



June 11, 2013

Ms. Marlea Harmon
Chevron Environmental Management Company
6101 Bollinger Canyon Rd.
San Ramon, California 94583-5186

Subject: 2013 Second Quarter Groundwater Monitoring Report
Former Texaco Service Station and Bulk Terminal No. 307757
6900 NE Highway 99
Vancouver, Washington

Dear Ms. Harmon:

SAIC Energy, Environment & Infrastructure, LLC (SAIC), on behalf of Chevron Environmental Management (CEMC), prepared this letter summarizing the groundwater monitoring activities performed at Former Texaco Service Station and Bulk Terminal No. 307757 in Vancouver, Washington (Figure 1).

Groundwater monitoring and sampling was not completed at the site during the 2013 First Quarter event due to a change in sampling personnel from Gettler-Ryan Inc. to SAIC.

SAIC conducted a groundwater monitoring event on May 8 and 9, 2013. Depth-to-groundwater measurements were recorded and groundwater samples were collected from twelve groundwater monitoring wells at the site. The monitoring wells were also checked for the presence of separate-phase hydrocarbons (SPH). SPH was not observed in any of the wells gauged.

Groundwater samples were submitted to Eurofins Lancaster Laboratories, Inc. in Lancaster, Pennsylvania and analyzed for:

- Gasoline-range hydrocarbons (TPH-G) using Northwest Method NWTPH-Gx;
- Diesel- and heavy oil-range hydrocarbons using Northwest Method NWTPH-Dx;
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), naphthalene, and methyl tertiary butyl ether (MTBE) by United States Environmental Protection Agency (USEPA) Method 8260B; and

Additionally, a laboratory-supplied trip blank (QA) was submitted to the laboratory and analyzed for TPH-G, BTEX, naphthalene, and MTBE to provide quality assurance.

Laboratory results indicate that concentrations of petroleum hydrocarbons are consistent with historical data. Analytical data are presented in Tables 1 and 2. Field data sheets are included as Attachment A and laboratory analysis report are included as Attachment B.

Groundwater flow during this quarter was toward the west-southwest at a gradient of 0.004 to 0.03 feet per foot. Groundwater elevations during this event are consistent with historical seasonal fluctuation. Groundwater elevations are shown on Figure 1.

SAIC will continue to perform groundwater monitoring and sampling on a quarterly basis.

Please contact Alex Shook, the SAIC project manager, at (503) 220-1646 or shooka@saic.com if you have any questions or comments about the information provided herein.

Sincerely,

SAIC Energy, Environment & Infrastructure, LLC



Alex Shook
Project Manager

Enclosures:

Figure 1 – Potentiometric Map

Table 1 – Groundwater Monitoring Data and Analytical Results – TPH and Total Lead

Table 2 – Groundwater Analytical Results – BTEX, MTBE, and Naphthalene

Attachment A – Groundwater Monitoring and Sampling Field Data

Attachment B – Laboratory Analysis Report

cc: Mr. Steve Teel, Washington Department of Ecology
PO Box 47775, Lacey, WA 98504-7775
Mr. William Joyce, Joyce Ziker Parkinson, PLLC
1601 Fifth Avenue, Suite 2040, Seattle, WA 98101
Mr. Charles Grinstein, Grinstein Partners LLC
100 West Harrison Plaza, North Tower, Suite 550, Seattle, WA 98199
Mr. Todd Horenstein, Vancouver School District #37
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Project File

REPORT LIMITATIONS

This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state or federal regulatory agency that the technical document was sent to by SAIC. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges that they do so at their own risk, and SAIC shall have no responsibility or liability for the consequences thereof.

Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from CEMC and others. SAIC has not made, nor has it been asked to make, any independent investigation concerning the accuracy, reliability, or completeness of such information beyond that described in this technical document.

Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.

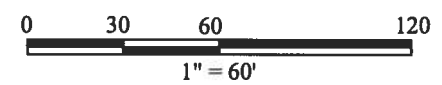
Opinions and recommendations presented in this technical document apply only to site conditions and features as they existed at the time of SAIC's site visits or site work and cannot be applied to conditions and features of which SAIC is unaware and has not had the opportunity to evaluate.

All sources of information on which SAIC has relied in making its conclusions (including direct field observations) are identified by reference in this technical document or in appendices attached to this technical document. Any information not listed by reference or in appendices has not been evaluated or relied upon by SAIC in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.



LEGEND:

- Monitoring Well Location
- Former Buildings
- Property Boundary
- Groundwater Elevation (Feet)
- Approximate Groundwater Elevation Contour at a 1.00 Foot Interval (Dashed Where Inferred)
- Approximate Groundwater Flow Direction at a Gradient of 0.004 to 0.01 ft/ft



SAIC

File: 307757 2013 RSRT Figures.dwg

Potentiometric Map
May 8, 2013

Former Texaco Service Station and Bulk Terminal
No. 307757
6900 NE Highway 99
Vancouver, Washington

Date: 6/11/2013 Drawn By: DBH

FIGURE

1

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS - TPH AND TOTAL LEAD
FORMER TEXACO SERVICE STATION AND BULK TERMINAL NO. 307757
6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date		TOC (ft.)	DTW (ft.)	GWE (ft.)	TPH-GRO	TPH-DRO	TPH-HRO	T. Lead
MW-1								
11/04/03		196.79	23.92	172.87	410	2,600	<250	--
06/03/04		196.79	23.19	173.60	1,300	3,800	<250	--
10/06/04		196.79	23.87	172.92	1,000	91	<250	--
05/2005		196.79	--	--	1,200	280	<250	--
01/25/07		196.79	21.00	175.79	18,000	1,000	810	0.47
01/25/07	(D)	196.79	21.00	175.79	19,000	840	760	0.48
01/13/09		196.79	22.46	174.33	750	140	120	13.7
01/13/09	(D)	196.79	22.46	174.33	660	100	110	12.2
06/09/09		196.79	22.76	174.03	1,200	<300	<700 ¹	31.0
08/25/09		196.79	INACCESSIBLE		--	--	--	--
12/07/09	LFP	196.79	24.14	172.65	810	500	<700 ¹	102
03/25/10	LFP	196.79	23.43	173.36	350	<300 ¹	<700 ¹	45.1
06/14/10	LFP	196.79	23.18	173.61	560	<150 ¹	<350 ¹	6.8
09/23/10	LFP	196.79	23.75	173.04	1,000	550	2,300	48.1
12/14/10	LFP	196.79	23.68	173.11	410	320	1,700	14.6
03/24/11	LFP	196.79	21.78	175.01	4,600	940	1,300	65.5
06/28/11	LFP	196.79	21.30	175.49	6,600	81	<71	2.8
09/28/11	LFP	196.79	22.11	174.68	2,700	<300	<700	2.8
12/05/11	LFP	196.79	22.70	174.09	310	65	<70	47.6
03/06/12	LFP	196.79	22.60	174.19	740	61	170	--
06/06/12	LFP	196.79	21.80	174.99	1,700	860	620	--
09/05/12	LFP	196.79	22.50	174.29	1,800	850	1,600	--
12/04/12	LFP	196.79	22.76	174.03	3,200	86	<67	--
05/08/13	LFP	196.79	22.34	174.45	420	<33	<78	--
MW-2								
11/04/03		197.47	24.91	172.56	280	160	<250	--
06/03/04		197.47	23.89	173.58	1,200	250	<250	--
10/06/04		197.47	24.67	172.80	460	107	<250	--
05/2005		197.47	--	--	620	180	<250	--
01/25/07		197.47	22.05	175.42	11,000	970	280	1.0
01/13/09		197.47	INACCESSIBLE		--	--	--	--
06/09/09		197.47	23.81	173.66	3,000	410	1,000	15.1
08/25/09		197.47	24.35	173.12	2,500	140	<70	16.7
12/07/09	LFP	197.47	24.95	172.52	2,200	65	<72	34.6
03/25/10	LFP	197.47	24.35	173.12	1,400	74	93	17.7
06/14/10	LFP	197.47	24.17	173.30	3,100	190	<68	14.8
09/23/10	LFP	197.47	24.50	172.97	960	81	<67	10.9
12/14/10	LFP	197.47	24.35	173.12	2,100	140	220	7.2
03/24/11	LFP	197.47	INACCESSIBLE		--	--	--	--
06/28/11	LFP	197.47	22.56	174.91	7,100	710	370	10.9
09/28/11	LFP	197.47	23.23	174.24	3,700	170	<70	0.2
12/05/11	LFP	197.47	23.60	173.87	1,500	210	<70	14.4
03/06/12	LFP	197.47	23.40	174.07	2,900	290	98	--
06/06/12	LFP	197.47	22.80	174.67	4,400	960	180	--
09/05/12	LFP	197.47	23.33	174.14	2,700	360	<70	--
12/04/12	LFP	197.47	23.57	173.90	1,300	310	130	--
05/09/13	LFP	197.47	23.29	174.18	1,400	170	<75	--

TABLE 1
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FORMER TEXACO SERVICE STATION AND BULK TERMINAL NO. 307757
6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date		TOC (ft.)	DTW (ft.)	GWE (ft.)	TPH-GRO	TPH-DRO	TPH-HRO	T. Lead
MW-3								
11/04/03		195.56	23.10	172.46	4,200	1,600	<250	--
06/03/04		195.56	22.58	172.98	370	240	<250	--
10/06/04		195.56	23.24	172.32	340	69	<250	--
05/2005		195.56	--	--	1,100	580	<250	--
01/25/07		195.56	20.74	174.82	2,700	<400	<400	0.26
01/13/09		195.56	22.51	173.05	1,900	96	<67	26.4
06/09/09		195.56	22.62	172.94	3,500	330	550	18.4
08/25/09		195.56	23.00	172.56	680	<30	<69	18.1
12/07/09	LFP	195.56	23.49	172.07	220	53	<69	34.8
03/25/10	LFP	195.56	22.84	172.72	120	34	<69	20.2
06/14/10	LFP	195.56	22.67	172.89	1,500	33	<68	25.1
12/14/10	LFP	195.56	22.82	172.74	710	140	200	31.9
03/24/11	LFP	195.56	21.40	174.16	980	160	130	18.2
06/28/11	LFP	195.56	21.36	174.20	1,200	37	<69	6.9
09/28/11	LFP	195.56	22.10	173.46	780	<29	<67	0.5
12/05/11	LFP	195.56	22.40	173.16	180	54	<73	12.6
03/06/12	LFP	195.56	22.15	173.41	930	100	<76	--
06/06/12	LFP	195.56	21.50	174.06	1,100	390	370	--
09/05/12	LFP	195.56	22.33	173.23	1,200	150	97	--
12/04/12	LFP	195.56	22.31	173.25	440	100	90	--
05/08/13	LFP	195.56	22.06	173.50	180	<34	<80	--
MW-4								
11/04/03		195.81	23.39	172.42	<250	<50	<250	--
06/03/04		195.81	22.88	172.93	65	<50	<250	--
10/06/04		195.81	23.49	172.32	<50	60	<250	--
05/2005		195.81	--	--	<100	110	<250	--
01/25/07		195.81	21.06	174.75	<48	<79	130	<0.047
01/13/09		195.81	22.72	173.09	<50	41	<68	14.9
06/09/09		195.81	22.85	172.96	<50	91	<68	22.3
08/25/09		195.81	23.20	172.61	<50	65	<70	9.8
12/07/09	LFP	195.81	23.70	172.11	<50	<29	<68	23.8
03/25/10	LFP	195.81	23.10	172.71	<50	<29	<68	20.4
06/14/10	LFP	195.81	22.93	172.88	<50	42	<69	18.8
09/23/10	LFP	195.81	23.32	172.49	<50	45	<69	14.5
12/14/10	LFP	195.81	23.07	172.74	<50	<31	<72	13.1
03/24/11	LFP	195.81	21.70	174.11	<50	65	87	8.6
06/28/11	LFP	195.81	21.62	174.19	<50	<30	<69	6.1
09/28/11	LFP	195.81	23.20	172.61	<50	<29	<67	0.6
12/05/11	LFP	195.81	22.61	173.20	<50	<30	<69	2.8
03/06/12	LFP	195.81	22.40	173.41	<50	35	<69	--
06/06/12	LFP	195.81	21.80	174.01	<50	200	<70	--
09/05/12	LFP	195.81	22.37	173.44	<50	240	<70	--
12/04/12	LFP	195.81	22.48	173.33	<50	200	140	--
05/08/13	LFP	195.81	22.30	173.51	<50	78	<78	--

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6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date		TOC (ft.)	DTW (ft.)	GWE (ft.)	TPH-GRO	TPH-DRO	TPH-HRO	T. Lead
MW-5								
01/25/07		197.69	22.15	175.54	140	<400	<500	<0.047
01/13/09		197.69	23.79	173.90	69	63	88	41.5
06/09/09		197.69	23.95	173.74	<50	<60	<140 ¹	56.4
08/25/09		197.69	24.20	173.49	<50	<300	<700 ¹	17.5
12/07/09	LFP	197.69	24.98	172.71	<50	<30	<69	26.6
03/25/10	LFP	197.69	24.45	173.24	280	66	<69	25.3
06/14/10	LFP	197.69	24.31	173.38	200	100	<72	33.8
09/23/10	LFP	197.69	24.67	173.02	120	84	<68	33.3
12/14/10	LFP	197.69	25.03	172.66	240	150	<72	13.9
03/24/11	LFP	197.69	23.08	174.61	72	120	<72	8.8
06/28/11	LFP	197.69	22.75	174.94	66	38	<68	1.9
09/28/11	LFP	197.69	23.55	174.14	180	62	<69	0.5
12/05/11	LFP	197.69	23.85	173.84	220	83	<67	9.1
03/06/12	LFP	197.69	23.70	173.99	200	1,100	200	--
06/06/12	LFP	197.69	23.10	174.59	190	710	<70	--
09/05/12	LFP	197.69	23.66	174.03	140	860	73	--
12/04/12	LFP	197.69	23.87	173.82	180	420	<66	--
05/09/13	LFP	197.69	23.61	174.08	86	460	<79	--
MW-6								
01/25/07		195.26	20.39	174.87	11,000	3,500	810	0.95
01/13/09		195.26	22.28	172.98	400	40	<67	64.4
06/09/09		195.26	22.42	172.84	450	<300	<700 ¹	37.7
08/25/09		195.26	22.79	172.47	870	<60	<140 ¹	22.8
12/07/09	LFP	195.26	23.27	171.99	630	42	<70	72.2
03/25/10	LFP	195.26	22.55	172.71	280	<30	<69	30.8
06/14/10	LFP	195.26	22.39	172.87	1,400	110	<68	58.8
09/23/10	LFP	195.26	22.86	172.40	590	65	<69	33.7
12/14/10	LFP	195.26	22.56	172.70	240	37	<78	44.5
03/24/11	LFP	195.26	21.10	174.16	130	90	<71	23.5
06/28/11	LFP	195.26	21.13	174.13	810	34	<70	23.1
09/28/11	LFP	195.26	21.85	173.41	270	<29	<67	1.3
12/05/11	LFP	195.26	22.16	173.10	210	<30	<69	32.5
03/06/12	LFP	195.26	21.90	173.36	500	<30	<70	--
06/06/12	LFP	195.26	21.25	174.01	2,800	260	<70	--
09/05/12	LFP	195.26	21.93	173.33	1,100	130	<67	--
12/04/12	LFP	195.26	22.05	173.21	80	<29	<67	--
05/08/13	LFP	195.26	21.82	173.44	330	34	<75	--
MW-7								
01/25/07		194.63	20.02	174.61	<48	<400	<500	<0.047
01/13/09		194.63	21.64	172.99	<50	30	84	66.1
06/09/09		194.63	21.77	172.86	<50	<300 ¹	<700 ¹	72.0
08/25/09		194.63	22.12	172.51	<50	<29	<69	24.5
12/07/09	LFP	194.63	22.63	172.00	<50	<300 ¹	<700 ¹	54.8
03/25/10	LFP	194.63	22.04	172.59	<50	<30	<69	12.8
06/14/10	LFP	194.63	21.85	172.78	<50	<29	<68	26.9
09/23/10	LFP	194.63	22.26	172.37	<50	<29	<67	35.5
12/14/10		194.63	INACCESSIBLE		--	--	--	--
03/24/11	LFP	194.63	20.65	173.98	<50	<300 ¹	<700 ¹	27.5
06/28/11	LFP	194.63	20.57	174.06	<50	<30	<69	15.5

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Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date		TOC (ft.)	DTW (ft.)	GWE (ft.)	TPH-GRO	TPH-DRO	TPH-HRO	T. Lead
MW-7 (cont.)								
09/28/11	LFP	194.63	21.25	173.38	<50	<29	<67	2.1
12/05/11	LFP	194.63	21.55	173.08	<50	<29	<67	26.9
03/06/12	LFP	194.63	21.35	173.28	<50	<29	<67	--
06/06/12	LFP	194.63	20.75	173.88	<50	<31	<72	--
09/05/12	LFP	194.63	21.32	173.31	<50	<29	<68	--
12/04/12	LFP	194.63	21.45	173.18	<50	<29	<67	--
05/08/13	LFP	194.63	21.22	173.41	<50	<32	<74	--
MW-8								
01/13/09		198.01	23.42	174.59	64	58	<70	9.5
06/09/09		198.01	23.96	174.05	120	33	130	17.7
08/25/09		198.01	24.45	173.56	180	<30	<71	9.5
12/07/09	LFP	198.01	25.07	172.94	180	<30	<70	49.0
03/25/10	LFP	198.01	24.51	173.50	170	<29	<69	15.7
06/14/10	LFP	198.01	24.30	173.71	100	31	<68	8.1
09/23/10	LFP	198.01	24.75	173.26	62	<30	<69	9.4
12/14/10	LFP	198.01	24.52	173.49	150	32	220	5.5
03/24/11	LFP	198.01	22.05	175.96	380	<300 ¹	<700 ¹	5.0
06/28/11	LFP	198.01	21.42	176.59	100	<31	<71	<0.080
09/28/11	LFP	198.01	22.20	175.81	89	<31	<73	<0.080
12/05/11	LFP	198.01	22.55	175.46	360	<300	<700	1.5
03/06/12	LFP	198.01	22.40	175.61	<50	<29	<69	--
06/06/12	LFP	198.01	21.65	176.36	200	<33	<76	--
09/05/12	LFP	198.01	22.27	175.74	130	<29	<68	--
12/04/12	LFP	198.01	22.57	175.44	360	<300 ¹	<700 ¹	--
05/09/13	LFP	198.01	22.25	175.76	<50	<32	<76	--
MW-9								
01/13/09		198.39	24.13	174.26	<50	69	<68	22.4
06/09/09		198.39	24.28	174.11	<50	49	<70	29.7
08/25/09		198.39	24.52	173.87	<50	130	<70	14.7
12/07/09	LFP	198.39	25.38	173.01	<50	<28	<66	18.9
03/25/10	LFP	198.39	24.84	173.55	<50	<29	75	8.5
06/14/10	LFP	198.39	24.68	173.71	<50	31	<71	19.6
09/23/10	LFP	198.39	24.96	173.43	<50	<29	<67	9.0
12/14/10	LFP	198.39	24.84	173.55	<50	<30	<70	6.5
03/24/11	LFP	198.39	23.44	174.95	<50	51	140	6.4
06/28/11	LFP	198.39	22.98	175.41	<50	<30	140	0.3
09/28/11	LFP	198.39	23.67	174.72	<50	<31	<72	0.3
12/05/11	LFP	198.39	24.05	174.34	<50	<30	<69	4.4
03/06/12	LFP	198.39	23.90	174.49	<50	30	<68	--
06/06/12	LFP	198.39	23.25	175.14	<50	79	<74	--
09/05/12	LFP	198.39	23.80	174.59	<50	56	<68	--
12/04/12	LFP	198.39	24.07	174.32	<50	<29	<67	--
05/09/13	LFP	198.39	23.74	174.65	<50	<31	<73	--

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Concentrations reported in µg/L

Well ID/ Date		TOC (ft.)	DTW (ft.)	GWE (ft.)	TPH-GRO	TPH-DRO	TPH-HRO	T. Lead
MW-10								
01/13/09		193.41	21.18	172.23	8,200	690	93	45.8
06/09/09		193.41	21.26	172.15	5,300	370	<70	29.8
08/25/09		193.41	21.68	171.73	4,100	280	<70	24.6
12/07/09	LFP	193.41	22.10	171.31	4,200	330	<68	39.1
03/25/10	LFP	193.41	21.32	172.09	3,900	360	<69	40.8
06/14/10	LFP	193.41	21.18	172.23	4,000	210	<140	31.5
09/23/10	LFP	193.41	21.68	171.73	3,600	260	100	55.9
12/14/10	LFP	193.41	21.40	172.01	3,600	220	170	26.0
03/24/11	LFP	193.41	19.85	173.56	350	140	81	22.8
06/28/11		193.41	INACCESSIBLE		--	--	--	--
09/28/11		193.41	INACCESSIBLE		--	--	--	--
12/05/11	LFP	193.41	21.15	172.26	2,600	77	<70	3.9
03/06/12	LFP	193.41	19.90	173.51	510	<30	<69	--
06/06/12	LFP	193.41	21.30	172.11	<50	<32	<75	--
09/04/12	LFP	193.41	20.88	172.53	1,300	200	<73	--
12/04/12	LFP	193.41	21.22	172.19	<50	<29	<68	--
05/08/13	LFP	193.41	20.74	172.67	1,200	55	<74	--
MW-11								
09/19/11		193.69	20.23	173.46	<50	<32	<75	12.6
09/28/11	LFP	193.69	20.32	173.37	<50	<30	<69	1.0
12/05/11	LFP	193.69	20.60	173.09	<50	<30	<69	9.6
03/06/12	LFP	193.69	20.35	173.34	<50	<29	<68	--
06/06/12	LFP	193.69	19.70	173.99	<50	<31	<73	--
09/05/12	LFP	193.69	20.37	173.32	<50	<29	<69	--
12/04/12	LFP	193.69	20.49	173.20	<50	<28	<66	--
05/08/13	LFP	193.69	20.26	173.43	<50	<32	<75	--
MW-12								
09/19/11		195.99	22.39	173.60	<50	<30	<69	11.7
09/28/11	LFP	195.99	22.48	173.51	<50	<28	<66	0.4
12/05/11	LFP	195.99	22.78	173.21	1,300	62	110	9.3
03/06/12	LFP	195.99	22.55	173.44	76	91	<71	--
06/06/12	LFP	195.99	21.95	174.04	<50	<31	<72	--
09/05/12	LFP	195.99	22.56	173.43	420	170	<71	--
12/04/12	LFP	195.99	22.70	173.29	160	340	180	--
05/08/13	LFP	195.99	22.44	173.55	73	<33	<76	--
PURGE								
09/28/11		--	--	--				
12/05/11		--	--	--	<50	<28	<66	--
03/06/12		--	--	--	<50	<29	<68	<0.080
06/06/12		--	--	--	<50	<29	<68	<0.080
09/05/12		--	--	--	<50	<29	<67	<0.034
12/04/12		--	--	--	<50	<30	<70	0.19

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS - TPH AND TOTAL LEAD
FORMER TEXACO SERVICE STATION AND BULK TERMINAL NO. 307757
6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date		TOC (ft.)	DTW (ft.)	GWE (ft.)	TPH-GRO	TPH-DRO	TPH-HRO	T. Lead
TRIP BLANK QA								
06/09/09		--	--	--	<50	--	--	--
08/25/09		--	--	--	<50	--	--	--
12/07/09		--	--	--	<50	--	--	--
03/25/10		--	--	--	<50	--	--	--
06/14/10		--	--	--	<50	--	--	--
09/23/10		--	--	--	<50	--	--	--
12/14/10		--	--	--	<50	--	--	--
03/24/11		--	--	--	<50	--	--	--
06/28/11		--	--	--	<50	--	--	--
09/28/11		--	--	--	<50	--	--	--
12/05/11		--	--	--	<50	--	--	--
03/06/12		--	--	0.00	<50	--	--	--
06/06/12		--	--	--	<50	--	--	--
09/05/12		--	--	--	<50	--	--	--
12/04/12		--	--	--	<50	--	--	--
05/08/13		--	--	--	<50	--	--	--
Standard Laboratory Reporting Limits:					50	--	--	1
MTCA Method A Cleanup Levels:					800	500	500	15
Current Method:					NWTPH-Gx	NWTPH-Dx Extended		USEPA 6020

EXPLANATIONS:

Analytical results in bold font indicate concentrations exceed MTCA Method A cleanup levels.

(D) = Duplicate

DTW = Depth to Water

(ft.) = Feet

GWE = Groundwater Elevation

LFP = Low Flow Purge

MTCA = Model Toxics Control Act

QA = Quality Assurance/Trip Blank

TOC = Top of Casing

TPH = Total Petroleum Hydrocarbons

TPH-DRO = TPH as Diesel-Range Organics

TPH-HRO = TPH as Heavy Oil-Range Organics

TPH-GRO = TPH as Gasoline-Range Organics

USEPA = United States Environmental Protection Agency

µg/L = Micrograms per liter

-- = Not Measured/Not Analyzed

1 Laboratory report indicates the reporting limits were raised. Refer to original laboratory report for further details.

2 Sample container broke in transit to the laboratory.

TABLE 2
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS--
BTEX, MTBE, NAPHTHALENE¹
FORMER TEXACO SERVICE STATION AND BULK TERMINAL NO. 307757
6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene
MW-1						
01/13/09	3	1	15	38	<0.5	<1
01/13/09 (D)	2	<0.5	8	20	--	<1
06/09/09	8	2	24	50	<0.5	<1
08/25/09	INACCESSIBLE		--	--	--	--
12/07/09	5	1	18	41	<0.5	1
03/25/10	2	0.7	9	19	<0.5	<1
06/14/10	4	2	16	45	<0.5	<1
09/23/10	5	2	16	41	<0.5	<1
12/14/10	4	1	14	39	<0.5	1
03/24/11	39	10	57	190	<0.5	13
06/28/11	37	13	94	290	<1	19
09/28/11	0.5	<0.5	<0.5	<0.5	<0.5	<1
12/05/11	4	0.7	5	9	<0.5	1
03/06/12	5	2.1	4.6	23	<10	<1
06/06/12	10	3.9	20	52	<1	4
09/05/12	18	6.4	40	110	8.1	2
12/04/12	13	5	40	120	<3	8
05/08/13	3	1	2	13	<0.5	3
MW-2						
01/13/09	INACCESSIBLE		--	--	--	--
06/09/09	10	12	69	310	<0.5	6
08/25/09	15	15	80	339	<0.5	6
12/07/09	12	8	81	216	<0.5	3
03/25/10	14	6	85	140	<0.5	2
06/14/10	23	30	130	540	<0.5	12
09/23/10	12	2	72	59	<0.5	1
12/14/10	14	13	81	290	<0.5	4
03/24/11	INACCESSIBLE		--	--	--	--
06/28/11	13	67	300	1,100	<0.5	49
09/28/11	4	10	120	470	<0.5	10
12/05/11	2	3	59	140	<0.5	3
03/06/12	4.9	3.6	73	300	<2.5	9
06/06/12	11	17	140	540	<1	20
09/05/12	4.5	4.7	67	280	<2.5	11
12/04/12	1	0.8	19	110	<0.5	4
05/09/13	3	2	35	140	<0.5	6
MW-3						
01/13/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
06/09/09	<0.5	<0.5	<0.5	1	<0.5	5
08/25/09	<0.5	<0.5	<0.5	<1.0	<0.5	1
12/07/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
03/25/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1
06/14/10	<0.5	<0.5	<0.5	<0.5	<0.5	1
09/23/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1
12/14/10	<0.5	<0.5	<0.5	<0.5	<0.5	1
03/24/11	<0.5	<0.5	<0.5	<0.5	<0.5	1

TABLE 2
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS–
BTEX, MTBE, NAPHTHALENE¹
FORMER TEXACO SERVICE STATION AND BULK TERMINAL NO. 307757
6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene
MW-3 (cont.)						
06/28/11	<0.5	<0.5	<0.5	0.5	<0.5	4
09/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
12/05/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
03/06/12	3.6	<2.0	<0.5	<1.5	<10	<1
06/06/12	5.1	<2.0	<0.5	<1.5	<0.5	<1
09/05/12	4.5	<2.0	<0.5	<1.5	5.5	<1
12/04/12	<0.5	<0.5	<0.5	<0.5	<0.5	<1
05/08/13	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW-4						
01/13/09	360	<0.5	<0.5	<1.0	<0.5	<1
06/09/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
08/25/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
12/07/09	220	<0.5	<0.5	<1.0	<0.5	<1
03/25/10	1	<0.5	<0.5	<0.5	<0.5	<1
06/14/10	30	<0.5	<0.5	<0.5	<0.5	<1
09/23/10	46	<0.5	<0.5	<0.5	<0.5	<1
12/14/10	73	<0.5	<0.5	<0.5	<0.5	<1
03/24/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
06/28/11	6	<0.5	<0.5	<0.5	1	<1
09/28/11	27	<0.5	<0.5	<0.5	0.8	<1
12/05/11	9	<0.5	<0.5	<0.5	<0.5	<1
03/06/12	95	1.6	<0.5	<1.5	<2.5	<1
06/06/12	<0.5	<0.5	<0.5	<1.5	2	<1
09/05/12	9.0	<0.5	0.5	<1.5	<2.5	<1
12/04/12	20	<0.5	<0.5	<0.5	0.6	<1
05/08/13	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW-5						
01/13/09	<0.5	<0.6	<0.5	2.6	<0.5	<1
06/09/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
08/25/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
12/07/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
03/25/10	5	<0.5	<0.5	<0.5	0.9	<1
06/14/10	<0.5	<0.5	<0.5	<0.5	0.7	<1
09/23/10	2	<0.5	<0.5	<0.5	0.8	<1
12/14/10	12	<0.5	<0.5	<0.5	1	<1
03/24/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
06/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
09/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
12/05/11	1	<0.5	<0.5	<0.5	<0.5	<1
03/06/12	<0.5	<2.0	1.1	<5.0	<2.5	<1
06/06/12	<0.5	<0.5	1.5	1.9	<0.5	<1
09/05/12	<0.5	<0.5	1.5	1.6	<2.5	<1
12/04/12	<0.5	<0.5	<0.5	<0.5	<0.5	<1
05/09/13	<0.5	<0.5	<0.5	<0.5	<0.5	<1

TABLE 2
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS--
BTEX, MTBE, NAPHTHALENE¹
FORMER TEXACO SERVICE STATION AND BULK TERMINAL NO. 307757
6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene
MW-6						
01/13/09	0.6	<0.5	2	10	<0.5	11
06/09/09	<0.5	<0.5	<0.5	3	<0.5	2
08/25/09	0.6	<0.5	1	7	<0.5	6
12/07/09	5	2	3	6	<0.5	4
03/25/10	<0.5	<0.5	<0.5	2	<0.5	<1
06/14/10	1	<0.5	0.9	11	<0.5	4
09/23/10	0.7	<0.5	0.7	4	<0.5	3
12/14/10	<0.5	<0.5	<0.5	3	<0.5	2
03/24/11	<0.5	<0.5	<0.5	0.8	<0.5	<1
06/28/11	0.6	<0.5	0.5	8	<0.5	5
09/28/11	<0.5	<0.5	<0.5	2	<0.5	2
12/05/11	1	<0.5	<0.5	2	<0.5	2
03/06/12	4.0	0.5	2.6	7.6	<11	5
06/06/12	14	3.4	4.8	120	<0.5	19
09/05/12	7.0	0.9	1.5	10	11	5
12/04/12	<0.5	<0.5	<0.5	1	<0.5	<1
05/08/13	1	<0.5	0.8	3	<0.5	4
MW-7						
01/13/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
06/09/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
08/25/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
12/07/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
03/25/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1
06/14/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1
09/23/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1
12/14/10	INACCESSIBLE		--	--	--	--
03/24/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
06/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
09/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
12/05/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
03/06/12	<0.5	0.5	<0.5	<1.5	<2.5	<1
06/06/12	<0.5	<0.5	<0.5	<1.5	<0.5	<1
09/05/12	<0.5	<0.5	<0.5	<1.5	<0.5	<1
12/04/12	<0.5	<0.5	<0.5	<0.5	<0.5	<1
05/08/13	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW-8						
01/13/09	<0.5	<0.5	1	7	<0.5	<1
06/09/09	0.7	<0.5	<0.5	4	<0.5	<1
08/25/09	0.8	<0.5	1	7	<0.5	<1
12/07/09	1	<0.5	0.9	7	<0.5	<1
03/25/10	1	<0.5	1	4	<0.5	<1
06/14/10	0.6	<0.5	0.6	5	<0.5	<1
09/23/10	<0.5	<0.5	0.6	2	<0.5	<1
12/14/10	0.9	<0.5	1	12	<0.5	<1
03/24/11	2	<0.5	2	18	<0.5	<1
06/28/11	<0.5	<0.5	<0.5	3	<0.5	<1
09/28/11	0.5	<0.5	<0.5	3	<0.5	<1

TABLE 2
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS–
BTEX, MTBE, NAPHTHALENE¹
FORMER TEXACO SERVICE STATION AND BULK TERMINAL NO. 307757
6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene
MW-8 (cont.)						
12/05/11	2	<0.5	1	13	<0.5	<1
03/06/12	<0.5	<0.5	<0.5	<1.5	<2.5	<1
06/06/12	1.4	<2.0	1.1	7.9	<0.5	<1
09/05/12	1.1	<0.5	0.7	7.7	<2.5	<1
12/04/12	2	<0.5	1	9	<0.5	<1
05/09/13	<0.5	<0.5	<0.5	2	<0.5	<1
MW-9						
01/13/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
06/09/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
08/25/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
12/07/09	<0.5	<0.5	<0.5	<1.0	<0.5	<1
03/25/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1
06/14/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1
09/23/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1
12/14/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1
03/24/11	<0.5	<0.5	<0.5	1	<0.5	<1
06/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
09/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
12/05/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
03/06/12	<0.5	<0.5	<0.5	<1.5	<2.5	<1
06/06/12	<0.5	<0.5	<0.5	<1.5	<0.5	<1
09/05/12	<0.5	<0.5	<0.5	<1.5	<2.5	<1
12/04/12	<0.5	<0.5	<0.5	<0.5	<0.5	<1
05/09/13	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW-10						
01/13/09	3	8	11	21	<0.5	4
06/09/09	<0.5	2	12	<1.0	<0.5	4
08/25/09	<0.5	2	10	0.6	<0.5	2
12/07/09	<0.5	2	14	2	<0.5	2
03/25/10	<0.5	2	18	4	<0.5	2
06/14/10	1	2	17	5	<0.5	1
09/23/10	3	1	15	5	<0.5	1
12/14/10	2	0.8	13	5	<0.5	<1
03/24/11	0.5	<0.5	1	1	<0.5	<1
06/28/11	INACCESSIBLE		--	--	--	--
09/28/11	INACCESSIBLE		--	--	--	--
12/05/11	1	2	15	9	<0.5	<1
03/06/12	4.4	0.6	2.8	8.3	<12	5
06/06/12	<0.5	<0.5	<0.5	<1.5	<0.5	<1
09/04/12	12	2.4	7.2	5.4	17	<1
12/04/12	<0.5	<0.5	<0.5	<0.5	<0.5	<1
05/08/13	1	2	9	7	<0.5	<1

TABLE 2
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS--
BTEX, MTBE, NAPHTHALENE¹
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6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

Well ID/ Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene
MW-11						
09/19/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
03/06/12	<0.5	<0.5	<0.5	<1.5	<2.5	<1
06/06/12	<0.5	<0.5	<0.5	<1.5	<0.5	<1
09/05/12	<0.5	<0.5	<0.5	<1.5	<2.5	<1
12/04/12	<0.5	<0.5	<0.5	<0.5	<0.5	<1
05/08/13	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW-12						
09/19/11	2	<0.5	<0.5	0.6	<0.5	2
09/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	<1
12/05/08	3	<0.5	0.8	1	<0.5	34
12/05/08	190	<1	<0.5	0.7	2	2
12/05/11	10	3	13	35	<0.5	34
03/06/12	<0.5	<0.5	<0.5	<1.5	<2.5	2
06/06/12	<0.5	<0.5	<0.5	<1.5	<0.5	<1
09/05/12	1.5	0.8	7.1	1.6	<2.5	3
12/04/12	1	<0.5	<0.5	2	<0.5	3
05/08/13	<0.5	<0.5	<0.5	<0.5	<0.5	<1
PURGE						
12/05/11	<0.5	<0.5	<0.5	<0.5	--	--
03/06/12	<0.5	<0.5	<0.5	<0.5	--	--
06/06/12	<0.5	<0.5	<0.5	<0.5	--	--
09/05/12	<0.5	<0.5	<0.5	<0.5	--	--
12/04/12	<0.5	<0.5	<0.5	<0.5	--	--
QA						
12/07/09	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/25/10	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/14/10	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/23/10	--	--	--	--	--	--
12/14/10	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/24/11	<0.5	<0.5	<0.5	--	<0.5	--
06/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/28/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
12/05/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
03/06/12	<0.5	<0.5	<0.5	<1.5	<2.5	--
06/06/12	<0.5	<0.5	<0.5	<1.5	<0.5	--
09/05/12	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/04/12	<0.5	<0.5	<0.5	<0.5	<0.5	<1
05/08/13	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MTCA Method A Cleanup Levels:	5	1,000	700	1,000	20	160
Current Method:	USEPA 8021B or 8260B					8260B

TABLE 2
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS–
BTEX, MTBE, NAPHTHALENE¹
FORMER TEXACO SERVICE STATION AND BULK TERMINAL NO. 307757
6900 N.E. Highway 99
Vancouver, Washington
Concentrations reported in µg/L

EXPLANATIONS

1 Analytical results in bold font indicate concentrations exceed MTCA Method A cleanup levels.

(D) = Duplicate

BTEX = Benzene, toluene, ethylbenzene, and total xylenes

MTBE = Methyl Tertiary Butyl Ether

MTCA = Model Toxics Control Act

QA = Quality Assurance/Trip Blank

USEPA = United States Environmental Protection Agency

µg/L = Micrograms per liter

-- = Not Measured/Not Analyzed

Attachment A:
Groundwater Monitoring and Sampling Field Data

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-1-050813

WELL NUMBER: MW-1

DATE/TIME: 5/8/13 1641

WEATHER: 75°, sunny

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 22.34

Depth of well: 27.70

Screened interval: 18.5-28.5

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/8 1642	1 L	23.23	14.89	5.61	0.283	5.05	47.0	32.4
1645	1.5 L	23.25	14.70	5.58	0.290	4.23	42.7	11.8
1648	2.0 L	23.23	14.36	5.57	0.250	2.96	53.2	67.7
1651	2.5 L	23.22	14.33	5.58	0.243	2.45	88.9	12.4
1654	3.0 L	23.23	14.52	5.58	0.228	2.29	110.8	19.8
1657	3.5 L	23.23	14.19	5.56	0.202	2.37	122.0	28.3
<i>Dan H. H. T.</i>								

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40 mL	6	6
Amber	HCl	1 L	2	2

SAMPLE METHOD: ☒ Pump ☐ Bailer ☐ Other _____

FILTERED FOR METALS? Yes ☒ No ☐

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD:

Iced ☒

Signature: *Dan H. H. T.*

Date/Time: 1700 5/8/13

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-2-050913

WELL NUMBER: MW-2

DATE/TIME: 5/9/13 1058

WEATHER: overcast, 60°

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 23.29

Depth of well: 28.30

Screened interval: 19-29

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/9/13 1117	1L	23.41	13.94	6.40	0.358	1.80	-43.2	-3.3
1120	1.5L	23.44	13.69	6.39	0.356	1.75	-47.6	-3.6
1123	2.0L	23.45	13.69	6.39	0.356	1.85	-47.6	-3.6

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40mL	6	6
Amber	HCl	1L	2	2

SAMPLE METHOD: Pump Bailer Other _____

FILTERED FOR METALS? Yes (No)

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD: _____

Iced ☒

Signature: Daugherty

Date/Time: 5/9/13 1130

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-3- 050813

WELL NUMBER: MW-3

DATE/TIME: 5/8/13 1413

WEATHER: Sunny, 70°

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 22.06

Depth of well: 27.16

Screened interval: 17-27

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/8/13 1414	1 L	22.06	15.33	6.21	0.228	2.19	28.8	4.9
1417	1.5 L	22.06	15.06	6.13	0.221	1.95	32.3	6.3
1420	2.0 L	22.07	14.92	6.09	0.219	2.18	36.0	2.3
<i>Danglft</i>								

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40 mL	6	6
Amber	HCl	LL	2	2

SAMPLE METHOD: Pump Bailer Other _____

FILTERED FOR METALS? Yes No

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD: _____

Iced ☒

Signature: *Danglft*

Date/Time: 5/8/13

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-4 050813

WELL NUMBER: MW-4

DATE/TIME: ^{DH 5/8/13} ~~MW 4~~ 1215

WEATHER: overcast, 60°F

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 22.30

Depth of well: 26.55

Screened interval: 16-26

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/8/13 1159	1L	22.31	13.53	6.57	464	5.60	11.9	9.5
1202	1.5L	22.31	13.41	6.52	429	3.23	27.5	4.9
1205	2.0L	22.31	13.36	6.57	424	2.60	39.6	2.3
1208	2.5L	22.31	13.32	6.49	421	2.63	47.4	1.1
1211	3.0L	22.31	13.33	6.47	422	2.65	136.0	0.6
<i>Danfloss</i>								

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40mL	6	6
Amber	HCl	1L	2	2

SAMPLE METHOD: Pump Bailer Other _____

FILTERED FOR METALS? Yes (No)

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD:

Iced ☒

Signature: *Danfloss*

Date/Time: 5/8/13 1130

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-5- 050913

WELL NUMBER: MW-5

DATE/TIME: 5/9/13 1409

WEATHER: 75° sunny

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 23.61

Depth of well: 27.71

Screened interval: 18-28

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/9/13 1411	1L	24.07	14.70	6.43	0.701	6.16	-14.3	-7.2
1414	1.5L	24.15	14.53	6.52	0.700	4.50	-9.6	-3.2
1417	2.0L	24.11	14.59	6.37	0.705	4.05	-3.1	-2.1
1420	2.5L	24.10	14.41	6.36	0.708	4.26	8.8	-2.0
Don't start 5/9/13								

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40mL	6	6
Amber	HCl	1L	2	2

SAMPLE METHOD: ☒ Pump ☐ Bailer Other _____

FILTERED FOR METALS? Yes ☐ No ☒

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD: _____

Iced ☒

Signature: Don't start

Date/Time: 5/9/13 1430

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-7-050813

WELL NUMBER: MW-7

DATE/TIME: 5/8/13 1015

WEATHER: overcast, 60°F

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 21.22

Depth of well: 26.45

Screened interval: 17-27

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/8/13 1018	1 L	21.24	12.78	6.32	155	10.56	111.0	0.8
1021	1.5L	21.25	12.70	6.32	161	9.99	97.7	1.1
1024	2.0L	21.28	12.68	6.29	162	10.05	90.9	0.8
1027	2.5L	21.25	12.68	6.28	163	9.80	87.1	0.5

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40ml	6	6
Amber	HCl	6L	2	2

SAMPLE METHOD: Pump Bailer Other _____

FILTERED FOR METALS? Yes No

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD:

Iced ☒

Signature: Dan Helt

Date/Time: 5/8/13 1049

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-8- 050913

WELL NUMBER: MW-8

DATE/TIME: 5/9/13 1300

WEATHER: 80° sunny

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 22.25

Depth of well: 26.08

Screened interval: 19-29

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/9/13 1303	1L	22.43	15.23	5.89	0.190	5.95	79.8	17.5
1306	1.5L	22.43	15.00	5.83	0.193	3.07	72.5	22.9
1309	2.0L	22.43	14.86	5.85	0.193	2.77	67.2	22.1
1312	2.5L	22.43	14.86	5.94	0.196	3.03	52.9	9.2
<i>[Signature]</i>								

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40mL	6	6
Amber	HCl	1L	2	2

SAMPLE METHOD: Pump Bailer Other

FILTERED FOR METALS? Yes (No)

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD:

Iced ☒

Signature: *[Signature]*

Date/Time: 5/9/13 1320

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-9- 050913

WELL NUMBER: MW-9

DATE/TIME: 5/9/13 1500

WEATHER: 80° Sunny

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 23.74

Depth of well: 28.42

Screened interval: 19-29

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/9/13 1508	1L	24.07	15.13	5.70	0.208	2.73	112.7	2.7
1511	1.5L	24.11	15.00	5.40	0.202	1.58	152.7	1.8
1514	2.0L	24.11	14.96	5.31	0.202	1.03	159.4	-14.8
1517	2.5L	24.11	14.86	5.29	0.203	1.02	165.7	-16.0
1520	3.0L	24.11	14.86	5.29	0.203	1.06	166.2	-17.0
<i>[Signature]</i>								

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40mL	6	6
Amber	HCl	1L	2	2

SAMPLE METHOD: Pump Bailer Other

FILTERED FOR METALS? Yes No

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD:

Iced ☒

Signature: *[Signature]*

Date/Time:

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-10-0508/3

WELL NUMBER: MW-10

DATE/TIME: 5/8/13 0630

WEATHER: overcast, warm

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 20.74

Depth of well: 29.03

Screened interval: 19-29

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/8/13 0657	1 L	20.80	13.06	6.40	0.270	3.82	-41.2	-0.7
0654	1.5 L	20.80	13.01	6.40	0.268	1.48	-49.2	-0.8
0657	2.0 L	20.80	12.98	6.40	0.266	1.21	-51.5	-0.9
0700	2.5 L	20.80	12.95	6.40	0.265	1.07	-48.2	-0.7
0703	3.0 L	20.80	12.97	6.40	0.263	1.17	-46.5	-0.4
0706	3.5 L	20.80	12.96	6.40	0.260	1.15	-43.1	-0.8
<i>Danfht</i>								

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40mL	6	6
Amber	HCl	1L	2	2

SAMPLE METHOD: Pump Bailer Other _____

FILTERED FOR METALS? Yes No

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD:

Iced ☒

Signature: *Danfht*

Date/Time: 5/8/13 0720

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-11- 050813

WELL NUMBER: MW-11

DATE/TIME: 5/8/13 1545

WEATHER: 75° sunny

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 20.26

Depth of well: 28.54

Screened interval: 19-29

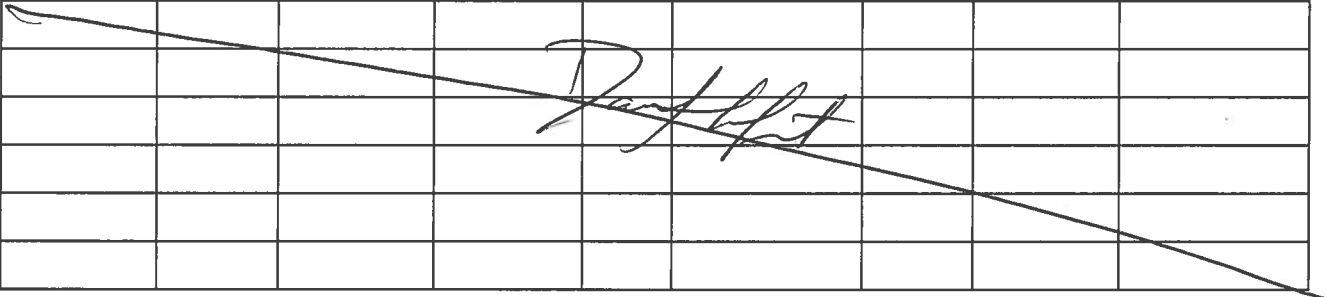
Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/8/13 1556	1L	20.29	16.22	5.98	0.218	9.18	115.6	-6.2
1559	1.5L	20.29	15.74	5.55	0.215	7.79	201.3	-15.6
1602	2.0L	20.30	15.76	5.53	0.214	7.71	220.1	-17.9
1605	2.5L	20.30	15.75	5.50	0.213	7.62	239.0	-19.4
								

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40mL	6	6
Amber	HCl	1L	2	2

SAMPLE METHOD: (Pump) Bailer Other _____

FILTERED FOR METALS? Yes (No)

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD: _____

Iced ☒

Signature: 

Date/Time: _____

GROUNDWATER SAMPLE COLLECTION

Chevron Facility # 30-7757

SAMPLE ID NO.: MW-12- 050813

WELL NUMBER: MW-12

DATE/TIME: 5/8/13 1327

WEATHER: overcast 60°F

ANALYSIS:

WELL PURGING DATA

Initial depth to water: 22.44

Depth of well: 28.46

Screened interval: 19-29

Volume of water in well:

Method of purging: low flow

Purge rate:

Method of decontaminating:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pH	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)
5/8/13 1329	1 L	22.50	13.88	6.54	549	9.41	141.6	4.2
1332	1.5L	22.50	13.81	6.54	552	8.79	156.2	2.9
1335	2.0L	22.50	13.74	6.53	551	8.27	165.3	0.9
<i>Dan Hft</i>								

Comments:

SAMPLE CONTAINER DATA:

Type	Preservative	Volume	No. Required	No. Filled
VOA	HCl	40ml	6	6
Amber	HCl	1 L	2	2

SAMPLE METHOD: Pump Bailer Other _____

FILTERED FOR METALS? Yes No

Photograph Taken? ☒

Sample Entered on C.O.C.? ☒

SAMPLE PRESERVATION METHOD: _____

Iced X

Signature: *Dan Hft*

Date/Time: 5/8/13

Attachment B:
Laboratory Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

May 23, 2013

Project: 307757

Submittal Date: 05/11/2013

Group Number: 1389319

PO Number: 0015117901

Release Number: HARMON

State of Sample Origin: WA

Client Sample DescriptionLancaster Labs (LLI) #

MW-10-050813 Grab Groundwater	7053465
MW-7-050813 Grab Groundwater	7053466
MW-4-050813 Grab Groundwater	7053467
MW-12-050813 Grab Groundwater	7053468
MW-3-050813 Grab Groundwater	7053469
MW-6-050813 Grab Groundwater	7053470
MW-11-050813 Grab Groundwater	7053471
MW-1-050813 Grab Groundwater	7053472
TB-1-050913 NA Water	7053473
TB-2-050913 NA Water	7053474
MW-2-050913 Grab Groundwater	7053475
MW-8-050913 Grab Groundwater	7053476
MW-5-050913 Grab Groundwater	7053477
MW-9-050913 Grab Groundwater	7053478

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

ELECTRONIC SAIC
COPY TO

Attn: Alex Shook

Respectfully Submitted,



Jill M. Parker
Senior Specialist

(717) 556-7262

Sample Description: MW-10-050813 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053465
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/08/2013 07:15 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	1	0.5	1
10943	Ethylbenzene	100-41-4	9	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	2	0.5	1
10943	Xylene (Total)	1330-20-7	7	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	1,200	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	55	32	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	74	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 14:01	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 14:01	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 20:13	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 20:13	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131360022A	05/20/2013 23:15	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	2	131360022A	05/17/2013 09:30	William H Saadeh	1

Sample Description: MW-7-050813 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053466
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/08/2013 10:30 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	N.D.	32	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	74	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	F131362AA	05/16/2013 08:17	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F131362AA	05/16/2013 08:17	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 21:04	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 21:04	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131360022A	05/20/2013 23:38	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	2	131360022A	05/17/2013 09:30	William H Saadeh	1

Sample Description: MW-4-050813 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053467
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/08/2013 12:20 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	78	33	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	78	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	F131401AA	05/20/2013 07:42	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F131401AA	05/20/2013 07:42	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 21:29	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 21:29	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131360022A	05/21/2013 00:00	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	2	131360022A	05/17/2013 09:30	William H Saadeh	1

Sample Description: MW-12-050813 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053468
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/08/2013 13:40 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	73	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	N.D.	33	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	76	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 15:09	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 15:09	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 21:54	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 21:54	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131400027A	05/22/2013 01:10	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	131400027A	05/21/2013 07:00	Catherine R Wiker	1

Sample Description: MW-3-050813 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053469
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/08/2013 14:25 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5 ug/l	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	180	50 ug/l	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	N.D.	34	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	80	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 15:32	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 15:32	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 22:19	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 22:19	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131400027A	05/22/2013 01:33	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	131400027A	05/21/2013 07:00	Catherine R Wiker	1

Sample Description: MW-6-050813 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053470
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/08/2013 15:20 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	1	0.5	1
10943	Ethylbenzene	100-41-4	0.8	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	4	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	3	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	330	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	34	32	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	75	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 15:55	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 15:55	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 22:45	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 22:45	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131400027A	05/22/2013 01:56	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	131400027A	05/21/2013 07:00	Catherine R Wiker	1

Sample Description: MW-11-050813 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053471
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/08/2013 16:10 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5 ug/l	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50 ug/l	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	N.D.	32	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	75	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 16:17	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 16:17	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 23:10	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 23:10	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131400027A	05/22/2013 02:18	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	131400027A	05/21/2013 07:00	Catherine R Wiker	1

Sample Description: MW-1-050813 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053472
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/08/2013 17:00 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	3	0.5	1
10943	Ethylbenzene	100-41-4	2	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	3	1	1
10943	Toluene	108-88-3	1	0.5	1
10943	Xylene (Total)	1330-20-7	13	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	420	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	N.D.	33	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	78	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 16:40	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 16:40	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 23:35	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 23:35	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131400027A	05/22/2013 02:41	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	131400027A	05/21/2013 07:00	Catherine R Wiker	1

Sample Description: TB-1-050913 NA Water
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053473
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/09/2013 11:00

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99VT1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	ug/l 0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	ug/l 50	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 12:24	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 12:24	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 17:44	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 17:44	Catherine J Schwarz	1

Sample Description: TB-2-050913 NA Water
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053474
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/09/2013 11:15

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99VT2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	ug/l 0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	ug/l 50	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 12:47	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 12:47	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/14/2013 18:09	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/14/2013 18:09	Catherine J Schwarz	1

Sample Description: MW-2-050913 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053475
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/09/2013 11:30 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V-2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	3	0.5	1
10943	Ethylbenzene	100-41-4	35	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	6	1	1
10943	Toluene	108-88-3	2	0.5	1
10943	Xylene (Total)	1330-20-7	140	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	1,400	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	170	32	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	75	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 17:03	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 17:03	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/15/2013 00:00	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/15/2013 00:00	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131400027A	05/22/2013 03:04	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	131400027A	05/21/2013 07:00	Catherine R Wiker	1

Sample Description: MW-8-050913 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053476
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/09/2013 13:15 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V-8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	2	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	N.D.	32	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	76	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 17:26	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 17:26	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13133A94A	05/15/2013 00:26	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13133A94A	05/15/2013 00:26	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131400027A	05/22/2013 03:27	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	131400027A	05/21/2013 07:00	Catherine R Wiker	1

Sample Description: MW-5-050913 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053477
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/09/2013 14:25 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	86	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	460	34	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	79	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 17:49	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 17:49	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13140B20A	05/21/2013 18:03	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	13140B20A	05/21/2013 18:03	Marie D John	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131400027A	05/22/2013 03:50	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	131400027A	05/21/2013 07:00	Catherine R Wiker	1

Sample Description: MW-9-050913 Grab Groundwater
Facility# 307757
6900 NE Highway 99 - Vancouver, WA

LLI Sample # WW 7053478
LLI Group # 1389319
Account # 11255

Project Name: 307757

Collected: 05/09/2013 15:25 by DH

Chevron

L4310

Submitted: 05/11/2013 09:30

6001 Bollinger Canyon Road

Reported: 05/23/2013 12:38

San Ramon CA 94583

99V09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Naphthalene	91-20-3	N.D.	1	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
08271	Diesel Range Organics C12-C24	n.a.	N.D.	31	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	73	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE/Naphthalene - Water	SW-846 8260B	1	D131351AA	05/15/2013 18:12	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D131351AA	05/15/2013 18:12	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13140B20A	05/21/2013 18:25	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	13140B20A	05/21/2013 18:25	Marie D John	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	131400027A	05/22/2013 04:12	Christine E Dolman	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	131400027A	05/21/2013 07:00	Catherine R Wiker	1

Quality Control Summary

Client Name: Chevron

Group Number: 1389319

Reported: 05/23/13 at 12:38 PM

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: D131351AA	Sample number(s): 7053465,7053468-7053478							
Benzene	N.D.	0.5	ug/l	93		77-121		
Ethylbenzene	N.D.	0.5	ug/l	90		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	87		68-121		
Naphthalene	N.D.	1.	ug/l	78		47-126		
Toluene	N.D.	0.5	ug/l	91		79-120		
Xylene (Total)	N.D.	0.5	ug/l	91		77-120		
Batch number: F131362AA	Sample number(s): 7053466							
Benzene	N.D.	0.5	ug/l	88		77-121		
Ethylbenzene	N.D.	0.5	ug/l	86		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	89		68-121		
Naphthalene	N.D.	1.	ug/l	81		47-126		
Toluene	N.D.	0.5	ug/l	87		79-120		
Xylene (Total)	N.D.	0.5	ug/l	88		77-120		
Batch number: F131401AA	Sample number(s): 7053467							
Benzene	N.D.	0.5	ug/l	89		77-121		
Ethylbenzene	N.D.	0.5	ug/l	90		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	95		68-121		
Naphthalene	N.D.	1.	ug/l	81		47-126		
Toluene	N.D.	0.5	ug/l	89		79-120		
Xylene (Total)	N.D.	0.5	ug/l	89		77-120		
Batch number: 13133A94A	Sample number(s): 7053465-7053476							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	91	91	75-135	0	30
Batch number: 13140B20A	Sample number(s): 7053477-7053478							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	92	92	75-135	0	30
Batch number: 131360022A	Sample number(s): 7053465-7053467							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	77	76	50-113	0	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 131400027A	Sample number(s): 7053468-7053472,7053475-7053478							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	75	77	50-113	3	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					

Sample Matrix Quality Control

*- 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: Chevron

Group Number: 1389319

Reported: 05/23/13 at 12:38 PM

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>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: D131351AA	Sample number(s): 7053465,7053468-7053478 UNSPK: 7053465								
Benzene	107	109	72-134	1	30				
Ethylbenzene	110	109	71-134	0	30				
Methyl Tertiary Butyl Ether	91	93	72-126	2	30				
Naphthalene	100	100	52-125	0	30				
Toluene	106	106	80-125	0	30				
Xylene (Total)	109	110	79-125	0	30				
Batch number: F131362AA	Sample number(s): 7053466 UNSPK: 7053466								
Benzene	99	101	72-134	3	30				
Ethylbenzene	99	98	71-134	1	30				
Methyl Tertiary Butyl Ether	96	101	72-126	5	30				
Naphthalene	89	92	52-125	3	30				
Toluene	100	99	80-125	1	30				
Xylene (Total)	101	102	79-125	1	30				
Batch number: F131401AA	Sample number(s): 7053467 UNSPK: 7053467								
Benzene	99	98	72-134	1	30				
Ethylbenzene	98	99	71-134	0	30				
Methyl Tertiary Butyl Ether	103	100	72-126	3	30				
Naphthalene	87	85	52-125	3	30				
Toluene	97	96	80-125	1	30				
Xylene (Total)	98	98	79-125	1	30				

Surrogate Quality Control

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

Analysis Name: UST VOCs by 8260B - Water

Batch number: D131351AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7053465	97	95	97	102
7053468	96	100	97	97
7053469	97	96	99	97
7053470	97	98	97	98
7053471	96	98	97	97
7053472	95	97	98	99
7053473	97	99	98	98
7053474	96	95	98	97
7053475	97	95	97	99
7053476	95	101	98	98
7053477	97	96	97	100
7053478	97	100	99	98
Blank	97	101	99	98
LCS	98	100	98	98
MS	98	101	96	99
MSD	98	103	96	98

*- 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: Chevron
Reported: 05/23/13 at 12:38 PM

Group Number: 1389319

Surrogate Quality Control

Limits:	80-116	77-113	80-113	78-113
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Analysis Name: UST VOCs by 8260B - Water

Batch number: F131362AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
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7053466	101	101	104	98
Blank	102	104	102	99
LCS	100	102	99	96
MS	101	100	99	98
MSD	103	106	99	97

Limits:	80-116	77-113	80-113	78-113
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Analysis Name: UST VOCs by 8260B - Water

Batch number: F131401AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
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7053467	102	96	98	96
Blank	103	92	97	95
LCS	103	95	99	98
MS	103	97	99	98
MSD	102	95	99	96

Limits:	80-116	77-113	80-113	78-113
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Analysis Name: NWTPH-Gx water C7-C12

Batch number: 13133A94A

Trifluorotoluene-F

7053465	133
7053466	77
7053467	71
7053468	77
7053469	79
7053470	90
7053471	72
7053472	90
7053473	72
7053474	72
7053475	93
7053476	76
Blank	70
LCS	83
LCSD	82

Limits:	63-135
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Analysis Name: NWTPH-Gx water C7-C12

Batch number: 13140B20A

Trifluorotoluene-F

7053477	76
7053478	77
Blank	80

*- 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: Chevron
Reported: 05/23/13 at 12:38 PM

Group Number: 1389319

Surrogate Quality Control

LCS 105
LCSD 105

Limits: 63-135

Analysis Name: NWTPH-Dx water
Batch number: 131360022A
Orthoterphenyl

7053465 100
7053466 97
7053467 95
Blank 102
LCS 110
LCSD 108

Limits: 50-150

Analysis Name: NWTPH-Dx water
Batch number: 131400027A
Orthoterphenyl

7053468 105
7053469 107
7053470 104
7053471 102
7053472 106
7053475 103
7053476 101
7053477 97
7053478 99
Blank 103
LCS 111
LCSD 112

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**

Acct. # 11255

For Lancaster Laboratories use only
Group # 1389319 Sample # 7053465-78
Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix		5 Analyses Requested												6 Remarks							
Facility # <u>307757</u> WBS <u>NWRTB-307757-0-LAB</u> Site Address <u>6900 NE Highway 99, Vancouver, WA</u> Chevron PM <u>Marlea Harmon</u> Lead Consultant <u>SAIC</u> Consultant/Office <u>SAIC Bothell, WA</u> Consultant Project Mgr. <u>Alex Shook</u> Consultant Phone # <u>503 220 1646</u> Sampler <u>D. Halpert / J. Green</u>				☐ Sediment ☒ Ground ☐ Surface ☐ Potable ☐ NPDES ☐ Air		Total Number of Containers BTEX + MTBE 8021 ☐ 8260 ☒ Naphth ☒ 8260 full scan Oxygenates NWTPH GX NWTPH DX ☒ Silica Gel Cleanup ☐ Lead Total ☐ Diss. ☐ Method WAPPH ☐ WAEPPH ☐												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							
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	Silica Gel Cleanup	Lead	Total	Diss.	Method	WAPPH	WAEPPH
Date	Time	Grab																							
MW-10-050813	5/8/13	0715	X			X			8	X							X	X							
MW-7-050813	5/8/13	1030	X			X			8	X							X	X							
MW-4-050813	5/8/13	1220	X			X			8	X							X	X							
MW-12-050813	5/8/13	1340	X			X			8	X							X	X							
MW-3-050813	5/8/13	1425	X			X			8	X							X	X							
MW-6-050813	5/8/13	1520	X			X			8	X							X	X							
MW-11-050813	5/8/13	1610	X			X			8	X							X	X							
MW-1-050813	5/8/13	1700	X			X			8	X							X	X							
TB-1-050913	5/9/13	1100	X			X			2	X							X								
TB-2-050913	5/9/13	1115	X			X			2	X							X								
MW-2-050913	5/9/13	1130	X			X			8	X							X	X							
MW-8-050913	5/9/13	1315	X			X			8	X							X	X							
MW-5-050913	5/9/13	1425	X			X			8	X							X	X							
7 Turnaround Time Requested (TAT) (please circle) Standard 5 day 4 day 72 hour 48 hour 24 hour						Relinquished by <u>[Signature]</u> Date <u>5/9/13</u> Time <u>1600</u> Relinquished by _____ Date _____ Time _____						Received by _____ Date _____ Time _____ Received by _____ Date _____ Time _____													
8 Data Package Options (please circle if required) Type I - Full Type VI (Raw Data)						Relinquished by Commerical Carrier: UPS _____ FedEx <u>X</u> Other _____ Temperature Upon Receipt <u>0.5-6.0°C</u>						Received by <u>[Signature]</u> Date <u>5/11/13</u> Time <u>0930</u> Custody Seals Intact? <u>Yes</u> No													

**Lancaster
Laboratories**

Acct. # 11255

For Lancaster Laboratories use only
Group # 1389319 Sample # 7053465-78
Instructions on reverse side correspond with circled numbers.

Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

Issued by Dept. 40 Management

7051.01

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
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 of gas 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.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

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

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

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

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

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