	05/23/2013	61.71	10.87	50.84	6,800	380 <sup>d</sup>	<68 <sup>d</sup>	<0.5	<0.5	87	700	<0.5	<0.5	<0.5	86	1,200	190	62	25	4.0	-	
MW-8 DUP	05/23/2013	61.71	10.87	50.84	7,000	380 <sup>d</sup>	<68 <sup>d</sup>	<0.5	0.5	100	810	<0.5	<0.5	<0.5	94	1,300	240	73	29	3.5	-	
MW-8	08/29/2013	61.71	12.00	49.71	6,600	340 <sup>d</sup>	<66 <sup>d</sup>	<0.5	<0.5	60	450	<0.5	<0.5	<0.5	49	680	110	47	20	2.1	-	
MW-8 DUP	08/30/2013	61.71	12.00	49.71	3,500	220 <sup>d</sup>	<66 <sup>d</sup>	<0.5	<0.5	47	350	<0.5	<0.5	<0.5	39	510	83	45	18	1.2	-	
MW-8	11/14/2013	61.71	11.52	50.19	8,900	390 <sup>d</sup>	<67 <sup>d</sup>	<0.5	0.5	79	740	<0.5	<0.5	<0.5	67	1,000	180	65	26	3.1	-	
MW-8 DUP	11/14/2013	61.71	11.52	50.19	8,000	320 <sup>d</sup>	<67 <sup>d</sup>	<0.5	0.6	81	760	<0.5	<0.5	<0.5	66	1,100	180	65	27	3.2	-	
MW-8	03/19/2014	61.71	8.73	52.98	8,400	2,400 <sup>d</sup>	<67 <sup>d</sup>	<0.5	<0.5	33	370	<0.5	<0.5	<0.5	57	800	250	28	12	12.6	-	
MW-8 DUP	03/19/2014	61.71	8.73	52.98	8,800	2,200 <sup>d</sup>	110 <sup>d</sup>	<0.5	<0.5	42	480	<0.5	<0.5	<0.5	66	960	280	40	17	10.5	-	
<b>MW-8</b>	<b>05/28/2014</b>	<b>61.71</b>	<b>10.41</b>	<b>51.30</b>	<b>5,600</b>	<b>860<sup>d</sup></b>	<b>&lt;67<sup>d</sup></b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>50</b>	<b>270</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>39</b>	<b>740</b>	<b>130</b>	<b>24</b>	<b>13</b>	<b>3.9</b>	<b>-</b>	

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-DKO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trinitheylbenzene	1,3,5-Trinitheylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	PAHs	
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-8 DUP	05/28/2014	61.71	10.41	51.30	5,900	910 <sup>4</sup>	<67 <sup>4</sup>	<0.5	<0.5	67	330	<0.5	<0.5	<0.5	59	750	190	41	19	4.2	-	
MW-9	08/31/2011	62.58	14.29	48.29	<50	78	<68	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-	
MW-9	12/15/2011	62.58	13.01	49.57	<50	<29	<67	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-	
MW-9	02/06/2012	62.58	12.04	50.54	66	<300	<700 <sup>1</sup>	<0.5	<0.7	<0.8	<1.6	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-	
MW-9	05/30/2012	52.58	12.53	40.05	66	<29	<67	<0.5	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	0.31	0.007248	
MW-9	08/08/2012	62.58	13.37	49.21	<50	<29 <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	0.87	-	
MW-9	12/05/2012	62.58	12.05	50.53	<50	39 <sup>4</sup>	<69 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	0.33	-	
MW-9	02/26/2013 <sup>5</sup>	62.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-9	05/24/2013	62.58	13.05	49.53	100	<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	0.24	-	
MW-9	08/29/2013	62.58	14.77	47.81	<50	51 <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	<0.085	-	
MW-9	11/13/2013	62.58	13.41	49.17	120	<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	0.087	-	
MW-9	03/18/2014	62.58	12.07	50.51	96	37 <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	0.087	-	
<b>MW-9</b>	<b>05/27/2014</b>	<b>62.58</b>	<b>12.97</b>	<b>49.61</b>	<b>64</b>	<b>50<sup>4</sup></b>	<b>&lt;67<sup>4</sup></b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>0.092</b>	<b>-</b>	
MW-10	08/31/2011	58.96	11.94	47.02	<50	260	100	2	<0.7	<0.8	<0.8	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-	
MW-10	12/15/2011	58.96	11.13	47.83	51	<28	<66	3	<0.7	<0.8	0.8	<1	<1	<0.5	<1	<1	<1	2	<1	-	-	
MW-10	02/06/2012	58.96	10.44	48.52	<50 <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	-	
MW-10	12/06/2012	58.96	11.31	47.65	130	220 <sup>4</sup>	<72 <sup>4</sup>	3	0.6	<0.5	4	<0.5	<0.5	<0.5	<1	<1	<1	24	10	0.28	-	
MW-10	02/27/2013	58.96	10.49	48.47	<50	71 <sup>4</sup>	<69 <sup>4</sup>	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	2	<1	<0.073	-	
MW-10	05/24/2013	58.96	10.94	48.02	<50	<29 <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	<0.073	-	
MW-10	08/30/2013	58.96	12.13	46.83	<50	57 <sup>4</sup>	<66 <sup>4</sup>	0.8	<0.5	<0.5	1	<0.5	<0.5	<0.5	<1	<1	<1	3	1	0.10	-	

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-Trinitheylbenzene	1,3,5-Trinitheylbenzene	N-Propylbenzene	Isopropyl benzene	Lead (Total)	PAHs	
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	11/13/2013	58.96	11.76	47.20	210	50 <sup>d</sup>	<67 <sup>d</sup>	2	<0.5	<0.5	3	<0.5	<0.5	<0.5	<1	1	<1	13	5	0.39	-	
MW-10	03/18/2014	58.96	11.29	47.67	520	190 <sup>d</sup>	<66 <sup>d</sup>	2	0.7	<0.5	6	<0.5	<0.5	<0.5	<1	<1	<1	40	20	<0.085	-	
<b>MW-10</b>	<b>05/27/2014</b>	<b>58.96</b>	<b>10.14</b>	<b>48.82</b>	<b>&lt;50</b>	<b>74<sup>d</sup></b>	<b>&lt;67<sup>d</sup></b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>2</b>	<b>&lt;1</b>	<b>0.11</b>	<b>-</b>	
Trip Blank	08/08/2012	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	-	-	
Trip Blank	12/05/2012	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	-	-	
Trip Blank	02/26/2013	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	-	-	
Trip Blank	05/23/2013	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	
Trip Blank	08/29/2013	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	-	-	
Trip Blank	11/13/2013	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	
Trip Blank	03/19/2014	-	-	-	<50	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	
<b>Trip Blank</b>	<b>05/27/2014</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>&lt;50</b>	<b>-</b>	<b>-</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>-</b>	<b>-</b>	

**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

**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-DKO	TPH-HRO	B	T	E	X	EDB	EDC	MTBE	Naphthalene	1,2,4-Trinitheylbenzene	1,3,5-Trinitheylbenzene	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

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylene's (Total)

Xylenes = o-xylene + m,p-xylene

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

EDB = 1,2 Dibromoethane analyzed by EPA Method 8011

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

MTBE = Methyl tert butyl ether

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

Total Lead analyzed by EPA Method 6020

-- = Not available / not applicable. 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.
- 5 Inaccessible.



ATTACHMENT A

MONITORING DATA PACKAGE

### WATER LEVEL RECORD

PROJECT NAME: Tidewater

LOCATION: 2800 MLK

JOB NO. : 061992

DATE: 5/27/14

CLIENT: P66

ENGINEER/GEOLOGIST: \_\_\_\_\_

OBSERVATION WELL	TOP OF CASING ELEVATION A		DEPTH TO WATER B		DEPTH TO PRODUCT C		WATER LEVEL ELEVATION A-B	
	feet	metres	feet	metres	feet	metres	feet	metres
	MW-84			10.89				
<del>MW-8</del>			10.41					
MW-2			10.25					
MW-10			10.14					
MW-3			10.58			P		
MW-1			9.98					
MW-5			10.62					
MW-9			12.97					
MW-6			11.87					
MW-7			10.78					

**CRA**

Date: 5-27-14

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

Location: MW-1  
 Name of Sampler: Ben Paul  
 Weather: Cloudy/Sunny

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

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
 x Location ID

GW- 052714-BP-MW-1

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

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

Sample Method: low flow  
 Purge Start: 1118  
 Sample Time: 1155

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
1120	6.60	0.440	227.0	7.12	14.87	17	0.0	0.29	0.1			clear w/ yellowish
1125	6.51	0.446	211.0	5.95	14.38	21	0.0	0.29	0.25			tiny sediment
1130	6.47	0.444	205.0	5.62	14.09	24	0.0	0.29	0.50			
1135	6.45	0.442	169.0	5.37	14.14	28	0.0	0.29	0.8		12:02	
1140	6.43	0.443	126.0	5.14	14.19	34	0.0	0.29	1.3			
1145	6.42	0.444	109.0	5.11	14.15	36	0.0	0.29	1.8		12.14	
1150	6.42	0.443	103.0	5.09	14.07	39	0.0	0.29				

Analysis:  
 Groundwater

Preservative  
 none


Signed \_\_\_\_\_

Notes:

2 samples field filtered 20 cent isotopes

NT 03583 Horton

Date: 5/27/14

Water Quality Meter S/N: 0526

Location: MW-2  
 Name of Sampler: JS  
 Weather: Cloudy

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

Depth to Water: 10.54 Sample Depth: 11.22 ~ 11.60  
 Depth to Bottom: 21.80

Sample IDs (GW-mmddy-AA-XXX)

A Samplers Initials  
 x Location ID

GW-052714-JS-MW-2

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

Sample Method: low flow  
 Purge Start: 11:31  
 Sample Time: 12:00

1 Well Volume: \_\_\_\_\_  
 3 Well Volumes: \_\_\_\_\_

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

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
11:35	7.37	0.466	68.7	3.91	16.68	-90	0.0	0.30			11.08	
11:38	6.88	0.554	45.3	2.79	16.62	-81	0.0	0.26			11.13	
11:41	6.66	0.560	41.0	2.58	16.42	-76	0.0	0.26			11.16	
11:44	6.52	0.446	34.6	2.43	16.47	-77	0.0	0.35			11.18	
11:47	6.50	0.508	33.6	2.38	16.48	-79	0.0	0.32			11.19	
11:50	6.51	0.478	30.4	2.36	16.43	-83	0.0	0.31			11.20	
11:53	6.55	0.466	35.0	2.37	16.14	-88	0.0	0.30			11.21	
11:56	6.61	0.465	34.2	2.34	16.18	-90	0.0	0.30			11.22	
12:00	collected sample											

Analysis: Groundwater

TPH-GRO  
 TPH-DRO  
 BTEX+VOCs  
 PAHs  
 Total Lead

3
2
3
2
1

Preservative

none  
 Hcl  
 Hcl  
 Hcl  
 none  
 HNO3

Signed: [Signature]

Notes:

all samples field filtered except isotopes

Date: 5/27/14

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

Location: MW-3  
 Name of Sampler: JS  
 Weather: partly cloudy  
 Depth to Water: 10.57  
 Depth to Bottom: 20.53

Sample Depth: 11.00 ~ 11.20

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

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
 x Location ID

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

GW- 052714-JS-MW-3

Sample Method: low flow  
 Purge Start: 12:25  
 Sample Time: 12:50

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
12:29	6.88	0.444	117.0	4.19	17.36	-119	0.0	0.09			10.80	
12:32	6.69	0.442	72.2	2.81	17.19	-120	0.0	0.09			10.84	
12:35	6.43	0.445	50.6	2.26	16.29	-113	0.0	0.09			10.90	
12:38	6.36	0.445	40.4	2.13	16.20	-114	0.0	0.09			10.93	
12:41	6.58	0.447	33.0	1.88	15.99	-117	0.0	0.09			10.95	
12:44	6.41	0.447	39.1	1.75	16.03	-121	0.0	0.09			10.97	
12:47	6.47	0.448	35.4	1.68	15.93	-125	0.0	0.09			10.99	
12:50	collect samples											

Analysis:  
 Groundwater

TPH-GRO  
 TPH-DRO  
 BTEX+VOCs  
 PAHs  
 Total lead


Preservative  
 none HCl

HCl  
 HCl  
 None  
 HNO3

Signed [Signature]

Notes:

~~200mls field filtered except isotopes~~

Date: 5/22/14

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

Location: MW-4  
 Name of Sampler: Bru Paulley  
 Weather: Sunny

QA/QC	<input checked="" type="checkbox"/>
MS/MSD	<input type="checkbox"/>
Duplicate	<input type="checkbox"/>
Blank	<input type="checkbox"/>
QA/QC Sample ID (GW-mmddyy-AA-XXX)	
_____	

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

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
 x Location ID

GW- 052214-Bp-MW-4

Sample Method: low flow  
 Purge Start: 1250  
 Sample Time: 1320

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
1255	6.67	0.612	135.0	9.16	15.53	-70	0.0	0.39	0.1		10.93	clear slight Brown
1258	6.62	0.605	187.0	7.37	14.94	-81	0.0	0.39	0.2		11.20	clear
1300	6.60	0.600	173.0	6.60	14.81	-88	0.0	0.38	0.4			
1305	6.60	0.596	157.0	6.01	14.80	-93	0.0	0.38	0.7		11.28	
1310	6.60	0.594	175.0	5.79	14.72	-96	0.0	0.38	1.2			
1315	6.60	0.591	157.0	5.46	14.82	-98	0.0	0.38	1.8		11.30	

Analysis:  
 Groundwater  
 TPH GRO  
 TPH DRO  
 VOCs  
 PAHs  
 lead

9  
 6  
 9  
 2  
 1

Preservative  
 none

Signed \_\_\_\_\_

Notes: MS/MSD  
 All samples field filtered except isotopes  
 18 VOCs  
 6 (lit) - MS/MSD

Date: 5/28/14

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

Location: MW-5  
Name of Sampler: JS  
Weather: cloudy

Depth to Water: 10.66  
Depth to Bottom: 19.91  
Sample Depth: NA (can't take WL reading due to the well core 1" well)

Sample IDs (GW-mmddyy-AA-XXX)  
GW- 052814-JS-MW-5

A Samplers Initials  
x Location ID

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

Sample Method: low flow  
Purge Start: 10:51  
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
10:53	7.00	0.488	35.0	4.06	16.62	-83	0.0	0.31			NA	can not take WL reading
10:56	6.96	0.453	30.6	3.21	16.48	-74	0.0	0.29			NA	since well is a 1" well
10:59	6.94	0.423	125.0	3.02	16.33	-57	0.0	0.28			NA	W/L can't be put into
11:02	6.95	0.422	49.3	3.04	16.11	-53	0.0	0.27			NA	the well w/ tubing in well
11:05	6.96	0.423	38.2	3.05	15.98	-51	0.0	0.27			NA	at the same time
11:08	6.97	0.424	43.8	3.03	15.87	-50	0.0	0.27			NA	
11:10	start collect sample											

Analysis:  
Groundwater

TPH-GRO  
TPH-DRO  
BTEX+VOCs  
PAHs  
total lead

3
2
3
2
1

Preservative  
none HCl  
HCl  
HCl  
None  
HNO3

Signed: [Signature]

Notes:

Assembled field filtered except isotopes



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

Date: 5/28/14

Location: mw-6  
 Name of Sampler: JS  
 Weather: cloudy

Depth to Water: 11.85 Sample Depth: 11.89-11.91  
 Depth to Bottom: 22.15

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
 x Location ID

GW- 052814-JS-MW-6

Sample Method: low flow  
 Purge Start: 8:45  
 Sample Time: 9:10

1 Well Volume: \_\_\_\_\_  
 3 Well Volumes: \_\_\_\_\_

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

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

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

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
8:50	6.30	0.98	-5.0	2.35	16.84	-140	0.0	0.6			11.86	
8:53	6.65	1.00	-5.0	1.95	17.07	-152	0.0	0.6			11.86	
8:56	6.78	0.99	-5.0	1.92	17.23	-150	0.0	0.6			11.86	
8:59	6.88	0.99	-5.0	1.92	17.20	-158	0.0	0.6			11.89	
9:02	6.94	0.99	-5.0	1.99	17.19	-160	0.0	0.6			11.88	
9:05	7.01	0.98	-5.0	2.01	17.08	-161	0.0	0.6			11.89	
9:08	7.03	0.98	-5.0	2.05	17.12	-160	0.0	0.6			11.89	
9:10	collect samples											

Analysis:

Groundwater

TPH-GRO  
 TPH-DRO  
 BTEX+VOCs  
 PAHs  
 lead

3
2
3
2
1

Signed \_\_\_\_\_

Preservative

none Hcl  
 Hcl  
 Hcl  
 none  
 HNO3

Notes:

all samples field filtered except isotopes

Date: 5/28/14

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

Location: MW-7  
 Name of Sampler: B. - Parley  
 Weather: Cloudy  
 Depth to Water: 10.79 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-052814-BP-MW-7

Sample Method: low flow  
 Purge Start: 0945  
 Sample Time: 0915

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
0845	5.90	0.527	706	6.47	14.60	45	0.0	0.33	0.1		10.81	cloudy / black
0850	6.15	0.480	140.0	4.77	14.42	9	0.0	0.31	0.2			clear, slight black
0855	6.22	0.469	90.6	4.39	14.39	-7	0.0	0.30	0.5		10.80	
0900	6.50	0.461	119.0	4.13	14.42	-24	0.0	0.30	0.8			
0905	6.32	0.462	117.0	4.38	14.37	-32	0.0	0.30	1.0			
0910	6.35	0.461	112.0	4.03	14.29	-40	0.0	0.30	1.3		10.81	

Analysis: Groundwater

Preservative  
 none


Signed \_\_\_\_\_

Notes:

Not analyzed field filtered except isotopes

Date: 5/22/14

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

Location: MW-8  
Name of Sampler: Brian Pavley  
Weather: cloudy

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

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

Sample IDs (GW-mmddy-AA-XXX)

A Samplers Initials  
x Location ID

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

GW-052814-BP-MW-8

GW-052814-BP-  
FD-1

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

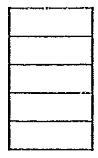
Sample Method: \_\_\_\_\_  
Purge Start: 1050  
Sample Time: 1120

1 Well Volume: \_\_\_\_\_  
3 Well Volumes: \_\_\_\_\_

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
1050	6.65	0.703	406.0	7.62	14.48	-2	0.0	0.45	0.1		10.43	yellow cloudy w/
1055	6.54	0.678	276.0	5.34	13.06	-14	0.0	0.43	0.2			bio flakes
1100	6.49	0.669	228.0	4.92	13.77	-19	0.0	0.43	0.5			
1105	6.48	0.664	185.0	4.82	13.70	-22	0.0	0.42	0.8		11.19	clear
1110	6.47	0.660	154.0	4.73	13.74	-25	0.0	0.42	1.2		11.29	
1115	6.49	0.658	138	4.68	13.80	-27	0.0	0.42	1.8		11.32	clear

Analysis:  
Groundwater

Preservative  
none



Signed \_\_\_\_\_

Notes:

~~All samples field filtered except isotopes~~  
hydrocortisone in  
purg water  
FD-1 field Dupz

Date: 5/27/14

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

Location: MW-9  
Name of Sampler: Bon Parly  
Weather: \_\_\_\_\_

Depth to Water: \_\_\_\_\_  
Depth to Bottom: \_\_\_\_\_

Sample Depth: ≈ 13.15

Sample IDs (GW-mmddyy-AA-XXX)

A Samplers Initials  
x Location ID

GW-052714-BP-MW-9

Sample Method: low flow  
Purge Start: 1011  
Sample Time: 1045

1 Well Volume: \_\_\_\_\_  
3 Well Volumes: \_\_\_\_\_

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

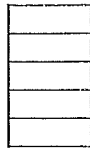
QA/QC  
MS/MSD \_\_\_\_\_  
Duplicate \_\_\_\_\_  
Blank \_\_\_\_\_

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

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
1015											12.95	clear, slight yellow
1020	6.17	0.542	2450	6.98	13.65	151	0.0	0.34	0.1			
1025	6.24	0.532	1570	5.36	13.65	122	0.0	0.34	0.25		13.20	
1030	6.28	0.543	1630	4.92	13.31	98	0.0	0.35	0.75			
1035	6.30	0.589	1490	4.60	13.5	83	0.0	0.34	1.2		13.25	
1040	6.31	0.533	1260	4.65	13.48	77	0.0	0.34	1.70			

Analysis: Groundwater

Preservative: none



Signed: Bon Parly

Notes: All samples field filtered except isotopes

Water Quality Meter S/N: 0532

Date: 5/27/14

Location: MW-10  
 Name of Sampler: JS  
 Weather: Sunny

Depth to Water: 10.36 Sample Depth: 10.95 ~ 11.05  
 Depth to Bottom: 20.31

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

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

Sample IDs (GW-mmddyy-AA-XXX)  
GW-052714-JS-MW-10

A Samplers Initials  
 x Location ID

Sample Method: low flow water column height(ft) X  
 Purge Start: 10:19 0.162(2" casing)  
 Sample Time: 10:50  
 1 Well Volume: \_\_\_\_\_  
 3 Well Volumes: \_\_\_\_\_

Time	pH (+/- 0.1 S.U.)	Cond (mS/cm) 3%	Turb. (NTU)	DO (mg/L) 10%	Temp (C°) 3%	ORP (mV) 10%	Salinity (%)	TDS (ppm)	Total Volume Removed (gallons)	Flow (ml/min) < 0.2 LPM	W/L (Feet BTOC)	Water Quality/Description
10:15	6.82	2.55	111.0	6.13	17.90	0	0.1	1.6			10.61	
10:28	6.92	2.52	36.1	5.01	17.76	0	0.1	1.6			10.69	
10:31	6.94	2.50	44.9	4.58	17.89	0	0.1	1.6			10.75	
10:34	6.96	2.50	34.9	4.47	17.52	0	0.1	1.6			10.80	
10:37	6.98	2.49	15.6	4.36	17.50	0	0.1	1.6			10.83	
10:40	7.01	2.47	20.9	4.37	17.50	0	0.1	1.6			10.88	
10:43	7.01	2.48	21.8	4.37	17.58	0	0.1	1.6			10.91	
10:46	7.02	2.50	16.9	4.38	17.56	0	0.1	1.6			10.94	
10:50	collected sample											

Analysis:  
 Groundwater  
 TPH-GRO  
 TPH-DRO  
 BTEX+VOCs  
 PAHs  
 Total lead


Preservative  
 none Hcl  
 Hcl  
 Hcl  
 none  
 HNO3

Signed JS

Notes:  
All samples were filtered except isotopes



# Chevron Northwest Region Analysis Request/Chain of Custody



Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_

Group # \_\_\_\_\_

Sample # \_\_\_\_\_

Instructions on reverse side correspond with circled numbers.

SCR #: \_\_\_\_\_

1 Client Information		4 Matrix		5 Analyses Requested							6 Remarks		
Facility # Tanner J. DeWitt Service Station (P66) 301233	WBS	Sediment		Total Number of Containers							Oxygenates		
Site Address 2500 Madison Leach King Way Seattle WA	Lead Consultant CRA	Ground		BTEX + MTBE 8021 8260 8260							8260 full scan		
Chevron PM		Surface		Oil							NWTPH-Dx with Silica Gel Cleanup		
Consultant/Office CRA Seattle - Tacoma		NPDES		Air							NWTPH-Dx without Silica Gel Cleanup		
Consultant Project Mgr. Mackelvin Davis		Potable		Water							Lead		
Consultant Phone # 509-253-507-66217		Composite		Naphth							Diss. Method		
Sampler JS/BP		Grab		8260							Total		
2 Sample Identification		3 Collected		4		5		6		7		8	
Sample Identification	Date	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time
GW-052714-BP-MW-1	9/27/10	1155	X	X	X	X	X	X	X	X	X	X	X
GW-052714-JS-MW-2	6/27/10	1300	X	X	X	X	X	X	X	X	X	X	X
GW-052714-JS-MW-3	5/27/10	1250	X	X	X	X	X	X	X	X	X	X	X
GW-052714-BP-MW-4	4/27/10	1320	X	X	X	X	X	X	X	X	X	X	X
GW-052814-JS-MW-5	6/28/10	1110	X	X	X	X	X	X	X	X	X	X	X
GW-052814-JS-MW-6	6/28/10	0910	X	X	X	X	X	X	X	X	X	X	X
GW-052814-BP-MW-8	5/28/10	1110	X	X	X	X	X	X	X	X	X	X	X
GW-052714-BP-MW-9	5/27/10	1045	X	X	X	X	X	X	X	X	X	X	X
GW-052714-JS-MW-10	5/27/10	1150	X	X	X	X	X	X	X	X	X	X	X
GW-052814-BP-TD1	5/28/10		X	X	X	X	X	X	X	X	X	X	X
GW-052814-BP-MW-7	5/28/10	0915	X	X	X	X	X	X	X	X	X	X	X

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

DATE	9/27/14	TIME	9:30
PROJECT NAME	061992 - 266 Tidelwater		
PROJECT #	061992	PHASE	TASK
Unit Control #			

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

**Auto Calibration**

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

AUTO 4 CALIBRATION					
Time	pH	Cond	Turb	DO	Temp
9:50	4.00	449	0.0	9.14	20.44

**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 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 \_\_\_\_\_ NAME \_\_\_\_\_ DATE \_\_\_\_\_

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

DATE 5/27/14  
 PROJECT NAME Tide water / Milk water sent  
 PROJECT # \_\_\_\_\_ PHASE \_\_\_\_\_ TASK \_\_\_\_\_  
 Unit Control # \_\_\_\_\_

TIME 0950  
 0950

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
0950	3.91	4.82	19.6	9.72	17.0
0955	3.97	4.49	1.7	9.57	17.02
1000	3.99	4.47	1.1	9.58	17.04

**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 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	pH7	pH9	pH10	Temp

**Midday and as needed calibration check record**

Time	Temperature	pH 4	pH 7	pH 9	pH 10	Initials

SIGNATURE \_\_\_\_\_ NAME \_\_\_\_\_ DATE \_\_\_\_\_



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

DATE	5/28/14	TIME	08:15
PROJECT NAME	061992		
PROJECT #	PHASE	TASK	
Unit Control #	PAGE ____ of ____		

**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
08:15	3.98	4.46	0.0	9.43	18.16
08:20	3.99	4.46	0.3	9.46	18.10

**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.

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	pH7	pH9	pH10	Temp

**Midday and as needed calibration check record**

Time	Temperature	pH 4	pH 7	pH 9	pH 10	Initials

SIGNATURE \_\_\_\_\_ NAME \_\_\_\_\_ DATE \_\_\_\_\_

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

DATE	5/28/14		
PROJECT NAME	Tribewater		
PROJECT #	061792	PHASE	TASK
Unit Control #			

TIME 8:20

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
8:25	3.96	14.59	0.0	8.98	18.35
8:27	4.00	14.50	0.0	9.12	17.82

**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. 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 \_\_\_\_\_

NAME \_\_\_\_\_

DATE \_\_\_\_\_

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

June 15, 2014

Project: 301233 Tidewater Seattle

Submittal Date: 05/29/2014

Group Number: 1477863

PO Number: 4068263

State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
GW-052714-BP-MW-1 Grab Groundwater	7480707
GW-052714-JS-MW-2 Grab Groundwater	7480708
GW-052714-JS-MW-3 Grab Groundwater	7480709
GW-052714-BP-MW-4 Grab Groundwater	7480710
GW-052714-BP-MW-4 MS Grab Groundwater	7480711
GW-052714-BP-MW-4 MSD Grab Groundwater	7480712
GW-052814-JS-MW-5 Grab Groundwater	7480713
GW-052814-JS-MW-6 Grab Groundwater	7480714
GW-052814-BP-MW-8 Grab Groundwater	7480715
GW-052714-BP-MW-9 Grab Groundwater	7480716
GW-052714-JS-MW-10 Grab Groundwater	7480717
GW-052814-BP-FD1 Grab Groundwater	7480718
GW-052814-BP-MW-7 Grab Groundwater	7480719
Trip Blank Water	7480720

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

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

Respectfully Submitted,



Natalie R. Luciano  
Senior Specialist

(717) 556-7258

Sample Description: **GW-052714-BP-MW-1 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480707**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 11:55 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK01

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	19	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

Sample Description: **GW-052714-BP-MW-1 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480707**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 11:55 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK01

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	5	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	4	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	2	0.5	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
<b>GC Volatiles ECY 97-602 NWT PH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWT PH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Petroleum ECY 97-602 NWT PH-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	0.10	0.085	1

### General Sample Comments

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

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

Sample Description: GW-052714-BP-MW-1 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480707  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014 11:55 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK01

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/04/2014 23:27	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/04/2014 23:27	Christopher G Torres	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 02:43	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14150A94A	05/31/2014 01:24	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150A94A	05/31/2014 01:24	Miranda P Tillinghast	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 15:39	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:25	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1



Sample Description: **GW-052714-JS-MW-2 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480708**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 12:00 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK02

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>	
10335	Acetone	67-64-1	10	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	2	1	1
10335	sec-Butylbenzene	135-98-8	3	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	9	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	23	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

Sample Description: **GW-052714-JS-MW-2 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480708**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 12:00 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK02

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	0.043	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.011	0.010	1
08357	Naphthalene	91-20-3	0.12	0.030	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

<b>GC Volatiles ECY 97-602 NWT PH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWT PH-Gx water C7-C12	n.a.	370	50	1

<b>GC Petroleum ECY 97-602 NWT PH-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.	300	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	0.42	0.085	1

Sample Description: GW-052714-JS-MW-2 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480708  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014 12:00 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK02

### General Sample Comments

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

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/04/2014 23:51	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/04/2014 23:51	Christopher G Torres	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 03:13	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14150A94A	05/31/2014 09:27	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150A94A	05/31/2014 09:27	Miranda P Tillinghast	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 16:00	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:27	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1

Sample Description: **GW-052714-JS-MW-3 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480709**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 12:50 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK03

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>	
10335	Acetone	67-64-1	N.D.	12	2
10335	Benzene	71-43-2	N.D.	1	2
10335	Bromobenzene	108-86-1	N.D.	2	2
10335	Bromochloromethane	74-97-5	N.D.	2	2
10335	Bromodichloromethane	75-27-4	N.D.	1	2
10335	Bromoform	75-25-2	N.D.	1	2
10335	Bromomethane	74-83-9	N.D.	1	2
10335	2-Butanone	78-93-3	N.D.	6	2
10335	n-Butylbenzene	104-51-8	14	2	2
10335	sec-Butylbenzene	135-98-8	14	2	2
10335	tert-Butylbenzene	98-06-6	N.D.	2	2
10335	Carbon Disulfide	75-15-0	N.D.	2	2
10335	Carbon Tetrachloride	56-23-5	N.D.	1	2
10335	Chlorobenzene	108-90-7	N.D.	1	2
10335	Chloroethane	75-00-3	N.D.	1	2
10335	Chloroform	67-66-3	N.D.	1	2
10335	Chloromethane	74-87-3	N.D.	1	2
10335	2-Chlorotoluene	95-49-8	N.D.	2	2
10335	4-Chlorotoluene	106-43-4	N.D.	2	2
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	4	2
10335	Dibromochloromethane	124-48-1	N.D.	1	2
10335	1,2-Dibromoethane	106-93-4	N.D.	1	2
10335	Dibromomethane	74-95-3	N.D.	1	2
10335	1,2-Dichlorobenzene	95-50-1	N.D.	2	2
10335	1,3-Dichlorobenzene	541-73-1	N.D.	2	2
10335	1,4-Dichlorobenzene	106-46-7	N.D.	2	2
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	2
10335	1,1-Dichloroethane	75-34-3	N.D.	1	2
10335	1,2-Dichloroethane	107-06-2	N.D.	1	2
10335	1,1-Dichloroethene	75-35-4	N.D.	1	2
10335	cis-1,2-Dichloroethene	156-59-2	4	1	2
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	2
10335	1,2-Dichloropropane	78-87-5	N.D.	1	2
10335	1,3-Dichloropropane	142-28-9	N.D.	1	2
10335	2,2-Dichloropropane	594-20-7	N.D.	1	2
10335	1,1-Dichloropropene	563-58-6	N.D.	2	2
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	2
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	2
10335	Ethylbenzene	100-41-4	180	1	2
10335	Hexachlorobutadiene	87-68-3	N.D.	4	2
10335	2-Hexanone	591-78-6	N.D.	6	2
10335	Isopropylbenzene	98-82-8	63	2	2
10335	p-Isopropyltoluene	99-87-6	5	2	2
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	2
10335	4-Methyl-2-pentanone	108-10-1	N.D.	6	2
10335	Methylene Chloride	75-09-2	N.D.	4	2
10335	Naphthalene	91-20-3	54	2	2
10335	n-Propylbenzene	103-65-1	170	2	2
10335	Styrene	100-42-5	N.D.	2	2
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	2

Sample Description: **GW-052714-JS-MW-3 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480709**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 12:50 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK03

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	2
10335	Tetrachloroethane	127-18-4	N.D.	1	2
10335	Toluene	108-88-3	N.D.	1	2
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	2	2
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	2	2
10335	1,1,1-Trichloroethane	71-55-6	2	1	2
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	2
10335	Trichloroethene	79-01-6	N.D.	1	2
10335	Trichlorofluoromethane	75-69-4	N.D.	1	2
10335	1,2,3-Trichloropropane	96-18-4	N.D.	2	2
10335	1,2,4-Trimethylbenzene	95-63-6	1,600	20	20
10335	1,3,5-Trimethylbenzene	108-67-8	65	2	2
10335	Vinyl Chloride	75-01-4	N.D.	1	2
10335	m+p-Xylene	179601-23-1	410	1	2
10335	o-Xylene	95-47-6	46	1	2
10335	Xylene (Total)	1330-20-7	460	1	2
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	8.6	0.010	1
08357	2-Methylnaphthalene	91-57-6	2.6	0.010	1
08357	Naphthalene	91-20-3	43	0.30	10
<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.	8,700	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.	210	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	0.65	0.085	1

### General Sample Comments

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

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

Sample Description: GW-052714-JS-MW-3 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480709  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014 12:50 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK03

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 05:20	Christopher G Torres	2
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 05:44	Christopher G Torres	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 05:20	Christopher G Torres	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	N141552AA	06/05/2014 05:44	Christopher G Torres	20
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 03:42	Brian K Graham	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 12:05	Brian K Graham	10
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14150A94A	05/31/2014 09:53	Miranda P Tillinghast	5
01146	GC VOA Water Prep	SW-846 5030B	1	14150A94A	05/31/2014 09:53	Miranda P Tillinghast	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 16:22	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:29	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1

Sample Description: **GW-052714-BP-MW-4 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480710**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 13:20 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK04

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

Sample Description: **GW-052714-BP-MW-4 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480710**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 13:20 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK04

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethane	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
<b>GC Volatiles ECY 97-602 NWT PH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWT PH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Petroleum ECY 97-602 NWT PH-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	N.D.	0.085	1

### General Sample Comments

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

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



Sample Description: GW-052714-BP-MW-4 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480710  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014 13:20 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 00:14	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 00:14	Christopher G Torres	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 04:12	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14150A94A	05/31/2014 03:05	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150A94A	05/31/2014 03:05	Miranda P Tillinghast	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 14:34	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:03	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1

Sample Description: **GW-052714-BP-MW-4 MS Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480711**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 13:20 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK04

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>	
10335	Acetone	67-64-1	140	6	1
10335	Benzene	71-43-2	22	0.5	1
10335	Bromobenzene	108-86-1	20	1	1
10335	Bromochloromethane	74-97-5	19	1	1
10335	Bromodichloromethane	75-27-4	20	0.5	1
10335	Bromoform	75-25-2	18	0.5	1
10335	Bromomethane	74-83-9	19	0.5	1
10335	2-Butanone	78-93-3	150	3	1
10335	n-Butylbenzene	104-51-8	23	1	1
10335	sec-Butylbenzene	135-98-8	23	1	1
10335	tert-Butylbenzene	98-06-6	22	1	1
10335	Carbon Disulfide	75-15-0	21	1	1
10335	Carbon Tetrachloride	56-23-5	23	0.5	1
10335	Chlorobenzene	108-90-7	22	0.5	1
10335	Chloroethane	75-00-3	19	0.5	1
10335	Chloroform	67-66-3	22	0.5	1
10335	Chloromethane	74-87-3	20	0.5	1
10335	2-Chlorotoluene	95-49-8	21	1	1
10335	4-Chlorotoluene	106-43-4	21	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	18	2	1
10335	Dibromochloromethane	124-48-1	20	0.5	1
10335	1,2-Dibromoethane	106-93-4	21	0.5	1
10335	Dibromomethane	74-95-3	20	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	21	1	1
10335	1,3-Dichlorobenzene	541-73-1	20	1	1
10335	1,4-Dichlorobenzene	106-46-7	21	1	1
10335	Dichlorodifluoromethane	75-71-8	21	0.5	1
10335	1,1-Dichloroethane	75-34-3	22	0.5	1
10335	1,2-Dichloroethane	107-06-2	22	0.5	1
10335	1,1-Dichloroethene	75-35-4	24	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	22	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	23	0.5	1
10335	1,2-Dichloropropane	78-87-5	21	0.5	1
10335	1,3-Dichloropropane	142-28-9	21	0.5	1
10335	2,2-Dichloropropane	594-20-7	22	0.5	1
10335	1,1-Dichloropropene	563-58-6	24	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	19	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	21	0.5	1
10335	Ethylbenzene	100-41-4	22	0.5	1
10335	Hexachlorobutadiene	87-68-3	19	2	1
10335	2-Hexanone	591-78-6	100	3	1
10335	Isopropylbenzene	98-82-8	23	1	1
10335	p-Isopropyltoluene	99-87-6	22	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	20	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	100	3	1
10335	Methylene Chloride	75-09-2	22	2	1
10335	Naphthalene	91-20-3	18	1	1
10335	n-Propylbenzene	103-65-1	24	1	1
10335	Styrene	100-42-5	22	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	21	0.5	1

Sample Description: GW-052714-BP-MW-4 MS Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480711  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014 13:20 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK04

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	20	0.5	1
10335	Tetrachloroethene	127-18-4	22	0.5	1
10335	Toluene	108-88-3	22	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	19	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	19	1	1
10335	1,1,1-Trichloroethane	71-55-6	22	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	20	0.5	1
10335	Trichloroethene	79-01-6	22	0.5	1
10335	Trichlorofluoromethane	75-69-4	23	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	20	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	22	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	22	1	1
10335	Vinyl Chloride	75-01-4	21	0.5	1
10335	m+p-Xylene	179601-23-1	44	0.5	1
10335	o-Xylene	95-47-6	21	0.5	1
10335	Xylene (Total)	1330-20-7	65	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.	1,200	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.	1,400	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

### General Sample Comments

State of Washington Lab Certification No. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 00:38	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 00:38	Christopher G Torres	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14150A94A	05/31/2014 03:31	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150A94A	05/31/2014 03:31	Miranda P Tillinghast	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 14:56	Christine E Dolman	1

Sample Description: GW-052714-BP-MW-4 MS Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480711  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014 13:20 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1

Sample Description: **GW-052714-BP-MW-4 MSD Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480712**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 13:20 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK04

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>	
10335	Acetone	67-64-1	140	6	1
10335	Benzene	71-43-2	22	0.5	1
10335	Bromobenzene	108-86-1	20	1	1
10335	Bromochloromethane	74-97-5	19	1	1
10335	Bromodichloromethane	75-27-4	20	0.5	1
10335	Bromoform	75-25-2	18	0.5	1
10335	Bromomethane	74-83-9	19	0.5	1
10335	2-Butanone	78-93-3	150	3	1
10335	n-Butylbenzene	104-51-8	23	1	1
10335	sec-Butylbenzene	135-98-8	23	1	1
10335	tert-Butylbenzene	98-06-6	22	1	1
10335	Carbon Disulfide	75-15-0	21	1	1
10335	Carbon Tetrachloride	56-23-5	23	0.5	1
10335	Chlorobenzene	108-90-7	21	0.5	1
10335	Chloroethane	75-00-3	19	0.5	1
10335	Chloroform	67-66-3	22	0.5	1
10335	Chloromethane	74-87-3	20	0.5	1
10335	2-Chlorotoluene	95-49-8	21	1	1
10335	4-Chlorotoluene	106-43-4	21	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	18	2	1
10335	Dibromochloromethane	124-48-1	20	0.5	1
10335	1,2-Dibromoethane	106-93-4	20	0.5	1
10335	Dibromomethane	74-95-3	20	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	20	1	1
10335	1,3-Dichlorobenzene	541-73-1	20	1	1
10335	1,4-Dichlorobenzene	106-46-7	21	1	1
10335	Dichlorodifluoromethane	75-71-8	21	0.5	1
10335	1,1-Dichloroethane	75-34-3	22	0.5	1
10335	1,2-Dichloroethane	107-06-2	22	0.5	1
10335	1,1-Dichloroethene	75-35-4	24	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	22	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	23	0.5	1
10335	1,2-Dichloropropane	78-87-5	21	0.5	1
10335	1,3-Dichloropropane	142-28-9	21	0.5	1
10335	2,2-Dichloropropane	594-20-7	23	0.5	1
10335	1,1-Dichloropropene	563-58-6	24	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	20	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	21	0.5	1
10335	Ethylbenzene	100-41-4	22	0.5	1
10335	Hexachlorobutadiene	87-68-3	20	2	1
10335	2-Hexanone	591-78-6	100	3	1
10335	Isopropylbenzene	98-82-8	23	1	1
10335	p-Isopropyltoluene	99-87-6	22	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	20	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	100	3	1
10335	Methylene Chloride	75-09-2	22	2	1
10335	Naphthalene	91-20-3	19	1	1
10335	n-Propylbenzene	103-65-1	23	1	1
10335	Styrene	100-42-5	22	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	20	0.5	1

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Sample Description: **GW-052714-BP-MW-4 MSD Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480712**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 13:20 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK04

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	19	0.5	1
10335	Tetrachloroethene	127-18-4	22	0.5	1
10335	Toluene	108-88-3	22	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	19	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	19	1	1
10335	1,1,1-Trichloroethane	71-55-6	22	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	20	0.5	1
10335	Trichloroethene	79-01-6	22	0.5	1
10335	Trichlorofluoromethane	75-69-4	22	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	20	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	22	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	22	1	1
10335	Vinyl Chloride	75-01-4	21	0.5	1
10335	m+p-Xylene	179601-23-1	44	0.5	1
10335	o-Xylene	95-47-6	21	0.5	1
10335	Xylene (Total)	1330-20-7	65	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.	1,200	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.	1,400	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

### General Sample Comments

State of Washington Lab Certification No. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 01:01	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 01:01	Christopher G Torres	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14150A94A	05/31/2014 03:56	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150A94A	05/31/2014 03:56	Miranda P Tillinghast	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 15:17	Christine E Dolman	1

Sample Description: GW-052714-BP-MW-4 MSD Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480712  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014 13:20 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1

Sample Description: **GW-052814-JS-MW-5 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480713**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/28/2014 11:10 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK05

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	4	1	1
10335	sec-Butylbenzene	135-98-8	3	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	8	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	14	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	9	1	1
10335	n-Propylbenzene	103-65-1	41	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1



Sample Description: **GW-052814-JS-MW-5 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480713**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/28/2014 11:10 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK05

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethane	127-18-4	0.5	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	16	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	6	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	22	0.5	1
10335	o-Xylene	95-47-6	4	0.5	1
10335	Xylene (Total)	1330-20-7	26	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	3.0	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.70	0.010	1
08357	Naphthalene	91-20-3	6.8	0.030	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.	570	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.	100	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	0.16	0.085	1

### General Sample Comments

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

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

Sample Description: GW-052814-JS-MW-5 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480713  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/28/2014 11:10 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK05

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 01:25	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 01:25	Christopher G Torres	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 04:42	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14153A94A	06/05/2014 12:52	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14153A94A	06/05/2014 12:52	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 16:44	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:30	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1

Sample Description: **GW-052814-JS-MW-6 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480714**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/28/2014 09:10 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK06

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	1	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

Sample Description: **GW-052814-JS-MW-6 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480714**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/28/2014 09:10 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK06

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	0.011	0.010	1
08357	Benzo(a)pyrene	50-32-8	0.014	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	0.020	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	0.013	0.010	1
08357	Chrysene	218-01-9	0.016	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	0.030	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.036	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
<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	30.5	0.085	1

### General Sample Comments

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

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

Sample Description: GW-052814-JS-MW-6 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480714  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/28/2014 09:10 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK06

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 01:48	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 01:48	Christopher G Torres	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 05:11	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14153A94A	06/05/2014 13:18	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14153A94A	06/05/2014 13:18	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 17:49	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:32	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1

Sample Description: **GW-052814-BP-MW-8 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480715**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/28/2014 11:10 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK08

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	6	1	1
10335	sec-Butylbenzene	135-98-8	4	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	2	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	50	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	13	1	1
10335	p-Isopropyltoluene	99-87-6	4	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	39	1	1
10335	n-Propylbenzene	103-65-1	24	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

Sample Description: **GW-052814-BP-MW-8 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480715**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/28/2014 11:10 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK08

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	1	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	0.7	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	740	10	10
10335	1,3,5-Trimethylbenzene	108-67-8	130	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	170	0.5	1
10335	o-Xylene	95-47-6	99	0.5	1
10335	Xylene (Total)	1330-20-7	270	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	11	0.10	10
08357	2-Methylnaphthalene	91-57-6	10	0.10	10
08357	Naphthalene	91-20-3	30	0.31	10
<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.	5,600	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.	860	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	3.9	0.085	1

### General Sample Comments

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

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

Sample Description: GW-052814-BP-MW-8 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480715  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/28/2014 11:10 by BP

Conestoga-Rovers & Associates

Submitted: 05/29/2014 09:20

Suite 190

Reported: 06/15/2014 15:17

20818 44th Ave W

Lynnwood WA 98036

MLK08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 03:46	Christopher G Torres	1
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 04:10	Christopher G Torres	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 03:46	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	N141552AA	06/05/2014 04:10	Christopher G Torres	10
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 05:41	Brian K Graham	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 13:31	Chad A Moline	10
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14153A94A	06/05/2014 22:42	Marie D Beamenderfer	5
01146	GC VOA Water Prep	SW-846 5030B	1	14153A94A	06/05/2014 22:42	Marie D Beamenderfer	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 18:10	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:34	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1



Sample Description: **GW-052714-BP-MW-9 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480716**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 10:45 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK09

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	0.8	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	140	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	0.9	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

Sample Description: **GW-052714-BP-MW-9 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480716**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 10:45 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK09

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethane	127-18-4	140	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	120	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	14	0.5	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
<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.	64	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.	50	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	0.092	0.085	1

### General Sample Comments

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

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

Sample Description: GW-052714-BP-MW-9 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480716  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014 10:45 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK09

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 02:12	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 02:12	Christopher G Torres	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 06:10	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14153A94A	06/05/2014 23:07	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14153A94A	06/05/2014 23:07	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 17:05	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:36	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1

Sample Description: **GW-052714-JS-MW-10 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480717**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 10:50 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK10

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	12	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	0.7	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	2	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

Sample Description: **GW-052714-JS-MW-10 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480717**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/27/2014 10:50 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK10

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	0.6	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	56	0.5	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	0.011	0.010	1
08357	Chrysene	218-01-9	0.012	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	0.022	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.015	0.010	1
08357	1-Methylnaphthalene	90-12-0	0.079	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.042	0.010	1
08357	Naphthalene	91-20-3	0.040	0.030	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.	74	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	0.11	0.085	1

### General Sample Comments

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

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

Sample Description: GW-052714-JS-MW-10 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480717  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014 10:50 by JS

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK10

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 02:36	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 02:36	Christopher G Torres	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 06:40	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14153A94A	06/05/2014 14:35	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14153A94A	06/05/2014 14:35	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 17:27	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:41	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1

Sample Description: GW-052814-BP-FD1 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480718  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/28/2014 by BP

Conestoga-Rovers & Associates

Submitted: 05/29/2014 09:20

Suite 190

Reported: 06/15/2014 15:17

20818 44th Ave W

Lynnwood WA 98036

MLKFD

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	11	1	1
10335	sec-Butylbenzene	135-98-8	7	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	2	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	67	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	19	1	1
10335	p-Isopropyltoluene	99-87-6	7	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	59	1	1
10335	n-Propylbenzene	103-65-1	41	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

Sample Description: **GW-052814-BP-FD1 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480718**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/28/2014 by BP

Conestoga-Rovers & Associates

Submitted: 05/29/2014 09:20

Suite 190

Reported: 06/15/2014 15:17

20818 44th Ave W

Lynnwood WA 98036

MLKFD

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	1	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	750	10	10
10335	1,3,5-Trimethylbenzene	108-67-8	190	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	210	0.5	1
10335	o-Xylene	95-47-6	120	0.5	1
10335	Xylene (Total)	1330-20-7	330	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	11	0.10	10
08357	2-Methylnaphthalene	91-57-6	9.2	0.10	10
08357	Naphthalene	91-20-3	29	0.30	10
<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.	5,900	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.	910	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	4.2	0.085	1

### General Sample Comments

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

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



Sample Description: GW-052814-BP-FD1 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480718  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/28/2014 by BP

Conestoga-Rovers & Associates

Submitted: 05/29/2014 09:20

Suite 190

Reported: 06/15/2014 15:17

20818 44th Ave W

Lynnwood WA 98036

MLKFD

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 04:33	Christopher G Torres	1
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 04:57	Christopher G Torres	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 04:33	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	N141552AA	06/05/2014 04:57	Christopher G Torres	10
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 07:09	Brian K Graham	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 14:01	Chad A Moline	10
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14153A94A	06/05/2014 23:33	Marie D Beamenderfer	5
01146	GC VOA Water Prep	SW-846 5030B	1	14153A94A	06/05/2014 23:33	Marie D Beamenderfer	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141530029A	06/06/2014 18:32	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141530029A	06/03/2014 11:00	William H Saadeh	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:42	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1

Sample Description: **GW-052814-BP-MW-7 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480719**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/28/2014 09:15 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK07

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	12	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

Sample Description: **GW-052814-BP-MW-7 Grab Groundwater**  
**MLK Tidewater Site**  
**2800 Martin Luther King Jr Way - Seattle, WA**

LL Sample # **WW 7480719**  
 LL Group # **1477863**  
 Account # **13534**

Project Name: **301233 Tidewater Seattle**

Collected: 05/28/2014 09:15 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK07

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethane	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	3	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	3	0.5	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>			<b>ug/l</b>	<b>ug/l</b>	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	0.012	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
<b>GC Volatiles ECY 97-602 NWT PH-Gx</b>			<b>ug/l</b>	<b>ug/l</b>	
08273	NWT PH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Petroleum ECY 97-602 NWT PH-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	9.7	0.085	1

### General Sample Comments

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

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

Sample Description: GW-052814-BP-MW-7 Grab Groundwater  
MLK Tidewater Site  
2800 Martin Luther King Jr Way - Seattle, WA

LL Sample # WW 7480719  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/28/2014 09:15 by BP

Conestoga-Rovers & Associates

Suite 190

Submitted: 05/29/2014 09:20

20818 44th Ave W

Reported: 06/15/2014 15:17

Lynnwood WA 98036

MLK07

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/05/2014 03:00	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/05/2014 03:00	Christopher G Torres	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14151WAG026	06/11/2014 07:39	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14151WAG026	06/02/2014 07:40	Roman Kuropatkin	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14153A94A	06/05/2014 15:52	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14153A94A	06/05/2014 15:52	Marie D Beamenderfer	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	141540011A	06/06/2014 00:27	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	141540011A	06/04/2014 05:50	Roman Kuropatkin	1
06035	Lead	SW-846 6020	1	141536050003A	06/03/2014 20:44	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141536050003	06/03/2014 08:58	Micaela L Dishong	1

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

LL Sample # WW 7480720  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014

Conestoga-Rovers & Associates

Submitted: 05/29/2014 09:20

Suite 190

Reported: 06/15/2014 15:17

20818 44th Ave W

Lynnwood WA 98036

MLKTB

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>	
10335	Acetone	67-64-1	N.D.	6	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1

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

LL Sample # WW 7480720  
LL Group # 1477863  
Account # 13534

Project Name: 301233 Tidewater Seattle

Collected: 05/27/2014

Conestoga-Rovers & Associates

Submitted: 05/29/2014 09:20

Suite 190

Reported: 06/15/2014 15:17

20818 44th Ave W

Lynnwood WA 98036

MLKTB

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>	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
<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. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	8260 Solvent Compound - Water	SW-846 8260B	1	N141552AA	06/04/2014 23:04	Christopher G Torres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N141552AA	06/04/2014 23:04	Christopher G Torres	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14153A94A	06/05/2014 12:27	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14153A94A	06/05/2014 12:27	Marie D Beamenderfer	1

## Quality Control Summary

Client Name: Conestoga-Rovers & Associates  
Reported: 06/15/14 at 03:17 PM

Group Number: 1477863

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: N141552AA	Sample number(s): 7480707-7480720							
Acetone	N.D.	6.	ug/l	92		43-149		
Benzene	N.D.	0.5	ug/l	106		78-120		
Bromobenzene	N.D.	1.	ug/l	97		80-120		
Bromochloromethane	N.D.	1.	ug/l	96		80-121		
Bromodichloromethane	N.D.	0.5	ug/l	98		73-120		
Bromoform	N.D.	0.5	ug/l	92		61-120		
Bromomethane	N.D.	0.5	ug/l	91		58-120		
2-Butanone	N.D.	3.	ug/l	101		54-133		
n-Butylbenzene	N.D.	1.	ug/l	103		68-120		
sec-Butylbenzene	N.D.	1.	ug/l	107		80-120		
tert-Butylbenzene	N.D.	1.	ug/l	110		73-120		
Carbon Disulfide	N.D.	1.	ug/l	93		58-126		
Carbon Tetrachloride	N.D.	0.5	ug/l	107		74-130		
Chlorobenzene	N.D.	0.5	ug/l	103		80-120		
Chloroethane	N.D.	0.5	ug/l	86		56-120		
Chloroform	N.D.	0.5	ug/l	106		80-122		
Chloromethane	N.D.	0.5	ug/l	93		63-120		
2-Chlorotoluene	N.D.	1.	ug/l	99		80-120		
4-Chlorotoluene	N.D.	1.	ug/l	101		80-120		
1,2-Dibromo-3-chloropropane	N.D.	2.	ug/l	90		56-120		
Dibromochloromethane	N.D.	0.5	ug/l	99		72-120		
1,2-Dibromoethane	N.D.	0.5	ug/l	103		76-120		
Dibromomethane	N.D.	0.5	ug/l	102		80-120		
1,2-Dichlorobenzene	N.D.	1.	ug/l	98		80-120		
1,3-Dichlorobenzene	N.D.	1.	ug/l	99		80-120		
1,4-Dichlorobenzene	N.D.	1.	ug/l	99		80-120		
Dichlorodifluoromethane	N.D.	0.5	ug/l	86		48-132		
1,1-Dichloroethane	N.D.	0.5	ug/l	104		80-120		
1,2-Dichloroethane	N.D.	0.5	ug/l	109		65-135		
1,1-Dichloroethene	N.D.	0.5	ug/l	107		76-124		
cis-1,2-Dichloroethene	N.D.	0.5	ug/l	105		80-120		
trans-1,2-Dichloroethene	N.D.	0.5	ug/l	108		80-120		
1,2-Dichloropropane	N.D.	0.5	ug/l	103		80-120		
1,3-Dichloropropane	N.D.	0.5	ug/l	103		80-120		
2,2-Dichloropropane	N.D.	0.5	ug/l	96		67-124		
1,1-Dichloropropene	N.D.	1.	ug/l	108		80-120		
cis-1,3-Dichloropropene	N.D.	0.5	ug/l	98		80-120		
trans-1,3-Dichloropropene	N.D.	0.5	ug/l	102		76-120		
Ethylbenzene	N.D.	0.5	ug/l	105		79-120		
Hexachlorobutadiene	N.D.	2.	ug/l	87		51-125		
2-Hexanone	N.D.	3.	ug/l	103		44-126		
Isopropylbenzene	N.D.	1.	ug/l	106		77-120		
p-Isopropyltoluene	N.D.	1.	ug/l	103		80-120		

\*- Outside of specification

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

## Quality Control Summary

Client Name: Conestoga-Rovers & Associates  
Reported: 06/15/14 at 03:17 PM

Group Number: 1477863

<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>
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	98		75-120		
4-Methyl-2-pentanone	N.D.	3.	ug/l	102		51-124		
Methylene Chloride	N.D.	2.	ug/l	109		80-120		
Naphthalene	N.D.	1.	ug/l	91		47-126		
n-Propylbenzene	N.D.	1.	ug/l	110		80-120		
Styrene	N.D.	1.	ug/l	103		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.5	ug/l	100		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.5	ug/l	100		70-120		
Tetrachloroethene	N.D.	0.5	ug/l	107		80-120		
Toluene	N.D.	0.5	ug/l	105		80-120		
1,2,3-Trichlorobenzene	N.D.	1.	ug/l	93		58-126		
1,2,4-Trichlorobenzene	N.D.	1.	ug/l	90		65-120		
1,1,1-Trichloroethane	N.D.	0.5	ug/l	101		66-126		
1,1,2-Trichloroethane	N.D.	0.5	ug/l	102		80-120		
Trichloroethene	N.D.	0.5	ug/l	104		80-120		
Trichlorofluoromethane	N.D.	0.5	ug/l	94		65-130		
1,2,3-Trichloropropane	N.D.	1.	ug/l	101		76-120		
1,2,4-Trimethylbenzene	N.D.	1.	ug/l	106		74-120		
1,3,5-Trimethylbenzene	N.D.	1.	ug/l	106		74-120		
Vinyl Chloride	N.D.	0.5	ug/l	94		63-120		
m+p-Xylene	N.D.	0.5	ug/l	104		80-120		
o-Xylene	N.D.	0.5	ug/l	101		80-120		
Xylene (Total)	N.D.	0.5	ug/l	103		80-120		
Batch number: 14151WAG026      Sample number(s): 7480707-7480710,7480713-7480719								
Benzo(a)anthracene	N.D.	0.010	ug/l	105	105	79-122	0	30
Benzo(a)pyrene	N.D.	0.010	ug/l	106	103	80-121	3	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	109	108	79-136	1	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	107	101	81-131	6	30
Chrysene	N.D.	0.010	ug/l	103	102	84-118	1	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	99	97	66-133	2	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	98	96	68-132	2	30
1-Methylnaphthalene	N.D.	0.010	ug/l	91	91	86-130	0	30
2-Methylnaphthalene	N.D.	0.010	ug/l	88	87	81-131	1	30
Naphthalene	N.D.	0.030	ug/l	94	93	82-122	1	30
Batch number: 14150A94A      Sample number(s): 7480707-7480712								
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	91		75-135		
Batch number: 14153A94A      Sample number(s): 7480713-7480720								
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	104		75-135		
Batch number: 141530029A      Sample number(s): 7480707-7480718								
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	95		32-117		
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 141540011A      Sample number(s): 7480719								
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	84	87	32-117	4	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 141536050003A      Sample number(s): 7480707-7480710,7480713-7480719								
Lead	N.D.	0.085	ug/l	101		90-110		

\*- 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: 06/15/14 at 03:17 PM

Group Number: 1477863

### 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>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: N141552AA	Sample number(s): 7480707-7480720 UNSPK: 7480710							
Acetone	92	93	35-144	1	30			
Benzene	111	111	72-134	0	30			
Bromobenzene	100	100	82-115	1	30			
Bromochloromethane	95	94	76-134	1	30			
Bromodichloromethane	102	100	73-125	1	30			
Bromoform	92	91	48-118	2	30			
Bromomethane	96	95	47-129	1	30			
2-Butanone	101	99	44-135	1	30			
n-Butylbenzene	113	113	74-134	0	30			
sec-Butylbenzene	117	117	74-137	0	30			
tert-Butylbenzene	111	110	81-121	1	30			
Carbon Disulfide	106	107	53-149	1	30			
Carbon Tetrachloride	117	116	75-148	1	30			
Chlorobenzene	108	107	87-124	0	30			
Chloroethane	94	93	55-130	1	30			
Chloroform	111	109	81-134	2	30			
Chloromethane	101	101	61-125	1	30			
2-Chlorotoluene	104	104	82-118	0	30			
4-Chlorotoluene	105	105	84-122	0	30			
1,2-Dibromo-3-chloropropane	90	88	50-123	2	30			
Dibromochloromethane	99	99	74-116	0	30			
1,2-Dibromoethane	103	102	77-116	1	30			
Dibromomethane	102	101	83-119	1	30			
1,2-Dichlorobenzene	103	101	84-119	2	30			
1,3-Dichlorobenzene	102	102	86-121	0	30			
1,4-Dichlorobenzene	104	103	85-121	1	30			
Dichlorodifluoromethane	107	106	58-156	0	30			
1,1-Dichloroethane	111	111	84-129	0	30			
1,2-Dichloroethane	109	112	63-142	3	30			
1,1-Dichloroethene	121	121	79-137	0	30			
cis-1,2-Dichloroethene	111	111	80-141	0	30			
trans-1,2-Dichloroethene	115	115	86-131	0	30			
1,2-Dichloropropane	106	106	83-124	0	30			
1,3-Dichloropropane	104	104	81-120	1	30			
2,2-Dichloropropane	111	113	69-135	1	30			
1,1-Dichloropropene	119	121	86-137	2	30			
cis-1,3-Dichloropropene	97	98	70-116	1	30			
trans-1,3-Dichloropropene	104	104	74-119	1	30			
Ethylbenzene	110	110	71-134	0	30			
Hexachlorobutadiene	97	98	56-134	1	30			
2-Hexanone	102	102	38-131	0	30			
Isopropylbenzene	113	114	75-128	0	30			
p-Isopropyltoluene	111	111	76-123	0	30			
Methyl Tertiary Butyl Ether	99	101	72-126	2	30			
4-Methyl-2-pentanone	101	100	45-128	1	30			
Methylene Chloride	112	111	78-133	1	30			
Naphthalene	91	93	52-125	2	30			
n-Propylbenzene	118	117	74-134	0	30			
Styrene	108	108	78-125	1	30			
1,1,1,2-Tetrachloroethane	104	102	80-123	2	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: 06/15/14 at 03:17 PM

Group Number: 1477863

### Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1,2,2-Tetrachloroethane	98	97	72-128	1	30				
Tetrachloroethene	111	111	80-128	0	30				
Toluene	111	111	80-125	1	30				
1,2,3-Trichlorobenzene	94	95	62-133	1	30				
1,2,4-Trichlorobenzene	94	95	56-137	0	30				
1,1,1-Trichloroethane	110	109	69-140	1	30				
1,1,2-Trichloroethane	102	102	71-141	0	30				
Trichloroethene	111	111	88-133	1	30				
Trichlorofluoromethane	114	111	63-163	3	30				
1,2,3-Trichloropropane	101	100	76-118	1	30				
1,2,4-Trimethylbenzene	111	111	72-130	1	30				
1,3,5-Trimethylbenzene	112	111	65-132	1	30				
Vinyl Chloride	107	106	66-133	1	30				
m+p-Xylene	110	109	79-125	1	30				
o-Xylene	106	105	79-125	1	30				
Xylene (Total)	109	108	79-125	1	30				

Batch number: 14150A94A Sample number(s): 7480707-7480712 UNSPK: 7480710  
NWTPH-Gx water C7-C12 110 112 75-135 1 30

Batch number: 14153A94A Sample number(s): 7480713-7480720 UNSPK: P483732  
NWTPH-Gx water C7-C12 112 99 75-135 12 30

Batch number: 141530029A Sample number(s): 7480707-7480718 UNSPK: 7480710  
DRO C12-C24 w/Si Gel 94 89 60-120 7 20

Batch number: 141536050003A Sample number(s): 7480707-7480710,7480713-7480719 UNSPK: 7480710 BKG: 7480710  
Lead 104 104 89-120 0 20 N.D. N.D. 0 (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: 8260 Ext. Water Master w/GRO

Batch number: N141552AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7480707	102	102	101	94
7480708	100	103	102	100
7480709	98	100	101	99
7480710	102	104	100	93
7480711	101	102	104	102
7480712	99	102	103	102
7480713	99	101	102	99
7480714	101	102	101	96
7480715	99	100	100	99
7480716	102	102	100	94
7480717	102	103	100	95

\*- 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: 06/15/14 at 03:17 PM

Group Number: 1477863

### Surrogate Quality Control

7480718	99	102	100	99
7480719	102	103	100	94
7480720	101	104	99	95
Blank	102	104	100	93
LCS	100	101	103	103
MS	101	102	104	102
MSD	99	102	103	102

Limits: 80-116      77-113      80-113      78-113

Analysis Name: PAHs in waters by SIM  
Batch number: 14151WAG026

Fluoranthene-d10      Benzo(a)pyrene-d12      1-Methylnaphthalene-d10

7480707	107	109	91
7480708	92	17*	95
7480709	87	79	91
7480710	112	118	91
7480713	102	117	90
7480714	95	101	92
7480715	92	110	108
7480716	97	89	93
7480717	93	114	90
7480718	91	115	111
7480719	112	116	91
Blank	104	116	89
LCS	106	123	94
LCSD	103	118	92

Limits: 59-128      62-141      70-134

Analysis Name: NWTPH-Gx water C7-C12  
Batch number: 14150A94A

Trifluorotoluene-F

7480707	88
7480708	86
7480709	96
7480710	83
7480711	94
7480712	93
Blank	84
LCS	88
MS	94
MSD	93

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 14153A94A

Trifluorotoluene-F

7480713	94
7480714	85
7480715	83

\*- 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: 06/15/14 at 03:17 PM

Group Number: 1477863

### Surrogate Quality Control

7480716 94  
7480717 95  
7480718 86  
7480719 95  
7480720 83  
Blank 85  
LCS 92  
MS 93  
MSD 91

---

Limits: 63-135

Analysis Name: NWTPH-Dx water w/Si Gel  
Batch number: 141530029A  
Orthoterphenyl

---

7480707 109  
7480708 109  
7480709 102  
7480710 106  
7480711 119  
7480712 113  
7480713 109  
7480714 108  
7480715 109  
7480716 103  
7480717 109  
7480718 110  
Blank 110  
LCS 120  
MS 119  
MSD 113

---

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel  
Batch number: 141540011A  
Orthoterphenyl

---

7480719 116  
Blank 115  
LCS 113  
LCSD 114

---

Limits: 50-150

\*- Outside of specification

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

# Chevron Northwest Region Analysis Request/Chain of Custody



**Lancaster Laboratories Environmental**

Acct. # 13534

For Eurofins Lancaster Laboratories Environmental use only

Group # 1477863 Sample # 7480707-20

Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks																																					
Facility # <u>WBS</u> <u>Former Tidelwater Service Station (P66) 201233</u>		Site Address <u>2800 Martin Luther King Way Seattle WA</u>		Chevron PM <u>Lead Consultant</u> <u>CRA</u>		Consultant/Office <u>CRA Seattle - Tacoma</u>		Consultant Project Mgr. <u>Mathew Davis</u>		Consultant Phone # <u>507-253-507-656217</u>		Sampler <u>JS/BP</u>		Soil <input type="checkbox"/>		Potable <input type="checkbox"/>		Ground <input checked="" type="checkbox"/>		Surface <input type="checkbox"/>		Oil <input type="checkbox"/>		Air <input type="checkbox"/>		Total Number of Containers		BTEX + MTBE 8021 <input type="checkbox"/>		8260 <input type="checkbox"/>		Naphth <input type="checkbox"/>		8260 full scan		Oxygenates		NWTPH-Gx		NWTPH-Dx with Silica Gel Cleanup <input checked="" type="checkbox"/>		NWTPH-Dx without Silica Gel Cleanup <input type="checkbox"/>		WA VPH <input type="checkbox"/>		WA EPH <input type="checkbox"/>		Lead Total <input checked="" type="checkbox"/>		Diss. <input type="checkbox"/>		Method <u>6020</u>		SCR #: _____	
2 Sample Identification			3 Collected		Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead Total	Diss.	Method	Remarks																															
Date	Time																																																						
<u>GW-052714-BP-MW-1</u>	<u>5/27/14</u>	<u>1155</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>11</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	→ MS/MSD																															
<u>GW-052714-JS-MW-2</u>	<u>5/27/14</u>	<u>1200</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>11</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
<u>GW-052714-JS-MW-3</u>	<u>5/27/14</u>	<u>1250</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>11</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
<u>GW-052714-BP-MW-4</u>	<u>5/27/14</u>	<u>1320</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>27</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
<u>GW-052814-JS-MW-5</u>	<u>5/28/14</u>	<u>1110</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>11</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
<u>GW-052814-JS-MW-6</u>	<u>5/28/14</u>	<u>0910</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>11</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
<u>GW-052814-BP-MW-8</u>	<u>5/28/14</u>	<u>1110</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>11</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
<u>GW-052714-BP-MW-9</u>	<u>5/27/14</u>	<u>1045</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>11</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
<u>GW-052714-JS-MW-10</u>	<u>5/27/14</u>	<u>1050</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>11</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
<u>GW-052814-BP-FD1</u>	<u>5/28/14</u>		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>11</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>[Signature]</u>				Date <u>5/28/14</u>		Time <u>1500</u>		Received by <u>[Signature]</u>				Date		Time																																					
<input checked="" type="radio"/> Standard    5 day    4 day <input type="radio"/> 72 hour    48 hour    24 hour																																																							
8 Data Package (circle if required)				Relinquished by Commercial Carrier:				Date		Time		Received by <u>[Signature]</u>				Date		Time																																					
<input type="radio"/> Type I - Full <input type="radio"/> Type VI (Raw Data)				<input type="radio"/> UPS <input checked="" type="checkbox"/> <input type="checkbox"/> FedEx <input type="checkbox"/> Other												<u>5/29/14</u>		<u>0920</u>																																					
				Temperature Upon Receipt <u>10.5.2</u> °C								Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																																											

# Chevron Northwest Region Analysis Request/Chain of Custody



**Lancaster Laboratories Environmental**

Acct. # 13534

For Eurofins Lancaster Laboratories Environmental use only

Group # 1477903

Sample # 1480707-20

Instructions on reverse side correspond with circled numbers.

1 Client Information			4 Matrix				5 Analyses Requested																			
Facility # <u>WBS</u>			3 Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method	Hold			
Site Address <u>2510 Mountain Road Long View, WA</u>																										
Chevron PM <u>CRA</u>																										
Lead Consultant <u>CRA</u>																										
Consultant/Office <u>CRA Seattle - Tacoma</u>																										
Consultant Project Mgr. <u>Markus Jones</u>																										
Consultant Phone # <u>509-253-5071-186217</u>																										
Sampler <u>JS/BP</u>																										
2 Sample Identification		Collected		Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method	Hold	
		Date	Time																							
<u>GW-052714-BP-MW-1</u>		<u>5/7/14</u>	<u>1154</u>	X			X		11	X				X	X											
<u>GW-052714-BP-MW-2</u>		<u>5/7/14</u>	<u>1300</u>	X			X		11	X				X	X											
<u>GW-052714-BP-MW-3</u>		<u>5/7/14</u>	<u>1250</u>	X			X		11	X				X	X											
<u>GW-052714-BP-MW-4</u>		<u>5/7/14</u>	<u>1330</u>	X			X		23	X				X	X											
<u>GW-052814-BP-MW-5</u>		<u>5/7/14</u>	<u>110</u>	X			X		11	X				X	X											
<u>GW-052814-BP-MW-6</u>		<u>5/7/14</u>	<u>910</u>	X			X		11	X				X	X											
<u>GW-052814-BP-MW-7</u>		<u>5/7/14</u>	<u>1115</u>	X			X		11	X				X	X											
<u>GW-052714-BP-MW-10</u>		<u>5/7/14</u>	<u>1100</u>	X			X		11	X				X	X											
<u>GW-052814-BP-TD1</u>		<u>5/8/14</u>	<u>0915</u>	X			X		11	X				X	X											
<u>GW-052814-BP-MW-7</u>		<u>5/8/14</u>	<u>0915</u>	X			X		11	X				X	X											

SCR #: \_\_\_\_\_

- Results in Dry Weight
- J value reporting needed
- Must meet lowest detection limits possible for 8260 compounds
- 8021 MTBE Confirmation
- Confirm MTBE + Naphthalene
- Confirm highest hit by 8260
- Confirm all hits by 8260
- Run \_\_\_\_\_ oxy's on highest hit
- Run \_\_\_\_\_ oxy's on all hits

6 Remarks

Amended COC

7 Turnaround Time Requested (TAT) (please circle)

Standard	5 day	4 day
72 hour	48 hour	24 hour

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FL\_05 (default)

Other: \_\_\_\_\_

Relinquished by <u>[Signature]</u>	Date <u>5/21/14</u>	Time <u>1100</u>	Received by <u>[Signature]</u>	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS <input checked="" type="checkbox"/> FedEx _____ Other _____			Received by <u>[Signature]</u>	Date <u>5/21/14</u>	Time <u>0920</u>
Temperature Upon Receipt <u>10-5, 2</u> °C				Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

# 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>m3</b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter

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

> greater than

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

**ppb** parts per billion

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

*Data Qualifiers:*

**C** – result confirmed by reanalysis.

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

*U.S. EPA CLP Data Qualifiers:*

**Organic Qualifiers**

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

**Inorganic Qualifiers**

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

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

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

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

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

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ATTACHMENT C

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.