



September 5, 2012

Mr. Eugene Radcliff
Washington State Department of Ecology
PO Box 47775
Olympia, Washington 98504

Subject: **Second Quarter 2012 Groundwater Monitoring and Sampling Report
76 Products Facility No. 351386**
1300 West 12th Street
Vancouver, Washington
Washington State Department of Ecology Facility No. 47231541

Dear Mr. Radcliff:

On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California (EMC), SAIC Energy, Environment & Infrastructure, LLC (SAIC) submits this Groundwater Monitoring and Sampling Report for the above-referenced site (Figure 1). Quarterly groundwater monitoring and sampling activities were conducted by Blaine Tech Services, Inc. (Blaine Tech) on June 18, 2012. The Blaine Tech groundwater monitoring and sampling package is provided as Attachment A.

FIELD ACTIVITIES

On June 18, 2012, depth to groundwater was measured in wells MW-1, MW-2, MW-4, MW-5A, and MW-6. The groundwater elevation ranged from 56.64 feet (MW-4) to 58.89 feet (MW-5A) based on an arbitrary benchmark elevation of 100.00 feet. Due to the variability of groundwater elevation measurements, groundwater flow direction could not be determined. Groundwater flow has historically varied; however, it was to the southwest during second quarter 2011 monitoring event.

Groundwater samples were collected from all monitoring wells and shipped under chain-of-custody protocol to Lancaster Laboratories, Inc. in Lancaster, Pennsylvania.

Groundwater samples were submitted for the following analyses:

- Total petroleum hydrocarbons (TPH) as diesel-range organics (TPH-D) and TPH as heavy oil-range organics (TPH-O) by Northwest Method NWTPH-Dx; and
- Selected Volatile Organic Compounds by United States Environmental Protection Agency Method 8260B.

Laboratory analytical results are included as Attachment B and a site plan with groundwater analytical results is shown on Figure 1. In addition, hydrographs for wells MW-1, MW-2, MW-4, and MW-5A are included in Attachment C.

RESULTS

The results of the second quarter 2012 sampling event indicate that concentrations of contaminants of concern are generally consistent and following a downward trend with respect to historical data. Below is a summary of analytical results:

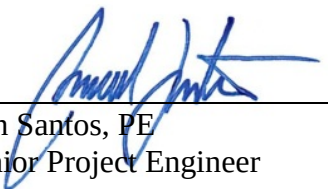
- TPH-O was detected in groundwater from wells MW-4 and MW-5 at concentrations greater than the Model Toxic Control Act (MTCA) Method A cleanup level.
- Tetrachloroethene was detected in groundwater from wells MW-4 and MW-5 at concentrations greater than MTCA Method A cleanup level.
- Remaining analytes were below their respective MTCA Method A cleanup levels or laboratory reporting limits.

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

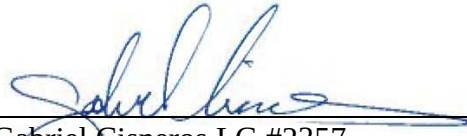
If you have any questions or comments, please contact me at (208) 429-3772 or via email at ronald.santos@saic.com.

Sincerely,

SAIC Energy, Environment & Infrastructure, LLC



Ron Santos, PE
Senior Project Engineer



Gabriel Cisneros LG #2357
Geologist



Enclosures:

Figure 1 – Site Plan with Groundwater Analytical Results

Table 1 – Groundwater Monitoring Data and Analytical Results

Attachment A – Groundwater Monitoring and Sampling Data Package

Attachment B – Laboratory Analysis Report

Attachment C – Hydrographs

cc: Mr. J. Mark Inglis – Union Oil of California
Ms. Sheila Smith, Emerald West, LLC – Property Owner
Project File

REPORT LIMITATIONS

This technical document was prepared on behalf of Chevron 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 that 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.

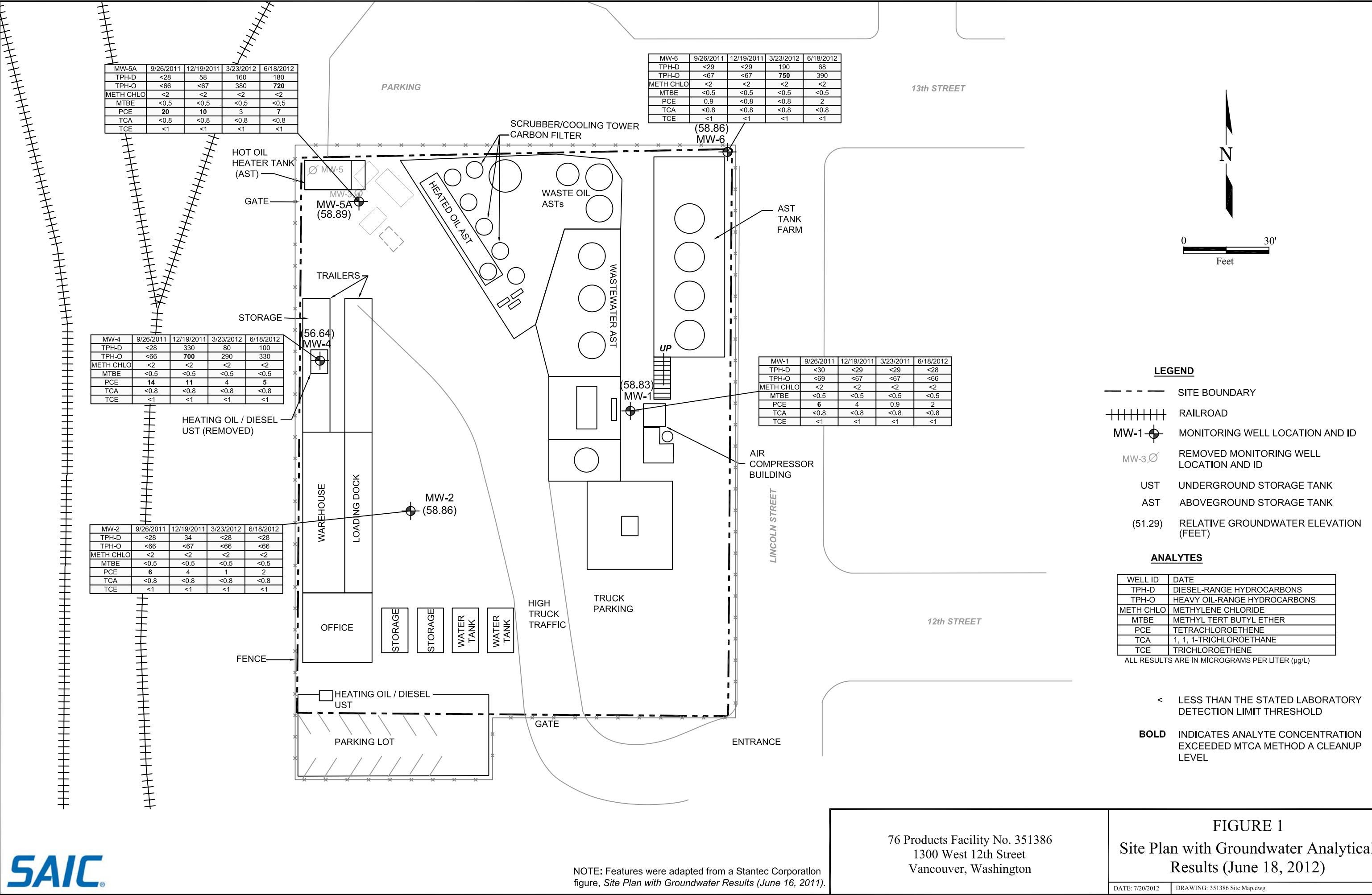


TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
76 PRODUCTS FACILITY No. 351386
1300 W 12th Street, Vancouver, Washington
Concentrations reported in µg/L unless otherwise noted

Well ID TOC Elevation (ft)	Sample Date	Depth to Water (ft)	GW Elevation (ft)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Methylene Chloride	MTBE	1,1,1-TCA	TCE	PCE	Dissolved Lead (mg/L)	Total Lead (mg/L)	Ethanol	Dissolved Oxygen (mg/L)
MW-1 96.52	04/24/00	37.34	59.18	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--
	08/30/00	44.19	52.33	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.96	--	--	--	--
	10/04/00	44.75	51.77	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.98	<0.00100	--	--	--
	01/15/01	43.41	53.11	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.88	--	--	--	--
	04/23/01	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	07/25/01	46.17	50.35	--	--	--	--	--	--	--	--	ND	3.63	ND	ND	1.83	<0.00100	0.0478	--	--
	10/16/01	45.38	51.14	--	--	--	--	--	--	--	--	ND	1.67	ND	ND	1.29	<0.00859	0.0231	--	--
	01/09/02	40.90	55.62	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	<0.00100	0.00252	--	--
	04/04/02	42.96	53.56	--	--	--	--	--	--	--	--	ND	5,120	ND	ND	108	--	--	--	--
	07/08/02	40.24	56.28	--	--	--	--	--	--	--	--	ND	476	ND	ND	28.2	--	--	--	--
	10/30/02	45.25	51.27	--	--	--	--	--	--	--	--	ND	144	ND	1.46	11.4	--	--	--	--
	01/17/03	43.05	53.47	--	--	--	--	--	--	--	--	ND	346	ND	ND	15.1	--	--	--	--
	04/04/03	40.23	56.29	--	--	--	--	--	--	--	--	ND	85.3	ND	ND	2.93	--	--	--	--
	07/02/03	42.58	53.94	--	--	--	--	--	--	--	--	ND	574	ND	ND	17.3	--	--	--	--
	01/28/04	40.90	55.62	--	--	--	--	--	--	--	--	ND	326	ND	ND	ND	--	--	--	--
	04/26/04	42.75	53.77	--	--	--	--	--	--	--	--	ND	338	ND	0.757	6.31	--	--	--	2.03
	07/23/04	44.25	52.27	--	--	--	--	--	--	--	--	ND	127	ND	2.06	19.5	--	--	--	--
	11/05/04	44.13	52.39	--	--	--	--	--	--	--	--	1.01	447	ND	1.3	8.06	--	--	--	2.88
	02/04/05	43.68	52.84	--	--	--	--	--	--	--	--	<1.0	192	ND	12.6	1.08	--	--	--	--
	05/10/05	41.02	55.50	--	--	--	--	--	--	--	--	<5.0	197	ND	ND	ND	--	--	--	--
	08/08/05	43.72	52.80	--	--	--	--	--	--	--	--	<1.0	234	<200	1.33	12.9	--	--	--	4.88
	12/13/05	43.67	52.85	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	6.0	--	--	--	7.59
	03/03/06	40.78	55.74	--	--	--	--	--	--	--	--	<2.0	100	<0.8	<1.0	6.0	--	--	--	6.23
	06/29/06	40.30	56.22	--	--	--	--	--	--	--	--	<2.0	18	<0.8	<1.0	10	--	--	--	6.04
	09/08/06	44.40	52.12	--	--	--	--	--	--	--	--	<2.0	58	<0.8	1.0	10	--	--	--	6.89
	12/01/06	41.34	55.18	--	--	--	--	--	--	--	--	<2.0	19	<0.8	<1.0	4.0	--	--	--	5.20
	03/01/07	41.60	54.92	--	--	--	--	--	--	--	--	<2.0	14	<0.8	<1.0	7.0	--	--	--	7.35
	06/28/07	43.10	53.42	--	--	--	--	--	--	--	--	<2	<0.5	<0.8	1	12	--	--	--	7.0
	02/01/08	42.25	54.27	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	7	--	--	--	--
	03/20/08	42.07	54.45	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	5	--	--	--	--
	06/19/08	36.39	60.13	--	--	--	<0.5	<0.7	<0.8	<0.8	2	<2	<0.5	<0.8	<1	3	--	--	--	--
	09/30/08	44.92	51.60	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	9.2	--	--	--	--
	11/07/08	44.65	51.87	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	<1	8	--	--	--	--
	02/19/09	44.19	52.33	--	--	--	<0.12	<0.21	<0.20	<0.27	0.78	<1.0	<0.16	<0.20	0.34	8.5	--	--	--	--
97.10	04/21/09	42.02	55.08	--	--	--	<0.12	<0.21	<0.20	<0.27	1.7	<1.0	<0.16	<0.20	<0.22	4.3	--	--	--	--
	07/30/09	44.25	52.85	--	--	--	<0.12	<0.21	<0.20	<0.27	1.1	<1.0	<0.16	<0.20	0.32 J	6.1	--	--	--	--
	10/27/09	45.98	51.12	--	--	--	0.13 J	0.69 J	<0.20	<0.42	1.1	<1.0	<0.16	<0.20	<0.22	5.1	--	--	--	--
	03/12/10	44.38	52.72	--	--	--	<0.12	<0.21	<0.20	<0.42	1.6	<0.26	<0.16	<0.20	<0.22	3.3	--	--	--	--
	06/04/10	40.20	56.90	--	<77.7	<388	<1.0	<1.0	<1.0	<3.0	1.6	<4.0	<1.0	<1.0	<1.0	2.8	--	--	--	--
	09/02/10	46.00	51.10	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	4.6	--	--	--	--
	12/01/10	43.36	53.74	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	2.0	<4.0	<1.0	<1.0	<1.0	2.4	--	--	--	--
	03/08/11	40.53	56.57	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	1.8	<4.0	<1.0	<1.0	<1.0	2.2	--	--	--	--



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Well ID TOC Elevation (ft)	Sample Date	Depth to Water (ft)	GW Elevation (ft)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Methylene Chloride	MTBE	1,1,1-TCA	TCE	PCE	Dissolved Lead (mg/L)	Total Lead (mg/L)	Ethanol	Dissolved Oxygen (mg/L)
MW-1 (cont)	06/16/11	31.98	65.12	--	<88.9	<444	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	1.4	--	--	--	--
	09/26/11	45.00	52.10	<50	<30	<69	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	6	--	--	<50	--
	12/19/11	45.15	51.95	--	<29	<67	<0.5	<0.5	<0.5	<1	<0.8	<2	<0.5	<0.8	<1	4	--	--	<50	--
	03/23/12	28.61	68.49	--	<29	<67	<0.5	<0.5	<0.5	<1	<0.8	<2	<0.5	<0.8	<1	0.9	--	--	<50	--
	06/18/12	38.27	58.83	--	<28	<66	<0.5	<0.5	<0.5	<1	<0.8	<2	<0.5	<0.8	<1	2	--	--	<50	--
MW-2 96.95	04/24/00	37.76	59.19	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--
	08/30/00	44.63	52.32	--	--	--	--	--	--	--	--	ND	ND	1.07	ND	4.00	--	--	--	--
	10/04/00	45.26	51.69	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.37	<0.00100	--	--	--
	01/15/01	43.87	53.08	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.24	--	--	--	--
	04/23/01	44.97	51.98	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.29	<0.00100	0.00600	--	--
	07/25/01	46.65	50.30	--	--	--	--	--	--	--	--	ND	ND	ND	ND	6.74	<0.00100	0.0733	--	--
	10/16/01	45.72	51.23	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.26	<0.00100	0.0157	--	--
	01/09/02	41.34	55.61	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.33	<0.00100	0.00757	--	--
	04/04/02	43.42	53.53	--	--	--	--	--	--	--	--	ND	1.54	ND	ND	3.78	--	--	--	--
	07/08/02	40.69	56.26	--	--	--	--	--	--	--	--	ND	ND	ND	1.48	6.88	--	--	--	--
	10/30/02	45.74	51.21	--	--	--	--	--	--	--	--	ND	ND	ND	7.1	<5	--	--	--	--
	01/17/03	43.49	53.46	--	--	--	--	--	--	--	--	ND	1.03	ND	1.22	8.83	--	--	--	--
	04/04/03	40.70	56.25	--	--	--	--	--	--	--	--	ND	11.8	ND	ND	5.34	--	--	--	--
	07/02/03	43.02	53.93	--	--	--	--	--	--	--	--	ND	3.33	ND	1.55	8.91	--	--	--	--
	01/28/04	41.35	55.60	--	--	--	--	--	--	--	--	ND	40.4	ND	2.1	9.4	--	--	--	--
	04/26/04	43.21	53.74	--	--	--	--	--	--	--	--	ND	16.1	0.563	2.53	12.5	--	--	--	1.91
	07/23/04	44.70	52.25	--	--	--	--	--	--	--	--	ND	7.24	0.899	3.58	18.5	--	--	--	--
	11/05/04	44.60	52.35	--	--	--	--	--	--	--	--	ND	2.67	ND	2.74	10.8	--	--	--	2.83
	02/04/05	44.13	52.82	--	--	--	--	--	--	--	--	<1.0	2.78	ND	3.20	17	--	--	--	--
	05/10/05	41.42	55.53	--	--	--	--	--	--	--	--	<5.0	ND	ND	ND	4.84	--	--	--	--
	08/08/05	44.16	52.79	--	--	--	--	--	--	--	--	<1.0	29.2	<200	3.26	15.6	--	--	--	3.84
	12/13/05	44.14	52.81	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	1.0	9.0	--	--	--	7.36
	03/03/06	41.22	55.73	--	--	--	--	--	--	--	--	<2.0	7.0	<0.8	2.0	8.0	--	--	--	6.3
	06/29/06	40.78	56.17	--	--	--	--	--	--	--	--	<2.0	12	<0.8	2.0	13	--	--	--	6.2
	09/08/06	42.82	54.13	--	--	--	--	--	--	--	--	<2.0	120	<0.8	4.0	20	--	--	--	5.5
	12/01/06	41.81	55.14	--	--	--	--	--	--	--	--	<2.0	5.0	<0.8	<1.0	8.0	--	--	--	4.95
	03/01/07	42.08	54.87	--	--	--	--	--	--	--	--	<2.0	23.0	<0.8	2.0	11.0	--	--	--	5.7
	06/28/07	43.64	53.31	--	--	--	--	--	--	--	--	<2	35	<0.8	2	13	--	--	--	6.40
	02/01/08	42.70	54.25	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	7	--	--	--	--
	03/20/08	42.50	54.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/08	36.82	60.13	--	--	--	<0.5	<0.7	<0.8	<0.8	3	<2	<0.5	<0.8	<1	7	--	--	--	--
	09/30/08	45.30	51.65	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.9	11	--	--	--	--
	11/07/08	45.10	51.85	--	--	--	<0.5	<0.7	<0.8	<0.8	2	<2	<0.5	<0.8	<1	8	--	--	--	--
	02/19/09	45.60	51.35	--	--	--	<0.12	<0.21	<0.20	<0.27	2.5	<1.0	<0.16	0.22	1.1	9.2	--	--	--	--
	04/21/09	41.82	55.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	07/30/09	44.00	52.95	--	--	--	<0.12	<0.21	<0.20	<0.27	2.1	<1.0	<0.16	<0.20	1.1	8.8	--	--	--	--
	10/27/09	45.77	51.18	--	--	--	<0.12	<0.21	<0.20	<0.42	2.1	<1.0	<0.16	<0.20	0.60 J	5.1	--	--	--	--
	03/12/10	44.15	52.80	--	--	--	<0.12	<0.21	<0.20	<0.42	2.7	<0.26	<0.16	<0.20	0.54 J	3.6	--	--	--	--



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MW-2 (cont)	06/04/10	40.06	56.89	--	<77.7	<388	<1.0	<1.0	<1.0	<3.0	3.5	<4.0	<1.0	<1.0	<1.0	2.1	--	--	--	--
	09/02/10	45.82	51.13	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	1.6	<4.0	<1.0	<1.0	1.0	6.0	--	--	--	--
	12/01/10	43.15	53.80	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	3.5	<4.0	<1.0	<1.0	<1.0	2.3	--	--	--	--
	03/08/11	40.33	56.62	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	3.6	<4.0	<1.0	<1.0	<1.0	2.9	--	--	--	--
	06/16/11	31.87	65.08	--	<81.6	<408	<1.0	<1.0	<1.0	<3.0	2.5	<4.0	<1.0	<1.0	<1.0	2.2	--	--	--	--
	09/26/11	44.79	52.16	<50	<28	<66	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	6	--	--	<50	--
	12/19/11	45.11	51.84	--	34	<67	<0.5	<0.5	<0.5	<1	2	<2	<0.5	<0.8	<1	4	--	--	<50	--
	03/23/12	28.49	68.46	--	<28	<66	<0.5	<0.5	<0.5	<1	3	<2	<0.5	<0.8	<1	1	--	--	<50	--
MW-4 95.80	06/18/12	38.09	58.86	--	<28	<66	<0.5	<0.5	<0.5	<1	4	<2	<0.5	<0.8	<1	2	--	--	<50	--
	08/30/00	43.50	52.30	--	--	--	--	--	--	--	--	ND	ND	ND	ND	12.6	--	--	--	--
	10/04/00	44.07	51.73	--	--	--	--	--	--	--	--	ND	ND	ND	ND	12.8	0.00122	--	--	--
	01/15/01	42.69	53.11	--	--	--	--	--	--	--	--	ND	ND	ND	ND	5.19	--	--	--	--
	04/23/01	43.87	51.93	--	--	--	--	--	--	--	--	ND	ND	ND	ND	9.02	<0.00100	0.00238	--	--
	07/25/01	45.43	50.37	--	--	--	--	--	--	--	--	ND	ND	ND	ND	7.92	<0.00100	0.0620	--	--
	10/16/01	44.59	51.21	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.8	<0.00100	0.0108	--	--
	01/09/02	40.17	55.63	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.21	<0.00100	0.00139	--	--
	04/04/02	43.32	52.48	--	--	--	--	--	--	--	--	ND	8.58	2.87	15.4	45.5	--	--	--	--
	07/08/02	39.53	56.27	--	--	--	--	--	--	--	--	ND	22.7	1.83	9.59	22.2	--	--	--	--
	10/30/02	44.53	51.27	--	--	--	--	--	--	--	--	ND	1,090	ND	35	76.6	--	--	--	--
	01/17/03	42.32	53.48	--	--	--	--	--	--	--	--	ND	2,960	ND	27.2	84.8	--	--	--	--
	04/04/03	39.53	56.27	--	--	--	--	--	--	--	--	ND	779	ND	12.2	48.2	--	--	--	--
	07/02/03	41.90	53.90	--	--	--	--	--	--	--	--	ND	397	2.38	11.6	58.2	--	--	--	--
	01/28/04	40.20	55.60	--	--	--	--	--	--	--	--	ND	289	ND	11.2	63.9	--	--	--	--
	04/26/04	42.05	53.75	--	--	--	--	--	--	--	--	ND	362	1.62	6.86	49.6	--	--	--	2.11
	07/23/04	43.61	52.19	--	--	--	--	--	--	--	--	ND	86.1	1.7	4.97	48.4	--	--	--	--
	11/05/04	43.49	52.31	--	--	--	--	--	--	--	--	ND	59.8	2.13	6.14	45.5	--	--	--	3.18
	02/04/05	42.96	52.84	--	--	--	--	--	--	--	--	<1.0	169	2.14	5.15	46.8	--	--	--	--
	05/10/05	40.29	55.51	--	--	--	--	--	--	--	--	<5.0	4.86	ND	ND	4.91	--	--	--	--
	08/08/05	43.00	52.80	--	--	--	--	--	--	--	--	<1.0	139	1.85	5.3	44.8	--	--	--	1.94
	12/13/05	42.97	52.83	--	--	--	--	--	--	--	--	<2.0	110	0.9	2.0	17	--	--	--	6.07
	03/03/06	40.02	55.78	--	--	--	--	--	--	--	--	<2.0	70	<0.8	2.0	11	--	--	--	4.89
	06/29/06	39.63	56.17	--	--	--	--	--	--	--	--	<2.0	110	<0.8	3.0	23	--	--	--	4.90
	09/08/06	43.66	52.14	--	--	--	--	--	--	--	--	<2.0	270	1	5.0	35	--	--	--	4.30
	12/01/06	40.65	55.15	--	--	--	--	--	--	--	--	<2.0	160	<0.8	2.0	18	--	--	--	3.80
	03/01/07	40.90	54.90	--	--	--	--	--	--	--	--	<2.0	180	<0.8	2.0	25	--	--	--	4.65
	06/28/07	42.48	53.32	--	--	--	--	--	--	--	--	<2	2	<0.8	2	33	--	--	--	3.5
	02/01/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/20/08	41.34	54.46	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	1	11	--	--	--	--
	06/19/08	35.66	60.14	--	--	--	<0.5	<0.7	<0.8	<0.8	0.9	<2	<0.5	<0.8	<1	9	--	--	--	--
	09/30/08	44.15	51.65	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.2	15	--	--	--	--
	11/07/08	43.94	51.86	--	--	--	<0.5	<0.7	<0.20	<0.8	<0.8	<2	<0.5	<0.8	1	16	--	--	--	--
	02/19/09	43.54	52.26	--	--	--	<0.12	<0.21	<0.20	<0.27	0.19	<1.0	0.89	0.33	0.98	26	--	--	--	--
	04/21/09	40.65	55.15	--	--	--	<0.12	<0.21	<0.20	<0.27	1.6	<1.0	0.32 J	<0.20	0.88 J	11.7	--	--	--	--



TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
76 PRODUCTS FACILITY No. 351386
1300 W 12th Street, Vancouver, Washington
Concentrations reported in µg/L unless otherwise noted

Well ID TOC Elevation (ft)	Sample Date	Depth to Water (ft)	GW Elevation (ft)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Methylene Chloride	MTBE	1,1,1-TCA	TCE	PCE	Dissolved Lead (mg/L)	Total Lead (mg/L)	Ethanol	Dissolved Oxygen (mg/L)
MW-4 (cont)	07/30/09	42.85	52.95	--	--	--	<0.12	<0.21	<0.20	<0.27	1.0	<1.0	0.40 J	0.29 J	1.2	19.0	--	--	--	--
	10/27/09	44.61	51.19	--	--	--	<0.12	<0.21	<0.20	<0.42	0.99 J	<1.0	0.31 J	<0.15	1.0	16.6	--	--	--	--
	03/12/10	43.02	52.78	--	--	--	<0.12	<0.21	<0.20	<0.42	0.79 J	<0.26	0.33 J	0.26 J	1.0	13.9	--	--	--	--
	06/04/10	38.90	56.90	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	2.60	<4.0	<1.0	<1.0	<1.0	5.2	--	--	--	--
	09/02/10	44.65	51.15	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	11.6	--	--	--	--
	12/01/10	42.00	53.80	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	2.3	<4.0	<1.0	<1.0	<1.0	7.1	--	--	--	--
	03/08/11	39.16	56.64	--	130	<377	<1.0	<1.0	<1.0	<3.0	1.8	<4.0	<1.0	<1.0	<1.0	8.6	--	--	--	--
	06/16/11	31.25	64.55	--	<83.3	<417	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	3.9	--	--	--	--
	09/26/11	43.63	52.17	99	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	14	--	--	<50	--
	12/19/11	43.82	51.98	--	330	700	<0.5	<0.5	<0.5	<1	<0.8	<2	<0.5	<0.8	<1	11	--	--	<50	--
	03/23/12	27.33	68.47	--	80	290	<0.5	<0.5	<0.5	<1	2	<2	<0.5	<0.8	<1	4	--	--	<50	--
MW-5 96.47	06/18/12	39.16	56.64	--	100	330	<0.5	<0.5	<0.5	<1	2	<2	<0.5	<0.8	<1	5	--	--	<50	--
	08/30/00	44.18	52.29	--	--	--	--	--	--	--	--	ND	ND	2.0	1.56	25.6	--	--	--	--
	10/04/00	44.72	51.75	--	--	--	--	--	--	--	--	ND	ND	ND	1.73	16.9	<0.00100	--	--	--
	01/15/01	43.35	53.12	--	--	--	--	--	--	--	--	ND	ND	ND	ND	7.37	--	--	--	--
	04/23/01	44.52	51.95	--	--	--	--	--	--	--	--	ND	ND	ND	ND	9.21	<0.00100	0.00174	--	--
	07/25/01	46.11	50.36	--	--	--	--	--	--	--	--	ND	ND	ND	1.42	22.9	<0.00100	0.0123	--	--
	10/16/01	45.28	51.19	--	--	--	--	--	--	--	--	ND	ND	ND	1.29	18	<0.00100	0.00602	--	--
	01/09/02	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/04/02	42.95	53.52	--	--	--	--	--	--	--	--	ND	ND	2.78	15.1	105	--	--	--	--
MW-5A 96.46	07/08/02	40.22	56.25	--	--	--	--	--	--	--	--	ND	ND	1.48	5.6	57.6	--	--	--	--
	10/30/02	45.15	51.32	--	--	--	--	--	--	--	--	ND	1.37	2.75	14.8	101	--	--	--	--
	01/17/03	42.93	53.53	--	--	--	--	--	--	--	--	ND	15.1	2.29	10.3	79	--	--	--	--
	04/04/03	40.18	56.28	--	--	--	--	--	--	--	--	ND	67	ND	1.91	17.1	--	--	--	--
	07/02/03	42.55	53.91	--	--	--	--	--	--	--	--	ND	35.7	2.2	9.8	78.1	--	--	--	--
	01/28/04	40.83	55.63	--	--	--	--	--	--	--	--	ND	449	ND	ND	31.4	--	--	--	--
	04/26/04	42.68	53.78	--	--	--	--	--	--	--	--	ND	164	3.9	7.43	68	--	--	--	2.89
	07/23/04	44.21	52.25	--	--	--	--	--	--	--	--	ND	45	5.07	9.93	79.3	--	--	--	--
	11/05/04	44.06	52.40	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.98	--	--	--	4.89
	02/04/05	43.60	52.86	--	--	--	--	--	--	--	--	<1.0	26	2.71	5.47	58.8	--	--	--	--
	05/10/05	40.94	55.52	--	--	--	--	--	--	--	--	<5.0	214	ND	ND	21.2	--	--	--	--
	08/08/05	43.64	52.82	--	--	--	--	--	--	--	--	<1.0	89	2.3	5.8	59.4	--	--	--	4.62
	12/13/05	43.60	52.86	--	--	--	--	--	--	--	--	<2.0	95	1.0	3.0	26	--	--	--	5.82
	03/03/06	40.71	55.75	--	--	--	--	--	--	--	--	<2.0	110	0.8	2.0	25	--	--	--	3.09
	06/29/06	40.25	56.21	--	--	--	--	--	--	--	--	<2.0	130	1.0	3.0	37	--	--	--	4.15
	09/08/06	44.30	52.16	--	--	--	--	--	--	--	--	<2.0	16	2.0	6.0	66	--	--	--	3.30
	12/01/06	41.29	55.17	--	--	--	--	--	--	--	--	<2.0	12	<0.8	2.0	25	--	--	--	4.10
	03/01/07	41.54	54.92	--	--	--	--	--	--	--	--	<2.0	26	0.9	2.0	38	--	--	--	5.50
	06/28/07	43.12	53.34	--	--	--	--	--	--	--	--	<2	1	<0.8	3	40	--	--	--	3.5
	02/01/08	42.19	54.27	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	1	32	--	--	--	--
	03/20/08	42.00	54.46	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	2	28	--	--	--	--
	06/19/08	36.25	60.21	--	--	--	<0.5	<0.7	<0.8	<0.8	1	<2	<0.5	<0.8	<1	9	--	--	--	--
	09/30/08	44.80	51.66	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.5	26	--	--	--	--



TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
76 PRODUCTS FACILITY No. 351386
1300 W 12th Street, Vancouver, Washington
Concentrations reported in µg/L unless otherwise noted

Well ID TOC Elevation (ft)	Sample Date	Depth to Water (ft)	GW Elevation (ft)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Methylene Chloride	MTBE	1,1,1-TCA	TCE	PCE	Dissolved Lead (mg/L)	Total Lead (mg/L)	Ethanol	Dissolved Oxygen (mg/L)
MW-5A (cont)	11/07/08	44.62	51.84	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	1.0	26	--	--	--	--
	02/19/09	44.15	52.31	--	--	--	<0.12	<0.21	<0.20	<0.27	3.1	<1.0	0.23	0.26	0.97	26	--	--	--	--
	04/21/09	41.31	55.15	--	--	--	0.26 J	0.90 J	0.54 J	0.99 J	1.8	<1.0	0.22 J	<0.20	0.65 J	14.1	--	--	--	--
	07/30/09	43.50	52.96	--	--	--	<0.12	<0.21	<0.20	<0.27	1.8	<1.0	0.28 J	0.28 J	1.0	23.5	--	--	--	--
	10/27/09	45.22	51.24	--	--	--	<0.12	<0.21	<0.20	<0.42	0.73 J	<1.0	<0.16	<0.20	0.46 J	10.4	--	--	--	--
	03/12/10	43.65	52.81	--	--	--	<0.12	<0.21	<0.20	<0.42	3.1	<0.26	0.16 J	<0.20	0.66 J	11.6	--	--	--	--
	06/04/10	39.59	56.87	--	<77.7	<388	<1.0	<1.0	<1.0	<3.0	1.6	<4.0	<1.0	<1.0	<1.0	7.3	--	--	--	--
	09/02/10	45.29	51.17	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	1.9	<4.0	<1.0	<1.0	<1.0	13.0	--	--	--	--
	12/01/10	42.59	53.87	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	7.4	--	--	--	--
	03/08/11	39.81	56.65	--	118	<377	<1.0	<1.0	<1.0	<3.0	1.6	<4.0	<1.0	<1.0	<1.0	9.2	--	--	--	--
	06/16/11	30.62	65.84	--	<81.6	<408	<1.0	<1.0	<1.0	<3.0	2.3	<4.0	<1.0	<1.0	<1.0	3.0	--	--	--	--
	09/26/11	44.30	52.16	58	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	20	--	--	<50	--
	12/19/11	44.37	52.09	--	58	<67	<0.5	<0.5	<0.5	<1	<0.8	<2	<0.5	<0.8	<1	10	--	--	<50	--
	03/23/12	27.98	68.48	--	160	380	<0.5	<0.5	<0.5	<1	1	<2	<0.5	<0.8	<1	3	--	--	<50	--
	06/18/12	37.57	58.89	--	180	720	<0.5	<0.5	<0.5	<1	2	<2	<0.5	<0.8	<1	7	--	--	<50	--
MW-6 110.19	08/30/00	57.87	52.32	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--
	10/04/00	58.42	51.77	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	<0.00100	--	--	--
	01/15/01	57.04	53.15	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--
	04/23/01	58.18	52.01	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	<0.00100	0.00347	--	--
	07/25/01	59.80	50.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/16/01	59.02	51.17	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--
	01/09/02	54.58	55.61	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	<0.00830	0.00714	--	--
	04/04/02	56.64	53.55	--	--	--	--	--	--	--	--	ND	ND	ND	ND	5.84	<0.00100	0.00461	--	--
	07/08/02	53.90	56.29	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.8	--	--	--	--
	10/30/02	58.90	51.29	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.26	--	--	--	--
	01/17/03	56.69	53.50	--	--	--	--	--	--	--	--	ND	ND	ND	ND	4.56	--	--	--	--
	04/04/03	53.90	56.29	--	--	--	--	--	--	--	--	ND	1.17	ND	ND	2.64	--	--	--	--
	07/02/03	56.24	53.95	--	--	--	--	--	--	--	--	ND	ND	ND	ND	4.26	--	--	--	--
	01/28/04	54.56	55.63	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.39	--	--	--	--
	04/26/04	56.38	53.81	--	--	--	--	--	--	--	--	ND	ND	ND	ND	14.9	--	--	--	1.83
	07/23/04	58.01	52.18	--	--	--	--	--	--	--	--	ND	ND	ND	ND	7.26	--	--	--	--
	11/05/04	57.76	52.43	--	--	--	--	--	--	--	--	ND	332	ND	3.05	17.7	--	--	--	3.08
	02/04/05	57.34	52.85	--	--	--	--	--	--	--	--	<1.0	ND	ND	ND	8.55	--	--	--	--
	05/10/05	54.70	55.49	--	--	--	--	--	--	--	--	<5.0	ND	ND	ND	1.53	--	--	--	--
	08/08/05	57.40	52.79	--	--	--	--	--	--	--	--	<1.0	<1	<200	<5.0	5.48	--	--	--	3.71
	12/13/05	57.30	52.89	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	2.0	--	--	--	7.4
	03/03/06	54.45	55.74	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	6.0	--	--	--	6.48
	06/29/06	53.94	56.25	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	11	--	--	--	6.95
	09/08/06	58.09	52.10	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	3.0	--	--	--	7.10
	12/01/06	55.00	55.19	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	2.0	--	--	--	6.90
	03/01/07	55.25	54.94	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	6.0	--	--	--	7.75
	06/28/07	56.77	53.42	--	--	--	--	--	--	--	--	<2	<0.5	<0.8	<1	2	--	--	--	6.70
	02/01/08	55.90	54.29	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	4	--	--	--	--



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76 PRODUCTS FACILITY No. 351386
1300 W 12th Street, Vancouver, Washington
Concentrations reported in µg/L unless otherwise noted

Well ID TOC Elevation (ft)	Sample Date	Depth to Water (ft)	GW Elevation (ft)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Methylene Chloride	MTBE	1,1,1-TCA	TCE	PCE	Dissolved Lead (mg/L)	Total Lead (mg/L)	Ethanol	Dissolved Oxygen (mg/L)
MW-6 (cont)	03/20/08	55.75	54.44	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	3	--	--	--	--
	06/19/08	50.07	60.12	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	<1	1	--	--	--	--
	09/30/08	58.60	51.59	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--
	11/07/08	58.30	51.89	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	<1	0.9	--	--	--	--
	02/19/09	57.87	52.32	--	--	--	<0.12	<0.21	<0.20	<0.27	0.34	<1.0	<0.16	<0.20	<0.22	1.5	--	--	--	--
	04/21/09	55.04	55.15	--	--	--	0.17 J	0.82 J	0.32 J	0.61 J	<0.15	<1.0	<0.16	<0.20	<0.22	3.4	--	--	--	--
	07/30/09	57.25	52.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/27/09	58.95	51.24	--	--	--	<0.12	<0.21	<0.20	<0.42	0.20 J	<1.0	<0.16	<0.20	<0.22	0.70 J	--	--	--	--
	03/12/10	57.40	52.79	--	--	--	<0.12	<0.21	<0.20	<0.42	<0.15	<0.26	<0.16	<0.20	<0.22	2.0	--	--	--	--
	06/04/10	53.33	56.86	--	<80.0	<400	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	1.6	--	--	--	--
	09/02/10	59.01	51.18	--	129	460	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	1.1	--	--	--	--
	12/01/10	56.39	53.80	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--
	03/08/11	53.53	56.66	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	1.1	--	--	--	--
	06/16/11	45.00	65.19	--	<83.3	<417	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--
	09/26/11	58.01	52.18	110	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	0.9	--	--	<50	--
	12/19/11	58.09	52.10	--	<29	<67	<0.5	<0.5	<0.5	<1	<0.8	<2	<0.5	<0.8	<1	<0.8	--	--	<50	--
	03/23/12	51.73	58.46	--	190	750	<0.5	<0.5	<0.5	<1	<0.8	<2	<0.5	<0.8	<1	<0.8	--	--	<50	--
	06/18/12	51.33	58.86	--	68	390	<0.5	<0.5	<0.5	<1	<0.8	<2	<0.5	<0.8	<1	2	--	--	<50	--
MTCA Method A Cleanup Levels:				1,000/800 ^a	500	500	5	1,000	700	1,000	NE	5	20	200	5	5	15	15	NE	NA

NOTES:

Analytical results in bold font indicate concentrations exceed MTCA Method A cleanup levels.
Groundwater monitoring data, top of casing elevations, and laboratory analytical results prior to September 26, 2011 provided by STANTEC Consulting Corporation.
TOC referenced to a site datum with an assumed elevation of 100.00 feet (National Geodetic Vartical Datum).
a MTCA Method A cleanup levels for TPH-G are 1,000 µg/L when no benzene is present and 800 µg/L when benzene is present.

ABBREVIATIONS:

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes
ft = Feet
GW = Groundwater
J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
mg/L = Milligrams per liter
MTBE = Methyl Tertiary Butyl Ether
MTCA = Model Toxics Control Act
NE = Not Established
1,1,1-TCA = 1,1,1-Trichloroethane
PCE = Tetrachloroethene
TCE = Trichloroethene
TPH = Total Petroleum Hydrocarbons
TPH-D = TPH as Diesel-range organics
TPH-G = TPH as Gasoline-range organics
TPH-O = TPH as Heavy Oil-range organics
USEPA = United States Environmental Protection Agency
µg/L = Micrograms per liter
-- = Not measured/Not analyzed
< = Less than the stated laboratory reporting limit

ANALYTICAL METHOD:

TPH-G analyzed by Northwest Method NWTPH-Gx.
TPH-D and TPH-O analyzed by Northwest Method NWTPH-Dx.
BTEX analyzed by USEPA Method 8260B.
Methylene Chloride analyzed by USEPA Method 8260B.
MTBE analyzed by USEPA Method 8260B.
1,1,1-TCA analyzed by USEPA Method 8260B.
TCE analyzed by USEPA Method 8260B.
PCE analyzed by USEPA Method 8260B.
Total and dissolved lead analyzed by USEPA Method 200 or 6000/7000 Series.
Ethanol analyzed by USEPA Method 8260B.



Attachment A:
Groundwater Monitoring and Sampling Data Package

WELL GAUGING DATA

Project # 120615-LB1 Date 6/18/12 Client CHEVRON

Site 1300 W 12TH ST, VANCOUVER, WA

[illegible]

LOW FLOW WELL MONITORING DATA SHEET

Project #: 120010-LB1	Client: CHEVRON
Sampler: LB	Gauging Date: 6/18/12
Well I.D.: MW-1	Well Diameter (in.): 3 4 6 8
Total Well Depth (ft.): 48.42	Depth to Water (ft.): 38.27
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 536

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0953 Flow Rate: 200 mL/MIN Pump Depth: 43.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0956	16.8	6.40	187	16	1.12	37.8	600	38.30
0959	16.7	6.46	168	15	1.10	30.6	1200	38.32
1002	16.7	6.51	191	14	1.07	28.1	1800	38.33
1005	16.4	6.52	192	14	1.06	27.3	2400	38.35
1008	16.3	6.53	193	13	1.05	26.4	3000	38.38

Did well dewater? Yes ☒	Amount actually evacuated: 3L
Sampling Time: 1009	Sampling Date: 6/18/12
Sample I.D.: MW-1	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE COL
Equipment Blank I.D.: @	Duplicate I.D.: Time

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

LOW FLOW WELL MONITORING DATA SHEET

Project #: 120018-LB1	Client: CHEVRON
Sampler: LB	Gauging Date: 6/18/12
Well I.D.: MW-2	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 49.16	Depth to Water (ft.): 38.09
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1024 Flow Rate: 200 mL/MIN Pump Depth: 44'

Time	Temp. (C or °F)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or L)	Depth to Water (ft.)
1027	15.2	6.41	210	12	1.34	82.1	600	38.11
1030	14.3	6.46	214	10	1.16	80.4	1200	38.14
1033	14.2	6.48	215	8	1.13	74.3	1800	38.16
1036	14.1	6.50	216	9	1.10	73.2	2400	38.17
1039	14.2	6.51	216	9	1.08	71.8	3000	38.17
1042	14.3	6.52	216	10	1.07	70.6	3600	38.19

Did well dewater? Yes <u>NO</u>	Amount actually evacuated: 3.6L
Sampling Time: 1043	Sampling Date: 6/18/12
Sample I.D.: MW-2	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE LOG
Equipment Blank I.D.: @	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 120619-LB	Client: CHEVRON
Sampler: LB	Gauging Date: 6/18/12
Well I.D.: MW-4	Well Diameter (in.): 3 4 6 8
Total Well Depth (ft.): 49.18	Depth to Water (ft.): 39.16
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PYC Grade	Flow Cell Type: YSL 53C

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1122 Flow Rate: 200 mL/min Pump Depth: 44.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1125	15.0	6.78	250	16	0.98	83.6	600	39.18
1128	15.3	6.71	226	15	0.80	71.2	1200	39.21
1131	15.2	6.68	219	15	0.71	62.8	1800	39.23
1134	15.3	6.64	218	13	0.70	55.1	2400	39.25
1137	15.3	6.63	218	11	0.68	53.8	3000	39.26
1140	15.3	6.63	217	10	0.67	51.9	3600	39.27

Did well dewater? Yes ☒ No ☐	Amount actually evacuated: 3.6
Sampling Time: 1141	Sampling Date: 6/18/12
Sample I.D.: MW-4	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE COL
Equipment Blank I.D.: @	Duplicate I.D.:

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

LOW FLOW WELL MONITORING DATA SHEET

Project #: 1206 18-LB1	Client: CHEVRON
Sampler: LB	Gauging Date: 6/18/12
Well I.D.: MW-5A	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 49.83	Depth to Water (ft.): 37.57
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: ELC Grade	Flow Cell Type: YSE 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1052 Flow Rate: 200 mL/MIN Pump Depth: 44'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1055	14.6	6.84	255	10	1.15	92	600	37.61
1056	15.2	6.76	266	8	1.03	87	1200	37.62
1101	15.3	6.71	270	7	1.01	72	1800	37.64
1104	15.3	6.76	271	7	0.99	70	2400	37.65
1107	15.4	6.72	271	8	0.98	69	3000	37.65

Did well dewater? Yes ☒ No ☐	Amount actually evacuated: 31
Sampling Time: 1108	Sampling Date: 6/18/12
Sample I.D.: MW-5A	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE COL
Equipment Blank I.D.: @	Duplicate I.D.:

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

LOW FLOW WELL MONITORING DATA SHEET

Project #: 120618-LB1	Client: CHEVRON
Sampler: LB	Gauging Date: 6/18/12
Well I.D.: MW-6	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 64.51	Depth to Water (ft.): 51.33
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSE SSC

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other

Start Purge Time: 0915 Flow Rate: 200 mL/min Pump Depth: 58'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or L)	Depth to Water (ft.)
0918	15.0	6.54	242	10	1.68	47.6	600	51.38
0921	15.3	6.63	301	9	1.42	40.6	1200	51.41
0924	15.4	6.71	306	9	1.38	36.3	1800	51.43
0927	15.4	6.72	307	8	1.36	35.1	2400	51.45
0930	15.5	6.72	307	8	1.35	33.9	3000	51.46

Did well dewater? Yes ☒ No	Amount actually evacuated: 3 L
Sampling Time: 0931	Sampling Date: 6/18/12
Sample I.D.: MW-6	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SOE COL
Equipment Blank I.D.: @	Duplicate I.D.:

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

CHAIN OF CUSTODY FORM

Chevron Environmental Management Company ■ 6001 Bollinger Canyon Road ■ San Ramon, CA 94583-2324 ■ **COC 1 of 1**

Chevron Site Number: 35-1386
Program Designation: CMP
Site Address (street, city, state / county): 1300 W. 12th St.
Vancouver, WA
Chevron PM: _____
Chevron PM Phone No.: _____
☐ Retail and Terminal Business Unit (RTBU) Job
☐ Construction/Retail Job

Address: 20415 72nd Ave South, Suite 250, Kent WA 98032
Consultant Contact: Ron Santos
Consultant Phone No. (208) 429-3772
Consultant Project No. 120616-121
Sampling Company: Blaine Tech Services
Sampled By (Print): Lee Bales
Sampler Signature: _____

Charge Code: NWRTB 00SITE NUMBER-0-OML
WBS ELEMENTS: _____
SITE ASSESSMENT: A1L REMEDIATION IMPLEMENTATION: R5L
SITE MONITORING: OML OPERATION MAINTENANCE & MONITORING: M1L

Lancaster Laboratories
☒ Lancaster, PA
Lab Contact: Megan Moeller
2425 New Holland Pike,
Lancaster, PA 17601
Phone No: (717) 656-2300

Other Lab _____
Temp. Blank Check Time _____ Temp. _____

SAMPLE ID				Sample Time	# of Containers	Container Type	TPH-ORO w/ SILICA GEL CLEANUP (97-602M) (NWTPH-DX w/ SGC)	TPH-ORO w/ SILICA GEL CLEANUP (97-602M) (NWTPH-DX w/ SGC)	TPH-HRO w/ SILICA GEL CLEANUP (97-602M) (NWTPH-DX w/ SGC)	8260B FULL LISTED EDCB TBAO TAMEO EDBO ETHANOLX BTXEX MTBE	PAH'S ☐ CPAH'S ☐ 8270 SIM	TPH-G (NWTPH-GX)	TOTAL LEAD (6020)	DISSOLVED LEAD (6020)	TPH-D AND TPH-0 BY (NWTPH-DX)	Notes/Comments
Field Point Name	Matrix	Top Depth	Date (yy/mm/dd)													
MN-1	GW	1	12/06/18	1009	5	VGA, Amber	X	X								VOC'S
MN-2	GW	1	12/06/18	1043			X	X								X
MN-4	GW	1	12/06/18	1141			X	X								X
MN-5	GW	1	12/06/18	1108			X	X								X
MN-6	GW	1	12/06/18	0921			X	X								X
GA	GW	1	12/06/18	0900	3	VGA										X

Relinquished By: _____ Date/Time: 6/22/12
Relinquished To: Shaded Via FedEx Company: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____
Relinquished To: _____ Company: _____ Date/Time: _____

Turnaround Time: Standard ☒ 24 Hours ☐ 48 hours ☐ 72 Hours ☐
Other ☐ _____
Sample Integrity: (Check by lab on arrival)
Intact: _____ On Ice: _____ Temp: _____
COC # _____

WELLHEAD INSPECTION FORM

Client: CHEVRON Site: 1300 W 12TH ST VANCOUVER, W/O Date: 6/16/12
Job #: 120618-LB1 Technician: L. BURES Page 1 of 1

[illegible]

NOTES: _____

SOURCE RECORD BILL OF LADING

FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT CHEVRON FACILITIES IN THE STATE OF WASHINGTON OR OREGON. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY EMERALD SERVICES

This Source Record **BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Chevron facility described below:

1300 W. 127th St, Vancouver WA

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-1	1.0		
MW-2	1.5		
MW-3	1.5		
MW-5A	1.0		
MW-6	1.0		
added equip.			
rinse water	5	any other	
		adjustments	
TOTAL GALS. RECOVERED 11		loaded onto BTS vehicle # 88	
BTS event #	120616-L34	time	1230
signature	date 6/18/12		

REC'D AT		time	date
unloaded by			
signature			

Permit To Work

for Chevron EMC Sites

Client: CHEVRONSite Address: 1300 W. 12TH ST, VAN COUVE, WADate 6/19/12Job Number: 120618-LB Technician(s): L. BUREK**Pre-Job Safety Review**

1. JMP reviewed, site restrictions and parking/access issues addressed.

Reviewed: ☒

2. Special Permit Required Task Review

Are there any conditions or tasks that would require:

Yes No

Confined-space entry ☐ ☒Working at height ☐ ☒Lock-out/Tag-out ☐ ☒Excavations greater than 4 feet deep ☐ ☒Excavations within 3 feet of a buried active electrical line or product piping
or within 10 feet of a high pressure gas line. ☐ ☒Use of overhead equipment within 15 feet of an overhead electrical power
line or pole supporting one ☐ ☒Hot work ☐ ☒

If "Yes" was the answer to any of the Special Permit Required Tasks above, the Project Manager will contact the client and arrange to modify the Scope of Work so that the Special Permit Required Tasks are not required to be performed by Blaine Tech Services employees.

3. Is a Traffic Control Permit required for today's work?

Yes No

☐ ☒If so is it in the folder? ☒ ☐Is it current? ☒ ☐Do you understand the Traffic Control Plan and what equipment you will need? ☒ ☐**On site Pre-Job Safety Review**1. Reviewed and signed the site specific HASP. ☒2. Route to hospital understood. ☒3. Reviewed "Groundwater Monitoring Well Sampling General Job Safety Analysis included in the HASP. ☒4. Exceptional circumstances today that are not covered by the HASP, JSA or JMP have been addressed and mitigated. ☒5. Understands procedure to follow, if site circumstances change, to address new site hazards. ☒6. There are no unexpected conditions which would make your task a Special Permit Required Task. If there is, contact your Project Manager. ☒7. All site hazards have been communicated to all necessary onsite personnel during tailgate safety meeting. ☒8. After lunch tailgate safety meeting refresher conducted. ☒

If Checklist Task cannot be completed, explain:

Permit To Work Authority: [Signature]

Name

gm
Title3/19/12
Date842
Time

[illegible]

Attachment B:
Laboratory Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

July 06, 2012

Project: 351386

Submittal Date: 06/23/2012
Group Number: 1317948
PO Number: 0015093283
Release Number: INGLIS
State of Sample Origin: WAClient Sample DescriptionMW-1 Water Sample
MW-2 Water Sample
MW-4 Water Sample
MW-5 Water Sample
MW-6 Water Sample
QA Water SampleLancaster Labs (LLI) #6699758
6699759
6699760
6699761
6699762
6699763

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

ELECTRONIC SAIC
COPY TO
ELECTRONIC Blaine Tech Services
COPY TO
ELECTRONIC SAIC
COPY TO

Attn: Ron Santos

Attn: Alex Stack

Attn: Kinga Kozlowska

Respectfully Submitted,



Jill M. Parker
Senior Specialist

(717) 556-7262

Sample Description: MW-1 Water Sample
Facility# 351386
1300 W. 12th St - Vancouver, WA

LLI Sample # WW 6699758
LLI Group # 1317948
Account # 11255

Project Name: 351386

Collected: 06/18/2012 10:09 by LB

Chevron

L4310

Submitted: 06/23/2012 09:30

6001 Bollinger Canyon Road

Reported: 07/06/2012 13:44

San Ramon CA 94583

12V01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10905	Benzene	71-43-2	N.D.	0.5	1
10905	Chloroform	67-66-3	N.D.	0.8	1
10905	Ethanol	64-17-5	N.D.	50	1
10905	Ethylbenzene	100-41-4	N.D.	0.5	1
10905	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10905	Methylene Chloride	75-09-2	N.D.	2	1
10905	Tetrachloroethene	127-18-4	2	0.8	1
10905	Toluene	108-88-3	N.D.	0.5	1
10905	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10905	Trichloroethene	79-01-6	N.D.	1	1
10905	m+p-Xylene	179601-23-1	N.D.	0.5	1
10905	o-Xylene	95-47-6	N.D.	0.5	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: Since the result was high and chloroform was not detected in the sample, the data is reported.

GC Petroleum	ECY 97-602 NWT PH-Dx	ug/l	ug/l	
Hydrocarbons w/Si	modified			
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66

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
10905	VOCs by 8260B(Extended) - Water	SW-846 8260B	1	W121841AA	07/02/2012 19:55	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W121841AA	07/02/2012 19:55	Kevin A Sposito	1
02211	NWT PH-Dx water w/Si Gel	ECY 97-602 NWT PH-Dx modified	1	121790027A	06/29/2012 22:05	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWT PH-Dx 06/97	1	121790027A	06/28/2012 09:10	Cynthia J Salvatori	1

Sample Description: MW-2 Water Sample
Facility# 351386
1300 W. 12th St - Vancouver, WA

LLI Sample # WW 6699759
LLI Group # 1317948
Account # 11255

Project Name: 351386

Collected: 06/18/2012 10:43 by LB

Chevron

L4310

Submitted: 06/23/2012 09:30

6001 Bollinger Canyon Road

Reported: 07/06/2012 13:44

San Ramon CA 94583

12V02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10905	Benzene	71-43-2	N.D.	0.5	1
10905	Chloroform	67-66-3	4	0.8	1
10905	Ethanol	64-17-5	N.D.	50	1
10905	Ethylbenzene	100-41-4	N.D.	0.5	1
10905	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10905	Methylene Chloride	75-09-2	N.D.	2	1
10905	Tetrachloroethene	127-18-4	2	0.8	1
10905	Toluene	108-88-3	N.D.	0.5	1
10905	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10905	Trichloroethene	79-01-6	N.D.	1	1
10905	m+p-Xylene	179601-23-1	N.D.	0.5	1
10905	o-Xylene	95-47-6	N.D.	0.5	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: Since the result was high and chloroform was detected in the sample the result may be biased high, the data is reported.

GC Petroleum	ECY 97-602 NWTPH-Dx	ug/l	ug/l	
Hydrocarbons w/Si	modified			
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66

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
10905	VOCs by 8260B(Extended) - Water	SW-846 8260B	1	W121841AA	07/02/2012 20:18	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W121841AA	07/02/2012 20:18	Kevin A Sposito	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	121790027A	06/29/2012 22:27	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	121790027A	06/28/2012 09:10	Cynthia J Salvatori	1

Sample Description: MW-4 Water Sample
Facility# 351386
1300 W. 12th St - Vancouver, WA

LLI Sample # WW 6699760
LLI Group # 1317948
Account # 11255

Project Name: 351386

Collected: 06/18/2012 11:41 by LB

Chevron

L4310

Submitted: 06/23/2012 09:30

6001 Bollinger Canyon Road

Reported: 07/06/2012 13:44

San Ramon CA 94583

12V04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10905	Benzene	71-43-2	N.D.	0.5	1
10905	Chloroform	67-66-3	2	0.8	1
10905	Ethanol	64-17-5	N.D.	50	1
10905	Ethylbenzene	100-41-4	N.D.	0.5	1
10905	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10905	Methylene Chloride	75-09-2	N.D.	2	1
10905	Tetrachloroethene	127-18-4	5	0.8	1
10905	Toluene	108-88-3	N.D.	0.5	1
10905	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10905	Trichloroethene	79-01-6	N.D.	1	1
10905	m+p-Xylene	179601-23-1	N.D.	0.5	1
10905	o-Xylene	95-47-6	N.D.	0.5	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: Since the result was high and chloroform was detected in the sample the result may be biased high, the data is reported.

GC Petroleum	ECY 97-602 NWTPH-Dx	ug/l	ug/l	
Hydrocarbons w/Si	modified			
02211	DRO C12-C24 w/Si Gel	n.a.	100	29
02211	HRO C24-C40 w/Si Gel	n.a.	330	67

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
10905	VOCs by 8260B(Extended) - Water	SW-846 8260B	1	W121841AA	07/02/2012 20:42	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W121841AA	07/02/2012 20:42	Kevin A Sposito	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	121790027A	07/02/2012 11:45	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	121790027A	06/28/2012 09:10	Cynthia J Salvatori	1

Sample Description: MW-5 Water Sample
Facility# 351386
1300 W. 12th St - Vancouver, WA

LLI Sample # WW 6699761
LLI Group # 1317948
Account # 11255

Project Name: 351386

Collected: 06/18/2012 11:08 by LB

Chevron

L4310

Submitted: 06/23/2012 09:30

6001 Bollinger Canyon Road

Reported: 07/06/2012 13:44

San Ramon CA 94583

12V05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10905	Benzene	71-43-2	N.D.	0.5	1
10905	Chloroform	67-66-3	2	0.8	1
10905	Ethanol	64-17-5	N.D.	50	1
10905	Ethylbenzene	100-41-4	N.D.	0.5	1
10905	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10905	Methylene Chloride	75-09-2	N.D.	2	1
10905	Tetrachloroethene	127-18-4	7	0.8	1
10905	Toluene	108-88-3	N.D.	0.5	1
10905	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10905	Trichloroethene	79-01-6	N.D.	1	1
10905	m+p-Xylene	179601-23-1	N.D.	0.5	1
10905	o-Xylene	95-47-6	N.D.	0.5	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: Since the result was high and chloroform was detected in the sample the result may be biased high, the data is reported.

GC Petroleum	ECY 97-602 NWT PH-Dx	ug/l	ug/l	
Hydrocarbons w/Si	modified			
02211	DRO C12-C24 w/Si Gel	n.a.	180	28
02211	HRO C24-C40 w/Si Gel	n.a.	720	66

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
10905	VOCs by 8260B(Extended) - Water	SW-846 8260B	1	W121841AA	07/02/2012 21:05	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W121841AA	07/02/2012 21:05	Kevin A Sposito	1
02211	NWT PH-Dx water w/Si Gel	ECY 97-602 NWT PH-Dx modified	1	121790027A	07/02/2012 12:08	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWT PH-Dx 06/97	1	121790027A	06/28/2012 09:10	Cynthia J Salvatori	1

Sample Description: MW-6 Water Sample
Facility# 351386
1300 W. 12th St - Vancouver, WA

LLI Sample # WW 6699762
LLI Group # 1317948
Account # 11255

Project Name: 351386

Collected: 06/18/2012 09:31 by LB

Chevron

L4310

Submitted: 06/23/2012 09:30

6001 Bollinger Canyon Road

Reported: 07/06/2012 13:44

San Ramon CA 94583

12V06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10905	Benzene	71-43-2	N.D.	0.5	1
10905	Chloroform	67-66-3	N.D.	0.8	1
10905	Ethanol	64-17-5	N.D.	50	1
10905	Ethylbenzene	100-41-4	N.D.	0.5	1
10905	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10905	Methylene Chloride	75-09-2	N.D.	2	1
10905	Tetrachloroethene	127-18-4	2	0.8	1
10905	Toluene	108-88-3	N.D.	0.5	1
10905	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10905	Trichloroethene	79-01-6	N.D.	1	1
10905	m+p-Xylene	179601-23-1	N.D.	0.5	1
10905	o-Xylene	95-47-6	N.D.	0.5	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: Since the result was high and chloroform was not detected in the sample, the data is reported.

GC Petroleum	ECY 97-602 NWT PH-Dx	ug/l	ug/l	
Hydrocarbons w/Si	modified			
02211	DRO C12-C24 w/Si Gel	n.a.	68	1
02211	HRO C24-C40 w/Si Gel	n.a.	390	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
10905	VOCs by 8260B(Extended) - Water	SW-846 8260B	1	W121841AA	07/02/2012 21:29	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W121841AA	07/02/2012 21:29	Kevin A Sposito	1
02211	NWT PH-Dx water w/Si Gel	ECY 97-602 NWT PH-Dx modified	1	121790027A	07/02/2012 12:31	Christine E Dolman	1
02135	Extraction - DRO Water Special	ECY 97-602 NWT PH-Dx 06/97	1	121790027A	06/28/2012 09:10	Cynthia J Salvatori	1

Sample Description: QA Water Sample
Facility# 351386
1300 W. 12th St - Vancouver, WA

LLI Sample # WW 6699763
LLI Group # 1317948
Account # 11255

Project Name: 351386

Collected: 06/18/2012 09:00

Chevron

Submitted: 06/23/2012 09:30

L4310

Reported: 07/06/2012 13:44

6001 Bollinger Canyon Road
San Ramon CA 94583

12VQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10905	Benzene	71-43-2	N.D.	0.5	1
10905	Chloroform	67-66-3	N.D.	0.8	1
10905	Ethanol	64-17-5	N.D.	50	1
10905	Ethylbenzene	100-41-4	N.D.	0.5	1
10905	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10905	Methylene Chloride	75-09-2	N.D.	2	1
10905	Tetrachloroethene	127-18-4	N.D.	0.8	1
10905	Toluene	108-88-3	N.D.	0.5	1
10905	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10905	Trichloroethene	79-01-6	N.D.	1	1
10905	m+p-Xylene	179601-23-1	N.D.	0.5	1
10905	o-Xylene	95-47-6	N.D.	0.5	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
10905	VOCs by 8260B(Extended) - Water	SW-846 8260B	1	W121822AA	06/30/2012 15:42	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W121822AA	06/30/2012 15:42	Kevin A Sposito	1

Quality Control Summary

Client Name: Chevron

Group Number: 1317948

Reported: 07/06/12 at 01:44 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: W121822AA	Sample number(s): 6699763							
Benzene	N.D.	0.5	ug/l	98		77-121		
Chloroform	N.D.	0.8	ug/l	101		77-122		
Ethanol	N.D.	50.	ug/l	84		54-149		
Ethylbenzene	N.D.	0.5	ug/l	95		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	100		68-121		
Methylene Chloride	N.D.	2.	ug/l	90		80-126		
Tetrachloroethene	N.D.	0.8	ug/l	104		79-120		
Toluene	N.D.	0.5	ug/l	98		79-120		
1,1,1-Trichloroethane	N.D.	0.8	ug/l	111		70-121		
Trichloroethene	N.D.	1.	ug/l	102		80-120		
m+p-Xylene	N.D.	0.5	ug/l	96		77-120		
o-Xylene	N.D.	0.5	ug/l	94		77-120		
Batch number: W121841AA	Sample number(s): 6699758-6699762							
Benzene	N.D.	0.5	ug/l	102	102	77-121	1	30
Chloroform	N.D.	0.8	ug/l	115	114	77-122	0	30
Ethanol	N.D.	50.	ug/l	67	61	54-149	10	30
Ethylbenzene	N.D.	0.5	ug/l	101	103	79-120	2	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	116	115	68-121	0	30
Methylene Chloride	N.D.	2.	ug/l	98	99	80-126	2	30
Tetrachloroethene	N.D.	0.8	ug/l	104	107	79-120	2	30
Toluene	N.D.	0.5	ug/l	99	102	79-120	3	30
1,1,1-Trichloroethane	N.D.	0.8	ug/l	121	121	70-121	1	30
Trichloroethene	N.D.	1.	ug/l	105	108	80-120	3	30
m+p-Xylene	N.D.	0.5	ug/l	97	98	77-120	1	30
o-Xylene	N.D.	0.5	ug/l	95	99	77-120	3	30
Batch number: 121790027A	Sample number(s): 6699758-6699762							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	81	81	50-120	0	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					

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 %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: W121822AA	Sample number(s): 6699763 UNSPK: P696181								
Benzene	106	106	72-134	0	30				
Chloroform	115	114	81-134	1	30				

*- Outside of specification

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

Quality Control Summary

Client Name: Chevron

Group Number: 1317948

Reported: 07/06/12 at 01:44 PM

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>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>
Ethanol	78	76	53-146	3	30				
Ethylbenzene	105	104	71-134	0	30				
Methyl Tertiary Butyl Ether	107	102	72-126	5	30				
Methylene Chloride	100	97	78-133	3	30				
Tetrachloroethene	119	115	80-128	3	30				
Toluene	109	105	80-125	4	30				
1,1,1-Trichloroethane	124	120	74-131	4	30				
Trichloroethene	110	111	88-133	0	30				
m+p-Xylene	105	102	79-125	3	30				
o-Xylene	103	97	79-125	5	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: VOCs by 8260B(Extended) -Water

Batch number: W121822AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6699763	103	101	98	101
Blank	103	96	99	100
LCS	106	99	100	103
MS	107	99	100	104
MSD	105	95	100	103

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

Analysis Name: VOCs by 8260B(Extended) -Water

Batch number: W121841AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6699758	106	103	102	104
6699759	109	105	101	103
6699760	109	101	102	106
6699761	106	102	101	103
6699762	109	100	101	105
Blank	107	103	102	104
LCS	109	100	102	105
LCSD	109	105	102	106

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

Analysis Name: NWTPH-Dx water w/Si Gel

Batch number: 121790027A

Orthoterphenyl

6699758	98
6699759	93
6699760	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

Group Number: 1317948

Reported: 07/06/12 at 01:44 PM

Surrogate Quality Control

6699761	88
6699762	95
Blank	95
LCS	98
LCSD	95

Limits: 50-150

*- Outside of specification

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

ACCT# 11255 Cap # 1317948

Sample # 156699758-63

CHAIN OF CUSTODY FORM

Chevron Environmental Management Company ■ 6001 Bollinger Canyon Road ■ San Ramon, CA 94583-2324

Chevron Site Number: 35-1386

Program Designation: CMP

Site Address (street, city, state / county): 1300 W. 12th St.

Vancouver, WA

Chevron PM:

Chevron PM Phone No.:

- ☐ Retail and Terminal Business Unit (RTBU) Job
☐ Construction/Retail Job

Charge Code:

NWRTB 00SITE NUMBER-0-OML

WBS ELEMENTS:

SITE ASSESSMENT: ATL REMEDIATION IMPLEMENTATION: RSL
SITE MONITORING: OML OPERATION MAINTENANCE & MONITORING: M1L

Chevron Consultant: SMC

Address: 20415 72nd Ave South, Suite 250, Kent WA 98032

Consultant Contact: Ron Santos

Consultant Phone No. (208) 429-3772

Consultant Project No. 120618-191

Sampling Company: Blaine Tech Services

Sampled By (Print): LE Buss

Sampler Signature:

Lancaster Laboratories

☒ Lancaster, PA
Lab Contact: Megan
Moeller
2425 New Holland Pike,
Lancaster, PA 17601
Phone No:
(717) 656-2300

Other Lab

Temp. Blank Check
Time Temp.

SAMPLE ID

Field Point Name

Matrix

Top Depth

Date
(yy/mm/dd)

Sample Time

of Containers

Container Type

TPH-DRO w/ SILICA GEL CLEANUP (97-602M) (NWTPH-Dx w/ SGC)

TPH-ORO w/ SILICA GEL CLEANUP (97-602M) (NWTPH-Dx w/ SGC)

TPH-HRO w/ SILICA GEL CLEANUP (97-602M) (NWTPH-Dx w/ SGC)

8260B FULL LIST ☐ ED ☐ TBA ☐ TAME ☐ EDB ☐
ETHANOL ☒ BTEX ☐ MTBE ☐PAH's ☐ cPAH's ☐ 8270 SIM

TPH-G (NWTPH-Gx)

TOTAL LEAD (6020)

DISSOLVED LEAD (6020)

TPH-D AND TPH-O BY (NWTPH-DX)

VOC's

Special Instructions
*VOC's include only
BTEX, Chloroform,
Methylene Chloride,
MTBE, 1,1,1-TCA,
TCE and PCE.
*Quick SIGEL
Cleanup requested*

Notes/Comments

ANALYSES REQUIRED

Preservation Codes

H = HCL, T = Thiosulfate

N = HNO₃, B = NaOHS = H₂SO₄, O = Other

Relinquished By: [Signature] Company: [Blank] Date/Time: 6/22/12 Relinquished To: Shirley K. Fodor Company: [Blank] Date/Time: [Blank]

Relinquished By: [Blank] Company: [Blank] Date/Time: [Blank] Relinquished To: [Blank] Company: [Blank] Date/Time: [Blank]

Relinquished By: [Blank] Company: [Blank] Date/Time: [Blank] Relinquished To: [Blank] Company: [Blank] Date/Time: [Blank]

Turnaround Time: 24 Hours ☐ 48 hours ☐ 72 Hours ☐

Intact: ☒ Office: [Signature] Temp: 10.2m

COC # [Blank]

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		
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.		

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
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.

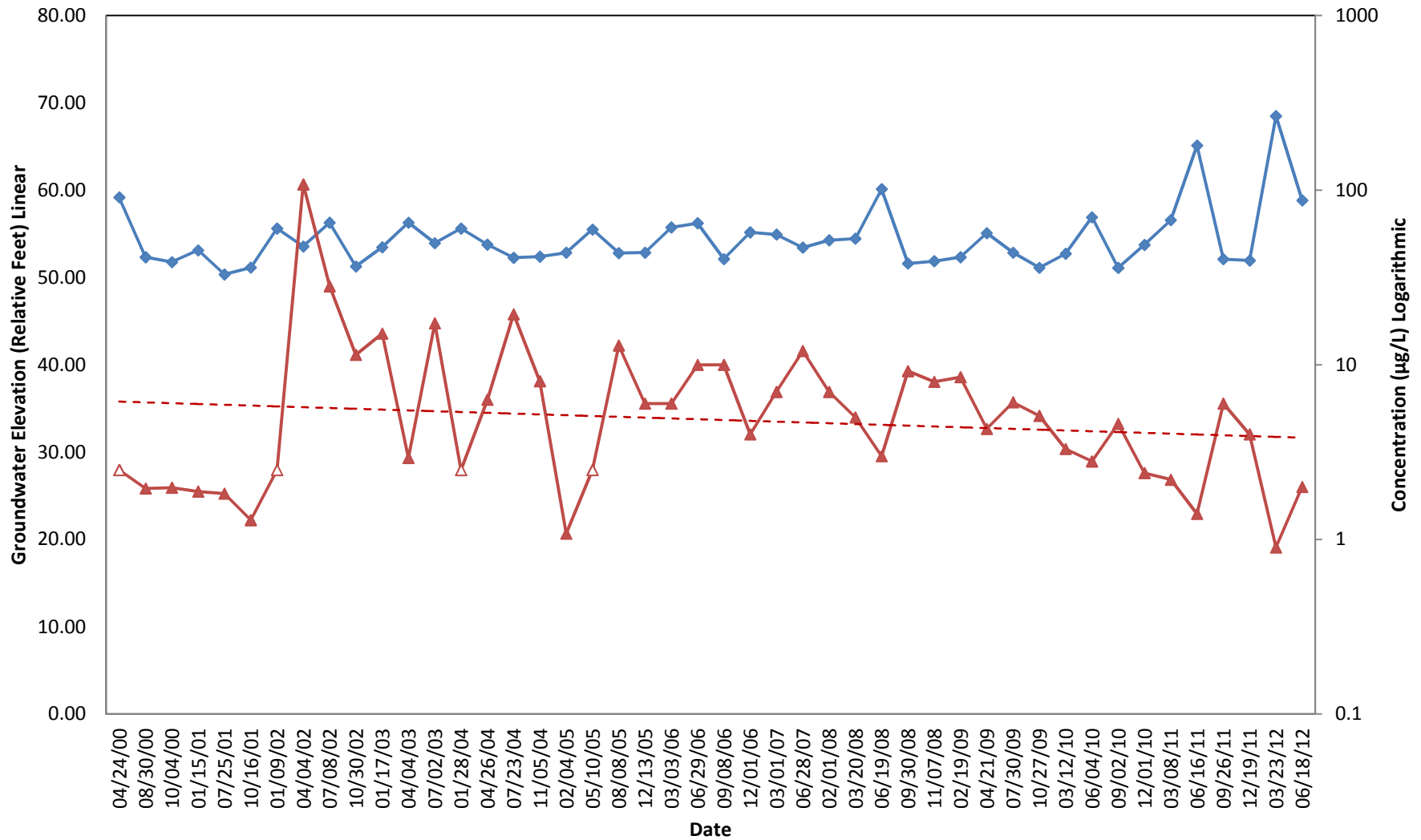
Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have 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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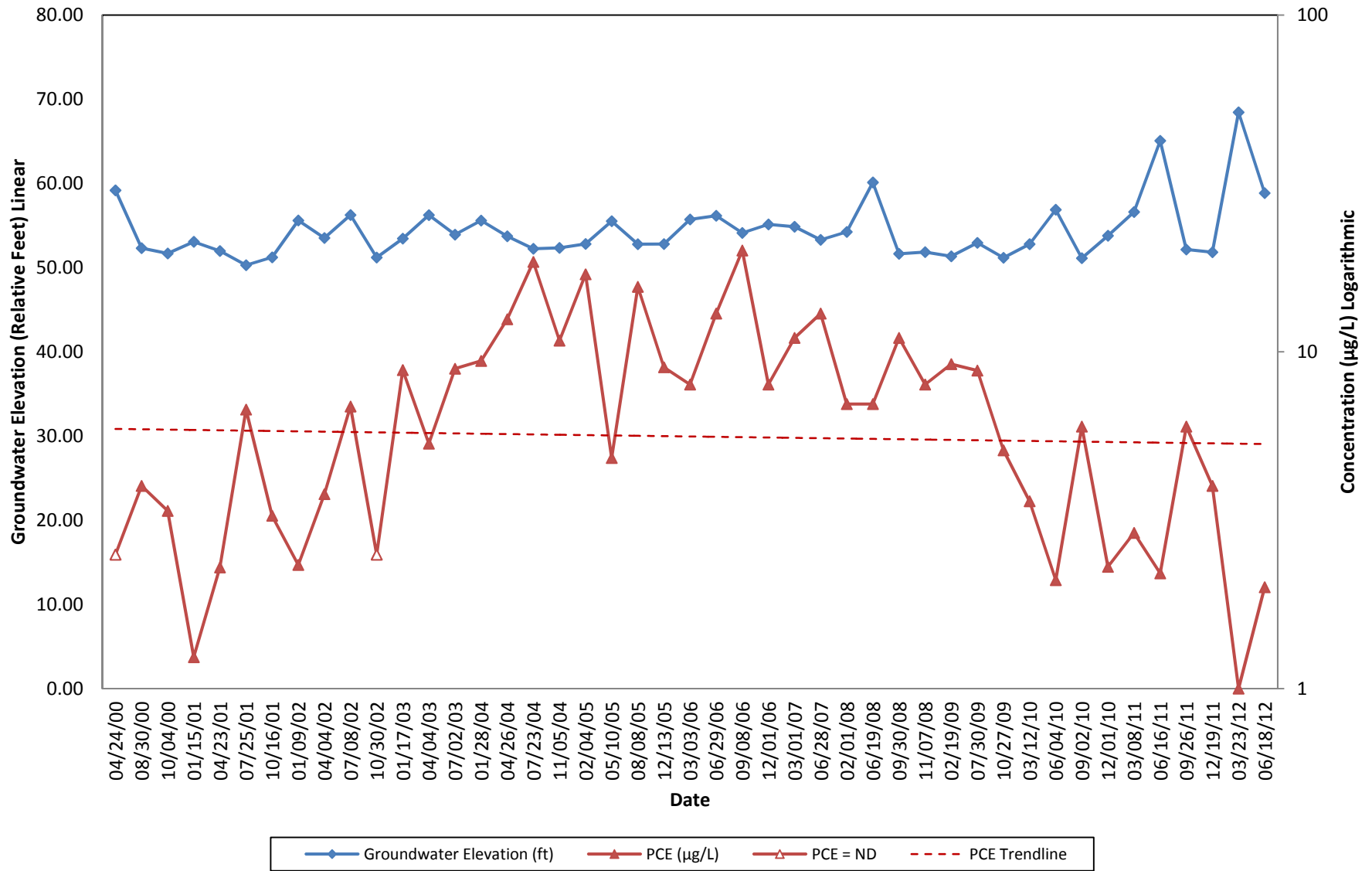
Attachment C:
Hydrographs

MW-1
PCE
76 Products Facility No. 351386
1300 W 12th Street, Vancouver, Washington

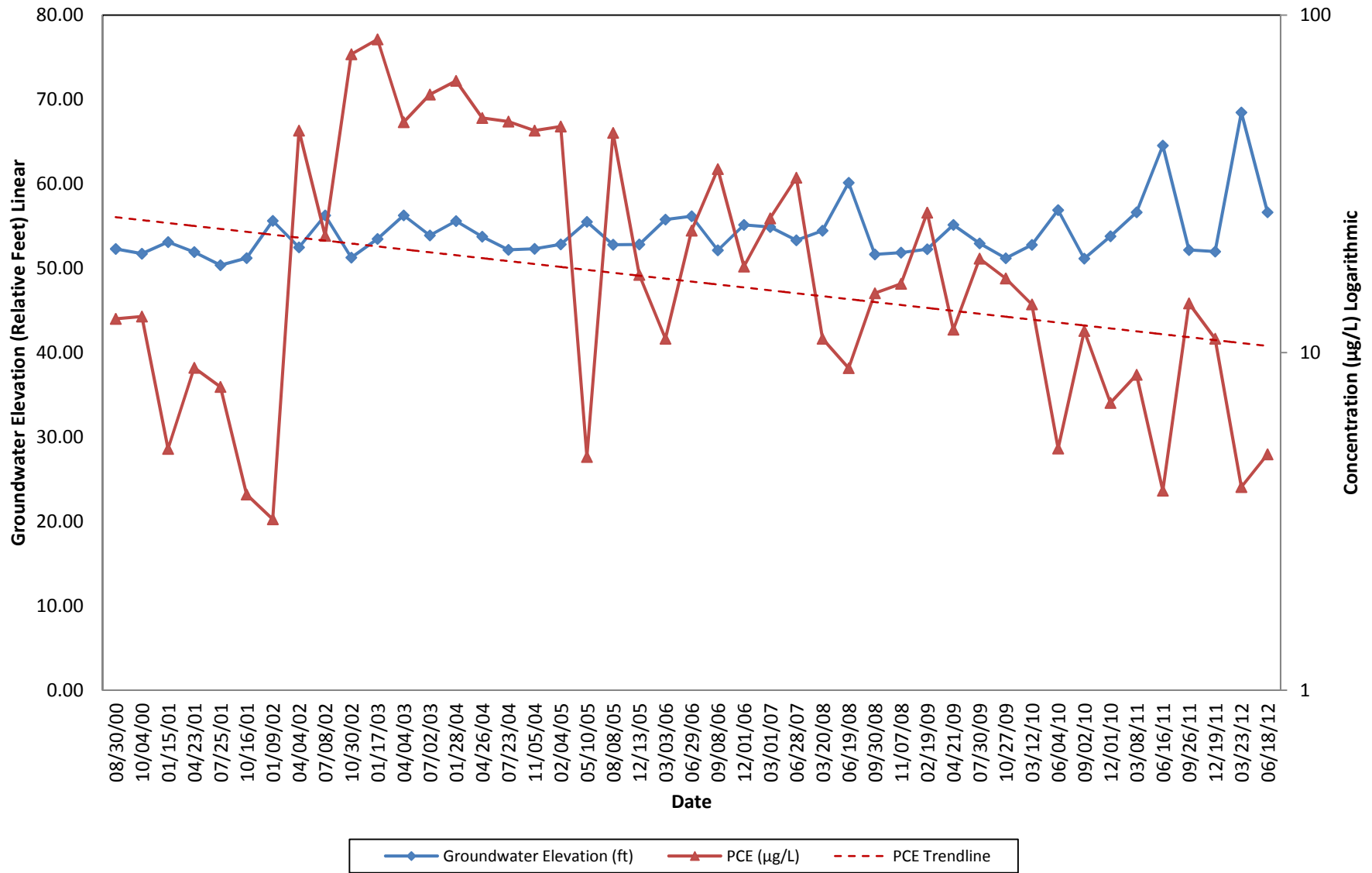


Groundwater Elevation (ft) PCE (µg/L) PCE = ND PCE Trendline

MW-2
PCE
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MW-4
PCE
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MW-5A
PCE
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