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March 8, 2012

Mr. Mark Horne
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, California 94583-5186

Subject: **Second Semiannual 2011 Groundwater Monitoring and Sampling Report
Former Chevron Service Station No. 20-9335**
1225 North 45th Street
Seattle, Washington

Dear Mr. Mark Horne:

SAIC Energy, Environment & Infrastructure, LLC (SAIC), on behalf of Chevron Environmental Management Company (CEMC), prepared this letter summarizing the second semiannual 2011 groundwater monitoring and sampling event at former Chevron Service Station No. 20-9335 (the site) in Seattle, Washington (Figure 1).

FIELD ACTIVITIES

Gettler-Ryan Inc. (Gettler-Ryan) conducted the groundwater monitoring and sampling field event on December 9, 2011. Gettler-Ryan collected depth-to-groundwater measurements and checked for the presence of separate-phase hydrocarbons (SPH) in the five monitoring wells on site.

Groundwater samples were collected from four of the monitoring wells on site and submitted to Lancaster Laboratories, Inc. in Pennsylvania for the following analyses:

- Total petroleum hydrocarbons (TPH) as gasoline-range organics (TPG-GRO) by Washington State Department of Ecology (Ecology) Method NWTPH-Gx;
- TPH as diesel-range organics (TPH-DRO) and TPH as heavy oil-range organics by Ecology Method NWTPH-Dx extended with silica-gel cleanup;
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (USEPA) Method 8021B; and
- Total Lead by USEPA Method 6020.

A laboratory-supplied trip blank (QA) was submitted to the laboratory and analyzed for TPH-GRO and BTEX to provide quality assurance. Field data sheets are provided in the Gettler-Ryan groundwater monitoring and sampling data package (Attachment A).

SAIC Energy, Environment & Infrastructure, LLC

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FINDINGS

Groundwater potentially flows toward the southwest at a gradient of approximately 0.007 feet per foot (Figure 2).

Benzene was detected in monitoring well MW-6 at a concentration exceeding the Model Toxics Control Act (MTCA) Method A cleanup level (CUL).

Historical groundwater elevation data, SPH thickness data, and laboratory analytical results are summarized in Table 1. The laboratory analysis report is provided as Attachment B.

DISCUSSION

Groundwater elevations and potential flow direction are consistent with historical data reported at the site.

SPH was detected in monitoring well MW-7 during this event at a thickness of 0.35 feet.

Petroleum-hydrocarbon constituent concentrations continue to fluctuate above and below MTCA Method A CULs with seasonal changes in groundwater elevation. Lower concentrations are typically observed during the November/December sampling events.

Gettler-Ryan will continue to perform groundwater monitoring and sampling on a semiannual basis. The next groundwater monitoring and sampling event is scheduled for June 2012.

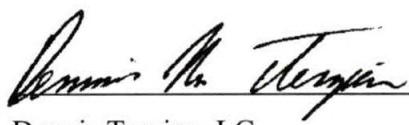
If you have any questions or comments, please contact me at (425) 482-3319 or via email at langem@saic.com.

Sincerely,

SAIC Energy, Environment & Infrastructure, LLC



Michael Lange
Project Manager



Dennis Terzian, LG
Geologist

Enclosures:

Figure 1 – Vicinity Map

Figure 2 – Potentiometric Map

Table 1 – Groundwater Monitoring Data and Analytical Results

Attachment A – Groundwater Monitoring and Sampling Data Package

Attachment B – Laboratory Analysis Report



Dennis M. Terzian

cc: Mr. Roger Nye – Ecology, Toxics Cleanup Program
3190 160th Ave SE, Bellevue, WA 98008-5452

Mr. Larry Hard – Seattle Housing Authority
120 Sixth Avenue North, Seattle, WA 98109-5003

Ms. Veronica Redstone – Housing Resources Group
1651 Bellevue Avenue, Seattle, WA 98122-2014

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.



Maps Provided by Seattle.gov



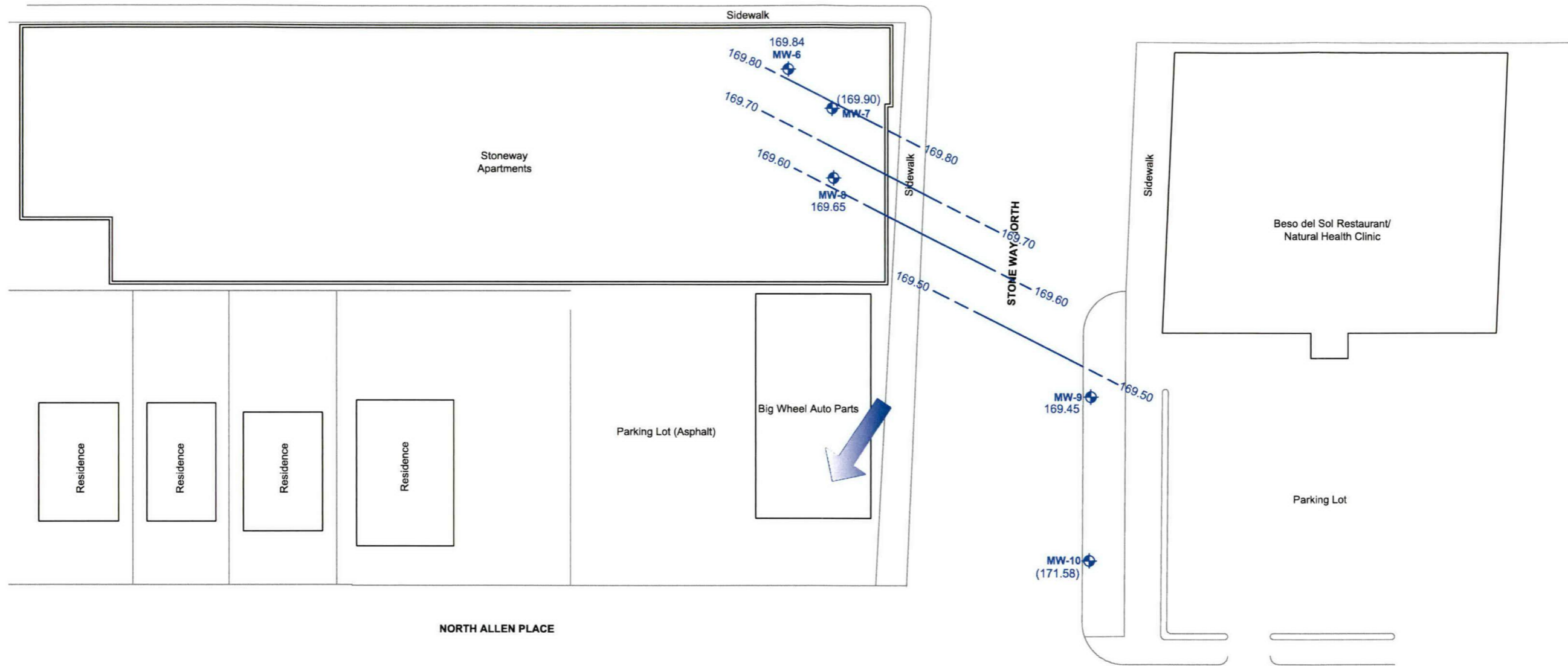
Former Chevron Service Station No. 20-9335
1225 North 45th Street
Seattle, Washington

FIGURE 1
Vicinity Map



FILE NAME:
209335 Vicinity Map.dwg

DATE:
10/5/2011

NORTH 45TH STREET



Legend

-  Groundwater Monitoring Well
- 170.09 Groundwater Elevation in Feet
- (170.09) Groundwater Elevation not used in Contours
- 169.90 — Groundwater Elevation Contour at an 0.1 Foot Interval (Dashed Where Inferred)
-  Approximate Groundwater Flow Direction at a Gradient of 0.007



<p>Former Chevron Service Station No. 20-9335 1225 North 45th Street Seattle, Washington</p>	<p>FIGURE 2 Potentiometric Map December 9, 2011</p> <p><small>DATE: 2/29/2012 DRAWING: 209335_GW Contours.dwg</small></p>
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TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
FORMER CHEVRON SERVICE STATION NO. 20-9335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC* (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE ² (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	T. Lead
MW-6															
02/09/06		197.18	--	36.74	0.00	160.44	680	98	1,500	<0.5	0.7	1.2	37	--	--
05/03/07		197.18	--	36.74	0.00	160.44	1,000	130	380	29	1	4	30	--	--
06/16/09		197.18	INACCESSIBLE		--	--	--	--	--	--	--	--	--	--	--
07/01/09	NP	197.18	--	27.46	0.00	169.72	270	<70	<50	<0.5	<0.5	<0.5	<1.5	--	22.9
12/11/09	NP	197.18	--	27.55	0.00	169.63	35	<69	<50	<0.5	<0.5	<0.5	<1.5	--	0.76
06/09/10	NP	197.18	--	26.84	0.00	170.34	360	<340	5,900	<0.5	<0.5	<0.5	350	--	13.2
11/19/10	NP	197.18	--	26.97	0.00	170.21	240	81	750	<0.5	<0.5	<0.5	11	--	3.7
06/21/11	NP	197.18	--	25.77	0.00	171.41	270	88	2,400	<0.5	<0.5	0.6	9.2	--	3.2
09/22/11	NP	197.18	--	25.90	0.00	171.28	<29	<69	660	<0.5	<0.5	<0.5	4.1	--	3.3
12/09/11	NP	197.18	--	27.34	0.00	169.84	<29	<69	64	140	0.50	<0.5	<1.5	--	0.44
MW-7															
02/09/06		197.42	37.87	38.17	0.30	159.49	--	--	--	--	--	--	--	--	--
05/03/07		197.42	26.55	27.80	0.00	169.62	--	--	--	--	--	--	--	--	--
06/16/09		197.42	INACCESSIBLE		--	--	--	--	--	--	--	--	--	--	--
07/01/09 ¹		197.42	27.39	-- ⁵	-- ⁵	-- ⁵	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	
12/11/09 ¹		197.42	27.50	-- ⁵	-- ⁵	-- ⁵	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	
06/09/10 ¹		197.42	27.03	28.20	1.17	170.16	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	
11/19/10		197.42	27.08	28.34	1.26	170.09	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	
06/21/11		197.42	--	26.12	0.00	171.30	11,000	<1,800	150,000	45	4,800	2,600	18,000	--	310
09/22/11		197.42	--	26.25	0.00	171.17	2,000	<340	100,000	29	4,300	1,900	17,000	--	94.4
12/09/11		197.42	27.45	27.80	0.35	169.90	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	
MW-8															
02/09/06		197.35	--	36.74	0.00	160.61	280	<96	440	<0.5	1.1	3.3	28	--	--
05/03/07		197.35	--	36.74	0.00	160.61	940	<200	2,600	<0.5	<0.5	<0.5	<0.5	--	--
06/16/09		197.35	INACCESSIBLE		--	--	--	--	--	--	--	--	--	--	--
07/01/09	NP	197.35	--	27.84	0.00	169.51	390	<700	430	<0.5	<0.5	<0.5	2.2	--	3.5
12/11/09	NP	197.35	--	27.91	0.00	169.44	300	<69	<50	<0.5	<0.5	<0.5	<1.5	--	7.3
06/09/10	NP	197.35	--	27.21	0.00	170.14	280	180	350	<0.5	<0.5	<0.5	<1.5	--	16.5
11/19/10	NP	197.35	--	27.34	0.00	170.01	320	120	94	<0.5	<0.5	<0.5	<1.5	--	3.4
06/21/11	NP	197.35	--	26.18	0.00	171.17	94	150	54	<0.5	<0.5	1.0	<1.5	--	3.6
09/22/11	NP	197.35	--	26.30	0.00	171.05	<29	<68	140	<0.5	<0.5	2.9	1.70	--	1.8
12/09/11	NP	197.35	--	27.70	0.00	169.65	70	<69	320	<2.0	<2.0	<0.5	3.0	--	0.30

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1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC* (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE ² (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	T. Lead		
MW-9																	
05/03/07		208.11	--	36.74	0.00	171.37	<400	<500	<50	<0.5	<0.5	4	18	--	--		
06/16/09		208.11	--	38.72	0.00	169.39	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	19.3		
07/01/09	NP	208.11	--	38.03	0.00	170.08	<31	<71	--	--	--	--	--	--	--		
12/11/09	NP	208.11	--	38.86	0.00	169.25	76	<69	<50	<0.5	<0.5	<0.5	<1.5	--	14.5		
06/09/10	NP	208.11	--	38.17	0.00	169.94	42	110	<50	<0.5	<0.5	<0.5	<1.5	--	21.2		
11/19/10	NP	208.11	--	38.23	0.00	169.88	<29	130	<50	<0.5	<0.5	<0.5	<1.5	--	18.7		
06/21/11	NP	208.11	--	37.15	0.00	170.96	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--	4.7		
09/22/11	NP	208.11	--	37.25	0.00	170.86	<300	<700	<50	<0.5	<0.5	<0.5	<1.5	--	12.4		
12/09/11	NP	208.11	--	38.66	0.00	169.45	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	2.8		
MW-10																	
05/03/07		207.29	--	36.74	0.00	170.55	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	--		
06/16/09		207.29	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--		
07/01/09	NP	207.29	--	38.72	0.00	168.57	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	10.9		
12/11/09	NP	207.29	--	35.91	0.00	171.38	49	<69	<50	<0.5	<0.5	<0.5	<1.5	--	13.4		
06/09/10	NP	207.29	--	37.48	0.00	169.81	50	88	<50	<0.5	<0.5	<0.5	<1.5	--	7.2		
11/19/10	NP	207.29	--	37.53	0.00	169.76	<29	74	<50	<0.5	<0.5	<0.5	<1.5	--	18.8		
06/21/11	NP	207.29	--	36.46	0.00	170.83	<31	180	<50	<0.5	<0.5	<0.5	<1.5	--	5.7		
09/22/11	NP	207.29	--	36.60	0.00	170.69	<300	<700	<50	<0.5	<0.5	<0.5	<1.5	--	6.6		
12/09/11	NP	207.29	--	35.71	0.00	171.58	<29	<69	<50	<0.5	<0.5	<0.5	<1.5	--	2.1		
MW-1																	
10/11/00		97.95	--	34.50	--	63.45	--	--	--	--	--	--	--	--	--		
12/16/00		97.95	--	35.91	0.00	62.04	ND	ND	74.4	ND	ND	ND	ND	ND	ND ⁵		
03/26/01		97.95	--	36.54	0.00	61.41	ND	ND	ND	ND	ND	ND	ND	ND	--		
06/25/01		97.95	--	36.78	0.00	61.17	<281	<842	<50.0	<0.500	<0.500	<0.500	<1.00	--	--		
09/24/01		97.95	--	37.14	0.00	60.81	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.00	--	--		
12/13/01		97.95	--	37.25	0.00	60.70	<250	<500	<80.0	<0.500	<0.500	<0.500	<1.00	--	--		
03/08/02	NP	97.95	--	36.79	0.00	61.16	<250	<750	<50	<0.50	<0.50	<0.50	<1.5	--	--		
05/29/02		97.95	--	36.44	0.00	61.51	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--		
09/16/02	NP	97.95	--	36.71	0.00	61.24	<250	<250	<50	<0.50	<0.50	<0.50	<1.5	--	--		
12/05/02		97.95	--	37.09	0.00	60.86	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--		
03/04/03	NP	97.95	--	37.26	0.00	60.69	<250	<250	100	<0.50	<0.50	<0.50	<3.0	--	--		
06/03/03		97.95	--	37.09	0.00	60.86	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--		
10/27/03		97.95	--	37.42	0.00	60.53	NOT SAMPLED DUE TO INSUFFICIENT WATER									--	--

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MW-1 (cont.)															
03/31/04	NP	97.95	--	37.12	0.00	60.83	<800	<1,000	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/28/04		97.95	--	37.14	0.00	60.81	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/29/04		97.95	--	37.50	0.00	60.45	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--	--
01/04/05		97.95	--	37.61	0.00	60.34	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
ABANDONED															
MW-2															
10/11/00		98.70	--	34.50	--	64.20	--	--	--	--	--	--	--	--	--
12/16/00		98.70	--	36.46	0.00	62.24	1,000	ND	28,100	283	2,560	693	4,020	ND	0.00194
03/26/01		98.70	--	37.12	0.00	61.58	1,180	ND	17,000	143	1,450	378	2,180	ND/	--
06/25/01		98.70	--	37.37	0.00	61.33	418	<750	11,700	92.3	547	181	1,010	--	--
09/24/01		98.70	--	37.72	0.00	60.98	4,840	<557	22,100	120	1,380	658	4,100	--	--
12/13/01		98.70	--	37.89	0.00	60.81	5,540	<500	84,000	185	3,960	1,590	9,950	--	--
03/08/02		98.70	37.24	38.00	0.76	61.31	NOT SAMPLED DUE TO THE PRESENCE OF SPH			--	--	--	--	--	--
05/29/02		98.70	36.81	37.54	0.73	61.74	NOT SAMPLED DUE TO THE PRESENCE OF SPH			--	--	--	--	--	--
09/16/02		98.70	37.19	37.61	0.42	61.43	NOT SAMPLED DUE TO THE PRESENCE OF SPH			--	--	--	--	--	--
10/15/02		98.70	37.24	37.68	0.44	61.37	--	--	--	--	--	--	--	--	--
11/22/02		98.70	37.12	37.63	0.51	61.48	--	--	--	--	--	--	--	--	--
12/05/02		98.70	37.51	38.10	0.59	61.07	NOT SAMPLED DUE TO THE PRESENCE OF SPH			--	--	--	--	--	--
01/28/03		98.70	36.77	37.33	0.56	61.82	--	--	--	--	--	--	--	--	--
02/13/03		98.70	37.44	38.02	0.58	61.14	--	--	--	--	--	--	--	--	--
03/04/03		98.70	INACCESSIBLE - VEHICLE PARKED OVER WELL				--	--	--	--	--	--	--	--	--
04/21/03		98.70	37.21	37.78	0.57	61.38	--	--	--	--	--	--	--	--	--
05/08/03		98.70	37.43	37.94	0.51	61.17	--	--	--	--	--	--	--	--	--
06/03/03		98.70	37.37	37.91	0.54	61.22	NOT SAMPLED DUE TO THE PRESENCE OF SPH			--	--	--	--	--	--
07/06/03		98.70	36.96	37.51	0.55	61.63	--	--	--	--	--	--	--	--	--
08/18/03		98.70	37.49	38.02	0.53	61.10	--	--	--	--	--	--	--	--	--
10/27/03		98.70	37.54	39.98	2.44	60.67	NOT SAMPLED DUE TO THE PRESENCE OF SPH			--	--	--	--	--	--
11/17/03		98.70	37.10	37.58	0.48	61.50	--	--	--	--	--	--	--	--	--
12/31/03		98.70	36.18	38.19	2.01	62.12	--	--	--	--	--	--	--	--	--
02/09/04		98.70	37.00	37.49	0.49	61.60	--	--	--	--	--	--	--	--	--
03/04/04		98.70	35.85	37.06	1.21	62.61	--	--	--	--	--	--	--	--	--
03/31/04		98.70	37.32	39.05	1.73	61.03	NOT SAMPLED DUE TO THE PRESENCE OF SPH			--	--	--	--	--	--

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1225 North 45th Street
Seattle, Washington
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Well ID/ Date	Purge Method	TOC* (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE ² (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	T. Lead
MW-2 (cont.)															
06/28/04		98.70	37.32	39.05	1.73	61.03	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
09/11/04		98.70	37.65	39.10	1.45	60.76	--	--	--	--	--	--	--	--	--
09/29/04		98.70	37.71	39.39	1.68	60.65	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
11/22/04		98.70	36.89	38.16	1.27	61.56	--	--	--	--	--	--	--	--	--
01/04/05		98.70	37.88	39.80	1.92	60.44	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
01/14/05		98.70	37.49	39.02	1.53	60.90	--	--	--	--	--	--	--	--	--
ABANDONED															
MW-3															
10/11/00		98.76	--	34.00	--	64.76	--	--	--	--	--	--	--	--	--
12/16/00		98.76	--	36.39	0.00	62.37	ND	ND	ND	ND	0.612	ND	1.95	ND	ND
03/26/01		98.76	--	37.05	0.00	61.71	ND	ND	ND	ND	ND	ND	ND	ND	--
06/25/01		98.76	--	37.29	0.00	61.47	<250	<750	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
09/24/01		98.76	--	37.64	0.00	61.12	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
12/13/01		98.76	--	37.78	0.00	60.98	<250	<500	<80.0	<0.500	<0.500	<0.500	<1.00	--	--
03/08/02	NP	98.76	--	37.28	0.00	61.48	<250	<750	320	<0.50	0.64	2.1	15	--	--
05/29/02		98.76	--	36.92	0.00	61.84	SAMPLED SEMI-ANNUALLY					--	--	--	--
09/16/02	NP	98.76	--	37.21	0.00	61.55	<250	<250	<50	<0.50	<0.50	<0.50	<1.5	--	--
12/05/02		98.76	--	37.58	0.00	61.18	SAMPLED SEMI-ANNUALLY					--	--	--	--
03/04/03	NP	98.76	--	37.79	0.00	60.97	<250	<250	<50	<0.50	<0.50	<0.50	<1.5	--	--
06/03/03		98.76	--	37.68	0.00	61.08	SAMPLED SEMI-ANNUALLY					--	--	--	--
10/27/03	NP	98.76	--	38.00	0.00	60.76	<250	<250	<50	<0.5	<0.5	<0.5	<1.5	--	--
03/31/04	NP	98.76	--	37.65	0.00	61.11	<800	<1,000	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/28/04		98.76	--	37.68	0.00	61.08	SAMPLED SEMI-ANNUALLY					--	--	--	--
09/29/04	NP	98.76	--	38.01	0.00	60.75	<250	<250	<50	<0.5	<0.5	<0.5	<1.5	--	--
01/04/05		98.76	--	38.19	0.00	60.57	SAMPLED SEMI-ANNUALLY					--	--	--	--
ABANDONED															
MW-4															
10/11/00		98.52	--	35.00	--	63.52	--	--	--	--	--	--	--	--	--
12/16/00		98.52	--	36.35	0.00	62.17	ND	ND	58,200	326	5,520	1,430	8,520	ND	0.0123
03/26/01		98.52	--	37.00	0.00	61.52	266	ND	27,200	178	2,160	785	4,160	ND	--
06/25/01		98.52	--	37.25	0.00	61.27	<250	<750	12,300	69.0	654	416	1,910	--	--
09/24/01		98.52	--	37.60	0.00	60.92	<250	<500	4,130	30.1	154	197	684	--	--

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
FORMER CHEVRON SERVICE STATION NO. 20-9335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC* (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE ² (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	T. Lead
MW-4 (cont.)															
12/13/01		98.52	--	37.72	0.00	60.80	<250	<500	5,490	30.3	175	177	679	--	--
03/08/02	NP	98.52	--	38.36	0.00	60.16	<250	<750	9,000	<50	150	170	710	--	--
05/29/02	NP	98.52	--	36.86	0.00	61.66	<250	<750	6,700	22	150	190	780	--	--
08/07/02		98.52	--	36.92	0.00	61.60	--	--	--	--	--	--	--	--	--
09/16/02	NP	98.52	--	37.16	0.00	61.36	<250	<250	7,500	46	230	240	630	--	--
12/05/02	NP	98.52	--	37.53	0.00	60.99	<250	<250	14,000	73	400	540	1,500	--	--
03/04/03		98.52	36.68	36.71	0.03	61.83	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
06/03/03		98.52	36.59	36.63	0.04	61.92	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
07/06/03		98.52	36.90	36.93	0.03	61.61	--	--	--	--	--	--	--	--	--
08/18/03		98.52	36.76	36.80	0.04	61.75	--	--	--	--	--	--	--	--	--
10/27/03	NP	98.52	--	37.96	0.00	60.56	<400	<500	2,200	16	55	76	170	--	--
11/17/03		98.52	36.34	36.37	0.03	62.17	--	--	--	--	--	--	--	--	--
12/31/03		98.52	--	36.88	0.00	61.64	--	--	--	--	--	--	--	--	--
02/09/04		98.52	36.14	36.17	0.03	62.37	--	--	--	--	--	--	--	--	--
03/04/04		98.52	--	36.74	0.00	61.78	--	--	--	--	--	--	--	--	--
03/31/04	NP	98.52	--	37.59	0.00	60.93	<250	<250	3,900	14	96	110	340	--	--
06/28/04	NP	98.52	--	37.54	0.00	60.98	<250	<250	1,600	8.5	15	59	110	--	--
09/11/04		98.52	37.78	37.81	0.03	60.73	--	--	--	--	--	--	--	--	--
09/29/04	NP	98.52	--	37.86	0.00	60.66	<250	<250	1,500	18	40	76	170	--	--
11/22/04		98.52	--	36.81	0.00	61.71	--	--	--	--	--	--	--	--	--
01/04/05	NP	98.52	--	38.11	0.00	60.41	1,600	<250	1,600	10	13	60	110	--	--
01/14/05		98.52	--	37.58	0.00	60.94	--	--	--	--	--	--	--	--	--
ABANDONED															
MW-5															
10/11/00		99.42	--	34.50	--	64.92	--	--	--	--	--	--	--	--	--
12/16/00		99.42	--	37.18	0.00	62.24	5,080	ND	146,000	ND	15,100	4,160	24,100	ND	0.0200
03/26/01		99.42	--	37.91	0.00	61.51	77,900	ND	149,000	256	10,600	4,000	24,200	ND	--
06/25/01		99.42	--	38.14	0.00	61.28	109,000	<18,100	127,000	210	9,580	3,730	21,500	--	--
09/24/01		99.42	38.40	38.44	0.04	61.01	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
12/13/01		99.42	38.55	38.59	0.04	60.86	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
03/08/02		99.42	37.96	38.46	0.50	61.36	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
05/29/02		99.42	37.60	38.05	0.45	61.73	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
FORMER CHEVRON SERVICE STATION NO. 20-9335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC* (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE ² (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	T. Lead
MW-5 (cont.)															
08/07/02		99.42	37.73	38.12	0.39	61.61	--	--	--	--	--	--	--	--	--
09/16/02		99.42	38.00	38.39	0.39	61.34	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
10/15/02		99.42	38.09	38.47	0.38	61.25	--	--	--	--	--	--	--	--	--
11/22/02		99.42	37.84	38.26	0.42	61.50	--	--	--	--	--	--	--	--	--
12/05/02		99.42	38.42	38.78	0.36	60.93	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
01/28/03		99.42	37.88	38.24	0.36	61.47	--	--	--	--	--	--	--	--	--
02/13/03		99.42	38.33	38.68	0.35	61.02	--	--	--	--	--	--	--	--	--
03/04/03		99.42	37.54	37.89	0.35	61.81	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
04/21/03		99.42	37.96	38.29	0.33	61.39	--	--	--	--	--	--	--	--	--
05/08/03		99.42	38.50	38.82	0.32	60.86	--	--	--	--	--	--	--	--	--
06/03/03		99.42	37.42	37.76	0.34	61.93	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
07/06/03		99.42	37.77	38.11	0.34	61.58	--	--	--	--	--	--	--	--	--
08/18/03		99.42	38.54	38.86	0.32	60.82	--	--	--	--	--	--	--	--	--
10/27/03		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
11/17/03		99.42	37.87	38.17	0.30	61.49	--	--	--	--	--	--	--	--	--
12/31/03		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
02/09/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
03/04/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
03/31/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
06/28/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
09/11/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
09/29/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
11/22/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
01/04/05		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
01/14/05		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
ABANDONED															
TRIP BLANK															
12/16/00		--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--
03/26/01		--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--
06/25/01		--	--	--	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
09/24/01		--	--	--	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
12/13/01		--	--	--	--	--	--	--	<80.0	<0.500	<0.500	<0.500	<1.00	--	--

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
FORMER CHEVRON SERVICE STATION NO. 20-9335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC* (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE ² (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	T. Lead	
TRIP BLANK (cont.)																
03/08/02		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	
05/29/02		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	
09/16/02		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	
12/05/02		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	
03/04/03		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	
10/27/03		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
QA																
03/31/04		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
06/28/04		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
09/29/04		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
01/04/05		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
06/16/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
07/01/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
12/11/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
06/09/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
11/19/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
06/21/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
09/22/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
12/09/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	
Standard Laboratory Reporting Limits:							--	--	50	0.5	0.5	0.5	1.5	--	0.00100	
MTCA Method A Cleanup Levels:							500	500	800/1,000	5	1,000	700	1,000	20	--	
Current Method ³ :							NWTPH-Dx + Extended ¹			NWTPH-Gx and USEPA 8021					USEPA 6020	

EXPLANATIONS:

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

* TOC elevations have been surveyed in feet relative to the 1988 North American Vertical Datum. MW-1 through MW-5 TOC Elevation are reference to an arbitrary benchmark of 100 feet.

DTP = Depth to Product

DTW = Depth to Water

(ft.) = Feet

GWE = Groundwater Elevation

LNAPL = Light Non-Aqueous Phase Liquid

MTBE = Methyl Tertiary Butyl Ether

MTCA = Model Toxics Control Act Cleanup Regulations

ND = Not Detected

NP = No Purge

QA = Quality Assurance/Trip Blank

SPH = Separate Phase Hydrocarbon

SPHT = Separate Phase Hydrocarbon Thickness

T. Lead = Total Lead

TOC = Top of Casing

TPH = Total Petroleum Hydrocarbons

TPH-DRO = TPH as Diesel-Range Organics

TPH-GRO = TPH as Gasoline-Range Organics

TPH-HRO = TPH as Heavy Oil-Range Organics

USEPA = United States Environmental Protection Agency

µg/L = Micrograms per liter

-- = Not Measured/Not Analyzed

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
FORMER CHEVRON SERVICE STATION NO. 20-9335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Notes:

- 1 Analyzed with silica-gel cleanup.
- 2 When SPH is present, GWE has been corrected using the following formula: $GWE = [(TOC - DTW) + (SPHT \times 0.80)]$.
- 3 Laboratory analytical methods for historical data may not be consistent with list of current analytical methods. When necessary, consult original laboratory reports to verify methods used.
- 4 Skimmer in well.
- 5 Interface probe could not detect LNAPL/Groundwater Interface, unable to gauge hydrocarbon thickness and calculate corrected GWE.

Attachment A:
Groundwater Monitoring and Sampling Data Package



GETTLER-RYAN INC.

TRANSMITTAL

December 15, 2011
G-R #386750

TO: Mr. Michael Lange
SAIC
18912 North Creek Parkway, Suite 101
Bothell, WA 98011

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc. *DLH*
6747 Sierra Court, Suite J
Dublin, California 94568

RE: **Former Chevron Service Station
#209335
1225 North 45th Street
Seattle, Washington**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Fourth Quarter Event of December 9, 2011

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/209335



GETTLER - RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#: **Chevron #209335**

Date: **12.9.11**

Address: **1225 N. 45Th Street**

City/St.: **Seattle, WA**

Status of Site: **APARTMENT PARKING GARAGE / SIDEWALK**

DRUMS:

Please list below ALL DRUMS @ site: i.e., drum description, condition, labeling, contents, location of drum:



#	Description	Condition	Labeling	Contents	Location
	No drums				

WELLS:

Please check the condition of ALL WELLS @ site: i.e., well box condition, gaskets, bolts, well plug, well lock, etc.:

Well ID	Gaskets (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Well Plug Y/N	Well Lock Y/N	Well Box Manufacturer/Size/# of Bolts	Other
MW-6	GOOD	GOOD	GOOD	GOOD	8" NIPPES x 3	
MW-7	↓	↓	↓	↓	↓	
MW-8	↓	↓	↓	↓	↓	
MW-9	↓	↓	↓	↓	↓	
MW-10	↓	↓	↓	↓	↓	

Additional Comments/Observations: _____

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize. Purge water is treated by filtering the water through granular activated carbon and is subsequently discharged to the ground surface at the site.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 386750
 Site Address: 1225 N. 45Th Street Event Date: 12.9.11 (inclusive)
 City: Seattle, WA Sampler: J.P

Well ID: MW-6 Date Monitored: 12.9.11

Well Diameter: 2
 Total Depth: 34.23 ft.
 Depth to Water: 27.34 ft. Check if water column is less than 0.50 ft.
 Volume Factor (VF) table:

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 28.71
 xVF .17 = 1.1 x3 case volume = Estimated Purge Volume: 4 gal.

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____
 Product Transferred to: _____

Start Time (purge): 1030 Weather Conditions: Overcast
 Sample Time/Date: 1100 12.9.11 Water Color: cloudy Odor: Y/N MILD
 Approx. Flow Rate: _____ gpm. Sediment Description: LIGHT GREY
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 27.90

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm - 25)	Temperature (C) (F)	D.O. (mg/L)	ORP (mV)
<u>1030</u>	<u>1</u>	<u>6.42</u>	<u>.286</u>	<u>4.1</u>		
<u>1046</u>	<u>3</u>	<u>6.42</u>	<u>.286</u>	<u>3.8</u>		
<u>1056</u>	<u>4</u>	<u>6.42</u>	<u>.286</u>	<u>3.6</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	<u>2</u> x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	<u>1</u> x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (6020)

COMMENTS: Good Cond

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 386750
 Site Address: 1225 N. 45Th Street Event Date: 12.9.11 (inclusive)
 City: Seattle, WA Sampler: J.P.

Well ID: MW-7 Date Monitored: 12.9.11
 Well Diameter: 2
 Total Depth: 33.57 ft.
 Depth to Water: 27.00 ft. Check if water column is less then 0.50 ft.
5.77 xVF = x3 case volume = Estimated Purge Volume: gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]:

Volume	3/4"= 0.02	1"= 0.04	<u>2"= 0.17</u>	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Time Started: (2400 hrs)
 Time Completed: (2400 hrs)
 Depth to Product: 27.45 ft
 Depth to Water: 27.00 ft
 Hydrocarbon Thickness: .35 ft
 Visual Confirmation/Description: YELLOWISH TO CLEAR
 Skimmer: Absorbant Sock (circle one)
 Amt Removed from Skimmer: 0 gal
 Amt Removed from Well: 0 gal
 Water Removed: 0
 Product Transferred to: 0

~~Purge Equipment: Disposable Bailer, Stainless Steel Bailer, Stack Pump, Suction Pump, Grundfos, Peristaltic Pump, QED Bladder Pump, Other: _____~~

~~Sampling Equipment: Disposable Bailer, Pressure Bailer, Metal Filters, Peristaltic Pump, QED Bladder Pump, Other: _____~~

Start Time (purge): Weather Conditions:
 Sample Time/Date: Water Color: Odor: Y / N
 Approx. Flow Rate: gpm. Sediment Description:
 Did well de-water? If yes, Time: Volume: gal. DTW @ Sampling:

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - pS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (6020)

COMMENTS: PH PRESENT M/O
Good Condition

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 386750
 Site Address: 1225 N. 45Th Street Event Date: 12.9.11 (inclusive)
 City: Seattle, WA Sampler: JF

Well ID: MW-0 Date Monitored: 12.9.11

Well Diameter: 2

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Total Depth: 35.12 ft.

Depth to Water: 27.70 ft. Check if water column is less than 0.50 ft.

7.42 xVF .17 = 1.2 x3 case volume = Estimated Purge Volume: 4 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 29.18

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____
 Product Transferred to: _____

Start Time (purge): 1110 Weather Conditions: Overcast
 Sample Time/Date: 1140/12.9.11 Water Color: cloudy Odor: (Y) N
 Approx. Flow Rate: _____ gpm. Sediment Description: white-grey
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 28.20

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm-cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1118</u>	<u>2</u>	<u>6.32</u>	<u>.224</u>	<u>4.4</u>	_____	_____
<u>1126</u>	<u>3</u>	<u>6.32</u>	<u>.224</u>	<u>4.1</u>	_____	_____
<u>1136</u>	<u>4</u>	<u>6.32</u>	<u>.224</u>	<u>4.0</u>	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-0</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	<u>2</u> x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	<u>1</u> x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (6020)

COMMENTS:

Good Cond

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 386750
 Site Address: 1225 N. 45Th Street Event Date: 12.9.11 (inclusive)
 City: Seattle, WA Sampler: J.P

Well ID: MW-9 Date Monitored: 12.9.11
 Well Diameter: 2
 Total Depth: 44.23 ft.
 Depth to Water: 30.66 ft. Check if water column is less than 0.50 ft.
3.57 xVF .17 = .94 x3 case volume = Estimated Purge Volume: 3 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 39.77

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
 Disposable Bailor
 Stainless Steel Bailor _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailor
 Pressure Bailor _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____
 Product Transferred to: _____

Start Time (purge): 0945 Weather Conditions: Overcast
 Sample Time/Date: 1015 12.9.11 Water Color: clear Odor: Y (N)
 Approx. Flow Rate: _____ gpm. Sediment Description: N.A
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 39.10

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm @ 25°C)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>0953</u>	<u>1</u>	<u>6.88</u>	<u>.396</u>	<u>4.7</u>		
<u>1000</u>	<u>2</u>	<u>6.88</u>	<u>.394</u>	<u>4.5</u>		
<u>1012</u>	<u>3</u>	<u>6.88</u>	<u>.394</u>	<u>4.3</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	<u>2</u> x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	<u>1</u> x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (6020)

COMMENTS: GOOD COND

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 386750
 Site Address: 1225 N. 45Th Street Event Date: 12.9.11 (inclusive)
 City: Seattle, WA Sampler: V.P.

Well ID: MW-10 Date Monitored: 12.9.11
 Well Diameter: 2
 Total Depth: 44.53 ft.
 Depth to Water: 35.71 ft. Check if water column is less than 0.50 ft.
0.82 xVF .17 = 1.4 x3 case volume = Estimated Purge Volume: 5 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 37.47

Volume	3/4"= 0.02	1"= 0.04	<u>2"= 0.17</u>	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer/ Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____
 Product Transferred to: _____

Start Time (purge): 0900 Weather Conditions: OVERCAST
 Sample Time/Date: 0930/12.9.11 Water Color: CLEAR Odor: Y (N)
 Approx. Flow Rate: _____ gpm. Sediment Description: NONE
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 36.25

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0900</u>	<u>2</u>	<u>6.90</u>	<u>.422</u>	<u>4.8</u>		
<u>0916</u>	<u>4</u>	<u>6.90</u>	<u>.422</u>	<u>4.6</u>		
<u>0924</u>	<u>5</u>	<u>6.91</u>	<u>.421</u>	<u>4.7</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-10</u>	<u>5</u> x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	<u>2</u> x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	<u>1</u> x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (6020)

COMMENTS: _____

6000

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

Chevron Northwest Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only

Acct. #: _____ Group # _____ Sample #: _____

Facility #: SS#209335-OML G-R#386750
 Site Address: 1225 N. 45th Street, SEATTLE, WA
 Chevron PM: MGA Lead Consultant: SAICML Lange
 Consultant/Office: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
 Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com)
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899
 Sampler: _____ J. Payne

Sample Identification				Matrix			Analyses Requested										SCR #: _____					
							Preservation Codes															
Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + WEE 8021	8260	8260 full scan	Oxygenates	NWTPH GX	NWTPH DX Silica Gel Cleanup	Lead Total Diss.	Method <u>6020</u>	WAVPH	WAEPH	NWTPH H CID	quantification		
<u>P.A.</u>	<u>12.9.11</u>				<input checked="" type="checkbox"/>				<u>2</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>								
<u>MW-6</u>		<u>1100</u>			<input checked="" type="checkbox"/>				<u>6</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>MW-8</u>		<u>1140</u>			<input checked="" type="checkbox"/>				<u>6</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>MW-9</u>		<u>1015</u>			<input checked="" type="checkbox"/>				<u>6</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>MW-10</u>		<u>0930</u>			<input checked="" type="checkbox"/>				<u>6</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						

- 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

Comments /Remarks

Please forward the lab results directly to the Lead Consultant and cc: G-R.

Turnaround Time Requested (TAT) (please circle) <input checked="" type="radio"/> 8TD. TAT 72 hour 48 hour 24 hour 4 day 5 day	Relinquished by: <u>[Signature]</u>	Date: <u>12/9/11</u>	Time: <u>1800</u>	Received by: _____	Date: _____	Time: _____
	Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
	Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
	Data Package Options (please circle if required) EDF/EDD QC Summary Type I - Full Type VI (Raw Data)	Relinquished by Commercial Carrier:	Received by: _____		Date: _____	Time: _____
UPS <input checked="" type="radio"/> FedEx Other _____				Temperature Upon Receipt _____ C° Custody Seals Intact? Yes No		

Attachment B:
Laboratory Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

December 30, 2011

Project: 209335

Submittal Date: 12/13/2011
Group Number: 1280769
PO Number: 0015080810
Release Number: BAUHS
State of Sample Origin: WAClient Sample DescriptionQA Water Sample
MW-6 Grab Water Sample
MW-8 Grab Water Sample
MW-9 Grab Water Sample
MW-10 Grab Water SampleLancaster Labs (LLI) #6497923
6497924
6497925
6497926
6497927

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

ELECTRONIC COPY TO SAIC c/o Gettler-Ryan
ELECTRONIC COPY TO SAIC
ELECTRONIC COPY TO SAIC

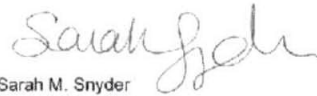
Attn: Rachelle Munoz

Attn: Mike Lange

Attn: Jamalyn Green

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: QA Water Sample
 Facility# 209335 Job# 386750
 1225 N. 45th Street - Seattle, WA

LLI Sample # WW 6497923
 LLI Group # 1280769
 Account # 11260

Project Name: 209335

Collected: 12/09/2011

Chevron
 6001 Bollinger Canyon Road
 L4310
 San Ramon CA 94583

Submitted: 12/13/2011 09:35

Reported: 12/30/2011 09:36

45SQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	SW-846 8021B		ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11353A94A	12/19/2011 22:27	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11353A94A	12/19/2011 22:27	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11353A94A	12/19/2011 22:27	Marie D John	1



Analysis Report

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Page 1 of 1

Sample Description: MW-6 Grab Water Sample
 Facility# 209335 Job# 386750
 1225 N. 45th Street - Seattle, WA

LLI Sample # WW 6497924
 LLI Group # 1280769
 Account # 11260

Project Name: 209335

Collected: 12/09/2011 11:00 by JP

Chevron
 6001 Bollinger Canyon Road
 L4310
 San Ramon CA 94583

Submitted: 12/13/2011 09:35
 Reported: 12/30/2011 09:36

45S06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 64	ug/l 50	1
GC Volatiles					
02102	Benzene	SW-846 8021B 71-43-2	ug/l 140	ug/l 0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	0.5	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
The reverse surrogate, capric acid, was present at <1%.					
Metals					
06035	Lead	SW-846 6020 7439-92-1	ug/l 0.44	ug/l 0.080	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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11353A94A	12/19/2011 23:43	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11353A94A	12/19/2011 23:43	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11353A94A	12/19/2011 23:43	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530006A	12/28/2011 12:17	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530006A	12/19/2011 17:25	Bronson L Cole	1
06035	Lead	SW-846 6020	1	113486050003A	12/16/2011 08:53	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113486050003	12/15/2011 09:20	Denise K Connors	1



Analysis Report

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Page 1 of 1

Sample Description: MW-8 Grab Water Sample
 Facility# 209335 Job# 386750
 1225 N. 45th Street - Seattle, WA

LLI Sample # WW 6497925
 LLI Group # 1280769
 Account # 11260

Project Name: 209335

Collected: 12/09/2011 11:40 by JP

Chevron

6001 Bollinger Canyon Road

Submitted: 12/13/2011 09:35

L4310

Reported: 12/30/2011 09:36

San Ramon CA 94583

45S08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWT n.a.	ug/l 320	ug/l 50	1
GC Volatiles					
02102	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 2.0	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	2.0	1
02102	Total Xylenes	1330-20-7	3.0	1.5	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWT modified	ug/l 70	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
The reverse surrogate, capric acid, was present at <1%.					
Metals					
06035	Lead	SW-846 6020 7439-92-1	ug/l 0.30	ug/l 0.080	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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11353A94A	12/20/2011 00:09	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11353A94A	12/20/2011 00:09	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11353A94A	12/20/2011 00:09	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530026A	12/23/2011 10:37	Michele D Hamilton	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530026A	12/20/2011 08:00	Kerrie A Freeburn	1
06035	Lead	SW-846 6020	1	113486050003A	12/16/2011 08:55	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113486050003	12/15/2011 09:20	Denise K Connors	1



Analysis Report

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Page 1 of 1

Sample Description: MW-9 Grab Water Sample
 Facility# 209335 Job# 386750
 1225 N. 45th Street - Seattle, WA

LLI Sample # WW 6497926
 LLI Group # 1280769
 Account # 11260

Project Name: 209335

Collected: 12/09/2011 10:15 by JP

Chevron

6001 Bollinger Canyon Road

Submitted: 12/13/2011 09:35

L4310

Reported: 12/30/2011 09:36

San Ramon CA 94583

45S09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Volatiles					
02102	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at <1%.					
Metals					
06035	Lead	SW-846 6020 7439-92-1	ug/l 2.8	ug/l 0.080	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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11353A94A	12/20/2011 00:34	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11353A94A	12/20/2011 00:34	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11353A94A	12/20/2011 00:34	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530006A	12/28/2011 12:38	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530006A	12/19/2011 17:25	Bronson L Cole	1
06035	Lead	SW-846 6020	1	113486050003A	12/16/2011 08:58	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113486050003	12/15/2011 09:20	Denise K Connors	1



Analysis Report

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Page 1 of 1

Sample Description: MW-10 Grab Water Sample
Facility# 209335 Job# 386750
1225 N. 45th Street - Seattle, WA

LLI Sample # WW 6497927
LLI Group # 1280769
Account # 11260

Project Name: 209335

Collected: 12/09/2011 09:30 by JP

Chevron

6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

Submitted: 12/13/2011 09:35

Reported: 12/30/2011 09:36

45S10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	SW-846 8021B		ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Petroleum Hydrocarbons	ECY 97-602 NWTPH-Dx modified		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
The reverse surrogate, capric acid, was present at <1%.					
Metals	SW-846 6020		ug/l	ug/l	
06035	Lead	7439-92-1	2.1	0.080	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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11353A94A	12/20/2011 01:00	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11353A94A	12/20/2011 01:00	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11353A94A	12/20/2011 01:00	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530026A	12/23/2011 10:59	Michele D Hamilton	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530026A	12/20/2011 08:00	Kerrie A Freeburn	1
06035	Lead	SW-846 6020	1	113486050003A	12/16/2011 09:00	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113486050003	12/15/2011 09:20	Denise K Connors	1

Quality Control Summary

 Client Name: Chevron
 Reported: 12/30/11 at 09:36 AM

Group Number: 1280769

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11353A94A	Sample number(s): 6497923-6497927							
Benzene	N.D.	0.5	ug/l	100	95	80-120	5	30
Ethylbenzene	N.D.	0.5	ug/l	100	95	80-120	5	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Toluene	N.D.	0.5	ug/l	95	90	80-120	5	30
Total Xylenes	N.D.	1.5	ug/l	102	98	80-120	3	30
Batch number: 113530006A	Sample number(s): 6497924, 6497926							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	54	53	50-120	2	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113530026A	Sample number(s): 6497925, 6497927							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	59	58	50-120	2	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113486050003A	Sample number(s): 6497924-6497927							
Lead	N.D.	0.080	ug/l	111		90-115		

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113486050003A	Sample number(s): 6497924-6497927 UNSPK: P495807 BKG: P495807								
Lead	106	107	83-120	1	20	1.0	1.0	3 (1)	20

Surrogate Quality Control

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

Analysis Name: Method 8021 Water Master
 Batch number: 11353A94A
 Trifluorotoluene-P Trifluorotoluene-F

6497923	85	76
6497924	87	100

*- 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: 12/30/11 at 09:36 AM

Group Number: 1280769

Surrogate Quality Control

6497925	84	78
6497926	86	94
6497927	85	85
Blank	85	86
LCS	85	92
LCS D	85	94

Limits: 58-146 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113530006A
Orthoterphenyl

6497924	68
6497926	69
Blank	63
LCS	69
LCS D	67

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113530026A
Orthoterphenyl

6497925	76
6497927	66
Blank	77
LCS	75
LCS D	72

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



For Lancaster Laboratories use only
 Acct. #: 11260 Group # 1280769 Sample #: 0497923-27

Facility #: <u>SS #209335-OML G-R#386750</u> Site Address: <u>1225 N. 45th Street, SEATTLE, WA</u> Chevron PM: <u>MGA</u> Lead Consultant: <u>SAICML</u> Large Consultant/Office: <u>G R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568</u> Consultant Prj. Mgr.: <u>Deanna L. Harding (deanna@grinc.com)</u> Consultant Phone #: <u>925-551-7555</u> Fax #: <u>925-551-7899</u> Sampler: <u>J. Payne</u>				Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analyses Requested <input checked="" type="checkbox"/> Preservation Codes BTEX + <input type="checkbox"/> 8027 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan Oxygenates NWTPH GX NWTPH DX <input checked="" type="checkbox"/> Silica Gel Cleanup Lead Total <input checked="" type="checkbox"/> Method <u>6020</u> <input type="checkbox"/> WAPPH <input type="checkbox"/> WAEPPH NWTPH H CID <input type="checkbox"/> quantification										SCR #: _____ <input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits							
Sample Identification		Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers										Comments /Remarks			
<u>P.A.</u>		<u>12-9-11</u>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<u>2</u>										Please forward the lab results directly to the Lead Consultant and cc: G-R.			
<u>MW-6</u>			<u>11:00</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<u>6</u>													
<u>MW-8</u>			<u>11:40</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<u>6</u>													
<u>MW-9</u>			<u>10:15</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<u>6</u>													
<u>MW-10</u>			<u>09:30</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<u>6</u>													
Turnaround Time Requested (TAT) (please circle) <input checked="" type="radio"/> 8TD. TAT 72 hour 48 hour <input type="radio"/> 24 hour 4 day 5 day				Relinquished by: <u>[Signature]</u>				Date	Time	Received by:				Date	Time								
Data Package Options (please circle if required) EDF/EDD <input type="radio"/> QC Summary Type I - Full <input type="radio"/> Type VI (Raw Data)				Relinquished by: _____				Date	Time	Received by:				Date	Time								
Relinquished by Commercial Carrier: UPS <input checked="" type="radio"/> FedEx Other _____				Relinquished by: _____				Date	Time	Received by: <u>[Signature]</u>				Date	Time								
Temperature Upon Receipt: <u>0.8-2.6</u> C°				Relinquished by: _____				Received by: _____				Custody Seals Intact? <input checked="" type="radio"/> Yes <input type="radio"/> No											

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)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	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.

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