

**Chevron Environmental
Management Company**

**Annual Groundwater Monitoring
Report 2012**

Former Chevron Bulk Plant No. 100-1327
Facilities North / King County (Metro)
Seattle, Washington

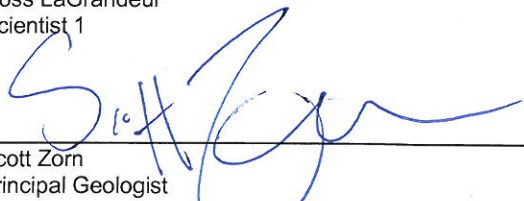
May 1, 2013

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Facilities North / King County
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Seattle, Washington



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Our Ref.:
B0045799

Date:
May 1, 2013

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1.0 Introduction

On behalf of Chevron Environmental Management Company (Chevron), ARCADIS US, Inc. (ARCADIS), has prepared this report to document the annual 2012 groundwater sampling events for former Chevron Bulk Plant No. 100-1327 (the site) located at Facilities North / King County (Metro), Seattle, Washington. The site and surrounding area are shown on **Figure 1**. This report summarizes the groundwater gauging and sampling events conducted by Gettler-Ryan, Inc. (Gettler Ryan) and ARCADIS in 2012.

Groundwater monitoring is typically conducted annually and groundwater gauging is conducted quarterly at the site, however, in 2012, five gauging events and three sampling events occurred. On March 23 and June 1, 2012, Gettler Ryan conducted groundwater gauging events. On June 21, 2012, September 20, 21 and 26, 2012 (one event) and December 26, 2012, ARCADIS conducted quarterly groundwater sampling and gauging activities.

2.0 Groundwater Monitoring

2.1 Groundwater Gauging Methods

Discrete groundwater gauging was conducted during the first two quarters of 2012 on March 23 and June 1. Groundwater gauging was also conducted in conjunction with sampling activities on June 21, September 20, 21 and 26 and December 26, 2012. Site monitoring wells were gauged with an oil/water interface probe to determine depth to water and to ascertain if light non aqueous phase liquid (LNAPL) was present.

The wells were gauged in order from lowest historical concentrations of petroleum constituents to highest in order to prevent cross contamination. Non-disposable groundwater gauging equipment was decontaminated prior to and after each use with a detergent solution and rinsed in potable water. Field notes taken during the groundwater monitoring events and gauging activities are included as **Appendix A**.

2.2 Groundwater Elevation and Flow Direction

On March 23, 2012, groundwater monitoring wells MW-3, MW-9, MW-27, SMPN-1, SMPN-2 and SMPN-3 were gauged to determine groundwater elevations and the presence of LNAPL. LNAPL was present in monitoring well MW-3 at a thickness of 0.10 foot, MW-9 at a thickness of 0.20 foot, MW-27 at a thickness of 0.03 foot, SMPN-

1 at a thickness of 0.02 foot and SMPN-2 at a thickness of 0.02 foot. During the March 23, 2012 gauging event, depth to groundwater ranged between 8.12 feet below top of casing (btoc) in monitoring well SMPN-2 to 12.00 feet btoc in monitoring well MW-3. Groundwater elevations ranged from 25.51 feet above mean sea level (msl) to 26.07 feet above msl in monitoring wells SMPN-3 and MW-9, respectively. Groundwater elevation could not be calculated for MW-3 because it was not surveyed when top of casing elevations were resurveyed in May, 2011. Compliance wells for the north yard include MW-19, MW-20, and MW-21. Because MW-3 is not a compliance well, and is located within the Touchstone building, Chevron requests monitoring of this well be discontinued during future LNAPL gauging events.

On June 1, 2012, groundwater monitoring wells MW-9, MW-27, SMPN-1, SMPN-2 and SMPN-3 were gauged to determine groundwater elevations at the site. Well MW-3 was inaccessible. LNAPL was present in monitoring well MW-9 at a thickness of 0.20 foot, MW-27 at a thickness of 0.20 foot and SMPN-2 at a thickness of 0.10 foot. During this gauging event, depth to groundwater ranged between 8.05 feet btoc in monitoring well SMPN-3 to 11.75 feet btoc in monitoring well MW-9. Groundwater elevations ranged from 25.76 feet above msl to 24.87 feet above msl in monitoring wells SMPN-3 and MW-9, respectively.

On June 21, 2012, groundwater monitoring wells MW-4, MW-7, MW-8A, MW-19, MW-20, MW-21, MW-25, MW-26, AGI-2 and MLU-1 were gauged to determine LNAPL thicknesses at the site. LNAPL was not present in any of the monitoring wells gauged during this event. During this gauging event, depth to groundwater ranged between 11.45 feet btoc in monitoring well MW-8A to 14.49 feet btoc in monitoring well MW-4. Groundwater elevations ranged from 18.86 feet above msl to 19.43 feet above msl in monitoring wells MW-8A and MW-4, respectively.

On September 20 and 21, 2012, groundwater monitoring wells MW-4, MW-7, MW-8A, MW-9, MW-19, MW-20, MW-21, MW-25, MW-26, MW-27, AGI-2, MLU-1, SMPN-1, SMPN-2 and SMPN-3 were gauged to determine groundwater elevations. LNAPL was present in monitoring wells MW-9 at a thickness of 0.52 foot, MW-27 at a thickness of 0.23 foot, SMPN-1 at a thickness of 0.18 foot and SMPN-2 at a thickness of 0.16 foot. During this event, depth to groundwater ranged between 11.11 feet btoc in monitoring well SMPN-2 to 16.59 feet btoc in monitoring well MW-4. Groundwater elevations ranged from 17.32 feet above msl to 22.89 feet above msl in monitoring wells MW-4 and MW-27, respectively.

On December 26, 2012, groundwater monitoring wells MW-4, MW-7, MW-8A, MW-9, MW-19, MW-20, MW-21, MW-24, MW-25, MW-26, MW-27, AGI-2, MLU-1, SMPN-1, SMPN-2 and SMPN-3 were gauged to determine groundwater elevations and the presence of LNAPL. LNAPL was present in monitoring well MW-9 at a thickness of 1.00 foot and MW-27 at a thickness of 0.03 foot. During the December 2012 gauging event, depth to groundwater ranged between 6.44 feet btoc in monitoring well MW-22 to 22.42 feet btoc in monitoring well MW-24. Groundwater elevations ranged from 15.46 feet above msl to 47.35 feet above msl in monitoring wells MW-7 and MW-24, respectively.

Water table elevation data at the site during the June 21, September 20 and 21, and December 26, 2012 event indicate groundwater flow direction is toward the southwest. The historical groundwater flow direction has seasonally fluctuated from the southeast toward the southwest. Current and historical groundwater elevation data are included in **Table 1**. Historic and current LNAPL thicknesses and removal data are presented in **Table 2**. The horizontal hydraulic gradient present on site is approximately 0.05 ft/ft. The gradient in the offsite upgradient area is much steeper, as this area is 30 feet higher in elevation than the onsite area. The Groundwater Elevation Contour Map for June 21, September 20 and 21, and December 26, 2012 monitoring well gauging data are included on **Figures 2, 3 and 4**, respectively.

2.3 Groundwater Sampling Methods

The quarterly 2012 groundwater monitoring events were conducted on June 21, September 20, 21 and 26 and December 26, 2012. During these events groundwater samples were collected from monitoring wells MW-4, MW-7, MW-8A, MW-19, MW-20, MW-21, MW-25, MW-26, AGI-2 and MLU-1. Sampling was conducted in accordance with low flow purge methodology, using a peristaltic pump and disposable tubing. Flow rates used during sampling ranged from approximately 200 to 500 milliliters per minute (mL/min) thereby minimizing water level drawdown in the well. During low flow purging, field indicator parameters including pH, specific conductivity and temperature were monitored using a water quality meter with a flow-through measurement cell. Groundwater was considered stabilized when pH readings remained within 0.1 units, and specific conductivity and temperature readings remained within 3%. The flow-through measurement cell was then disconnected from the disposable tubing and sample containers were filled directly from the tubing. After the samples were collected in appropriate laboratory bottles they were labeled, stored in a cooler packed with ice, and submitted under proper chain-of-custody procedures to Lancaster

Laboratories (Lancaster) in Lancaster, Pennsylvania. Groundwater samples were submitted to the analytical laboratory for one or more of the following analyses:

- Benzene, toluene, ethylbenzene and naphthalene by EPA method 8021B
- carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by EPA 8270C SIM
- Dissolved lead and arsenic by EPA method 6020

For all three events, cPAHs were collected. The cPAHs were collected two ways, with field filtering and unfiltered. During the September event, the cPAHs collected on September 21 were all unfiltered, therefore on September 26, cPAHs were re-sampled to include both filtered and unfiltered samples. A duplicate groundwater sample DUP-1 was collected during each of the events and submitted blind to the laboratory for the above analyses. Analytical results for petroleum hydrocarbons and metals are presented in **Table 1**, **Table 3** and on **Figure 2**, **Figure 3** and **Figure 4**.

2.4 Groundwater Analytical Results

Groundwater cleanup levels at the site were based on Method B surface water cleanup levels (CULs) (Foster Wheeler, 1998). The Method B surface water CULs for specific constituents of concern at the site include:

Constituents of Concern	Groundwater CUL	Units
Benzene	43	µg/L
Toluene	48,500	µg/L
Ethylbenzene	6,910	µg/L
Naphthalene	9,880	µg/L
Benzo(a)anthracene	0.0296	µg/L
Benzo(a)pyrene	0.0296	µg/L
Benzo(b)fluoranthene	0.0296	µg/L
Benzo(k)fluoranthene	0.0296	µg/L
Chrysene	0.0296	µg/L
Dibenz(a,h)anthracene	0.0296	µg/L
Indeno(1,2,3-cd)pyrene	0.0296	µg/L
Arsenic	0.0982	µg/L
Lead	5	µg/L

During the June 21, 2012 quarterly groundwater sampling was only conducted for cPAHs and filtered cPAHs from monitoring wells MW-4, MW-7, MW-8A, MW-19, MW-

20, MW-21, MW-25, MW-26, AGI-2 and MLU-1. This sampling was not intended to be the annual groundwater event, which was conducted in September; it was conducted to further assess cPAH impacts at the site. Groundwater sampled from one monitoring well, MW-4, contained concentrations greater than the MTCA Method B Surface Water CULs. MW-4 contained concentrations of benzo (a) anthracene, benzo (a) pyrene, benzo (b) fluoranthene and chrysene greater than the MTCA Method B Surface Water CULs (0.032 micrograms per liter [$\mu\text{g/L}$], 0.037 $\mu\text{g/L}$, 0.039 $\mu\text{g/L}$ and 0.035 $\mu\text{g/L}$, respectively). Those four constituents of concern (COCs) were not detected above the laboratory detection limit (DL) in the filtered samples collected at the same time. During this event, no other wells contained concentrations greater than the Method B surface water CULs. Analytical results for cPAHs are presented in **Table 3**.

During the annual sampling event conducted on September 20, 21 and 26, 2012 event, groundwater was sampled for benzene, toluene, ethylbenzene, naphthalene, filtered and unfiltered cPAHs as well as filtered metals, arsenic and lead, from monitoring wells MW-4, MW-7, MW-8A, MW-19, MW-20, MW-21, MW-25, MW-26, AGI-2 and MLU-1. Groundwater samples collected from wells MW-7 and AGI-2 contained concentrations of benzene (46 $\mu\text{g/L}$ and 61.0 $\mu\text{g/L}$, respectively) greater than the MTCA Method B Surface Water CUL. Dissolved arsenic was detected at levels greater than the MTCA Method B Surface Water CUL in every well sampled. Arsenic concentrations ranged from 15.5 $\mu\text{g/L}$ in MW-21 to not detected above the laboratory DL of 0.40 $\mu\text{g/L}$ in samples collected from wells MW-4 and MLU-1, which is greater than the cleanup level. No other COCs were detected at concentrations greater than the MTCA Method B Surface Water CULs. Analytical results are presented on **Figure 3** and in **Table 1** and **Table 3**.

During the December 26, 2012 event, groundwater was sampled for benzene, toluene, ethylbenzene and naphthalene from monitoring wells MW-4, MW-7, MW-8A, MW-19, MW-20, MW-21, MW-25, MW-26, AGI-2 and MLU-1. No wells contained concentrations of these COCs greater than the MTCA Method B Surface Water CULs. Analytical results are presented on **Figure 4** and in **Table 1**.

3.0 Conclusions

The groundwater elevation data collected during the 2012 monitoring events indicate groundwater flow direction and horizontal hydraulic gradient to be generally consistent with historical data. Concentrations of the constituents of concern in the groundwater samples collected during the 2012 events are generally consistent with historical data. LNAPL was detected in monitoring wells MW-3, MW-9, MW-27,

SMPN-1 and SMPN-2 during gauging activities, which is generally consistent with historic data.

Annual 2013 groundwater sampling is scheduled to be conducted in the second half of 2013 with quarterly gauging and product removal by ARCADIS. This event is scheduled to be conducted at the request of DOW to allow comparison of groundwater conditions with the Gasworks Park site. Annual 2014 groundwater sampling will most likely be scheduled in the third quarter, as it has previously been conducted. If you have any questions or would like to discuss this further, please contact ARCADIS at 206.726.4742.

4.0 References

Foster Wheeler Environmental Corporation. 1998. *Draft Cleanup Action Plan Former Chevron Bulk Plant 100-1327 Facilities North/King County Metro Transit Lake Union Site*. (November 24, 1998).

ARCADIS

Tables

Table 1
Groundwater Monitoring and Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-3										
08/11/99	104.07	--	--	0.00	--	168	4.29	20.60	--	3.34
10/21/99	104.07	--	--	0.00	--	149	<3.25	<5.9	--	0.54 ⁶
10/22/99	104.07	--	--	0.00	--	149	<2.30	<4.00	--	--
05/24/01	104.07	10.25	94.03	0.26	--	--	--	--	--	--
06/27/01	104.07	--	--	0.00	--	--	--	--	--	--
03/18/02	104.07	9.28	95.34	0.69	--	--	--	--	--	--
12/21/02	104.07	--	--	0.00	--	--	--	--	--	--
03/26/03	104.07	7.02	97.05	0.00	--	--	--	--	--	--
06/26/03	104.07	11.49	93.38	1.00	--	--	--	--	--	--
07/21/03	104.07	--	--	0.00	--	--	--	--	--	--
08/28/03	104.07	--	--	0.00	--	--	--	--	--	--
10/16/03	104.07	13.89	92.05	2.34	--	--	--	--	--	--
11/21/03	104.07	--	--	0.00	--	--	--	--	--	--
12/17/03	104.07	11.02	93.65	0.75	--	--	--	--	--	--
01/29/04	104.07	10.59	94.10	0.77	--	--	--	--	--	--
02/18/04	104.07	10.32	94.19	0.55	--	--	--	--	--	--
03/30/04	104.07	9.93	94.66	0.65	--	--	--	--	--	--
09/22/04	104.07	11.35	93.31	0.74	--	--	--	--	--	--
03/15/05	104.07	12.98	92.82	2.16	--	--	--	--	--	--
09/28/05	104.07	11.25	--	<3.0	--	--	--	--	--	--
03/29/06	104.07	12.40	94.58**	3.64	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	
03/21/07	104.07	10.67	94.63**	1.54	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	
03/25/08	104.07	10.38	94.21**	0.65	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	
09/08-09/08 ¹	104.07	11.02	93.43**	0.47	1.50 ⁵	--	--	--	--	--
12/11/08 ¹	104.07	12.10	93.02**	1.31	2.50 ⁵	--	--	--	--	--
03/30-31/09 ¹	104.07	9.70	94.37	0.00	--	--	--	--	--	--
06/15/09 ¹	104.07	10.97	94.04**	1.18	2.50 ⁵	--	--	--	--	--
09/10-11/09 ¹	104.07	12.21	92.88**	1.27	1.66 ⁵	--	--	--	--	--
02/23/10 ¹	104.07	11.25	94.82**	2.50	1.75 ⁵	--	--	--	--	--
03/15/10 ¹	104.07	11.25	94.94**	2.65	2.50 ¹²	--	--	--	--	--
09/15/10	104.07	INACCESSIBLE	--	--	--	--	--	--	--	--
12/04/10	104.07	INACCESSIBLE	--	--	--	--	--	--	--	--
03/23/12	104.07	12.00	92.15**	0.10	0.50	--	--	--	--	--
06/01/12	104.07	INACCESSIBLE	--	--	--	--	--	--	--	--
MW-4										
08/10/99	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
10/20/99	--	--	--	0.00	--	--	--	--	--	--
07/26/01	--	15.46	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00

Table 1
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Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-4 (cont)										
10/11/02	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	--
12/31/02	--	16.88	--	0.00	--	<0.500	<0.500	<0.500	--	--
02/27/03	--	16.22	--	0.00	--	<0.500	<0.500	<0.500	--	--
03/26/03	--	15.38	--	0.00	--	<0.500	<0.500	<0.500	--	--
04/28/03	--	15.12	--	0.00	--	<0.500	0.536	<0.500	--	--
05/30/03	--	15.02	--	0.00	--	<0.500	<0.500	<0.500	--	--
06/25/03	--	15.39	--	0.00	--	<0.500	<0.500	<0.500	--	<0.100
09/16/03	--	16.76	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
12/15/03	--	16.8	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/25/04	--	15.85	--	0.00	--	<0.500	<0.500	<0.500	--	<0.119
09/22/04	--	15.94	--	0.00	--	--	--	--	--	--
03/14/05	--	16.26	--	0.00	--	--	--	--	--	--
03/29/06	--	15.71	--	0.00	--	--	--	--	--	--
03/21/07	--	15.77	--	0.00	--	0.590	<0.500	<0.500	--	<5.00
03/25/08	--	15.78	--	0.00	--	<0.5	1.2	<0.5	--	0.022
09/08-09/08	--	15.91	--	0.00	--	<0.5	<0.5	<0.5	--	<1.0
12/11/08	--	MONITORED/SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/30-31/09	--	15.54	--	0.00	--	<0.5	<0.5	<0.5	--	<1.0
09/10-11/09	--	16.39	--	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/15/10	--	12.67	--	0.00	--	0.6	<0.5	<0.5	--	<1.0
09/15/10	--	16.25	--	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/14/11	--	15.55	--	0.00	--	--	--	--	--	--
09/25/11	33.92	16.55	17.37	0.00	--	0.5	<0.2	<0.2	--	<1.0
10/10/11	33.92	16.20	17.72	0.00	--	--	--	--	--	--
06/21/12	33.92	14.49	19.43	0.00	--	--	--	--	--	--
09/20/12	33.92	16.60	17.32	0.00	--	--	--	--	--	--
09/21/12	33.92	16.59	17.33	0.00	--	<0.5	<0.5	<0.5	--	<0.030
12/26/12	33.92	16.62	17.30	0.00	--	<0.5	<0.5	<0.5	--	--
MW-7										
08/10/99	98.39	--	--	0.00	--	683	491	2550	--	673
10/20/99	98.39	--	--	0.00	--	172	80.4	177	--	--
07/26/01	98.39	12.61	85.78	0.00	12.61	162	58.5	314	--	149
04/03/02	98.39	13.03	85.36	0.00	13.03	58.0	22.2	346	--	96.2
07/02/02	98.39	12.13	86.26	0.00	12.13	46.9	9.88	158	--	--
09/03/02	98.39	13.76	84.63	0.00	13.76	42.0	21.9	153	--	--
09/03/02 (D)	98.39	13.76	84.63	0.00	13.76	88.8	37.2	498	--	--
10/11/02	98.39	14.87	83.52	0.00	14.87	41.4	15.8	145	--	--
03/26/03	98.39	13.12	85.27	0.00	13.12	10.1	15.6	108	--	--
04/28/03	98.39	12.33	86.06	0.00	12.33	31.5	35.5	664	--	--
05/30/03	98.39	11.76	86.63	0.00	11.76	7.34	11.6	106	--	--
06/25/03	98.39	13.14	85.25	0.00	13.14	16.4	27.4	446	--	34.6
09/16/03	98.39	13.93	84.46	0.00	13.93	< 50.0	78.6	1190	--	583

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1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-7 (cont)										
12/15/03	98.39	13.96	84.43	0.00	13.96	25.9	44.9	1470	--	550
03/21/07	98.39	UNABLE TO LOCATE	--	--	--	--	--	--	--	--
03/25/08	98.39	UNABLE TO LOCATE	--	--	--	--	--	--	--	--
09/08-09/08	98.39	UNABLE TO LOCATE	--	--	--	--	--	--	--	--
12/11/08	98.39	MONITORED SEMI-ANNUALLY	--	--	--	--	--	--	--	--
03/30-31/09	98.39	UNABLE TO LOCATE	--	--	--	--	--	--	--	--
09/10-11/09	98.39	UNABLE TO LOCATE	--	--	--	--	--	--	--	--
03/15/10 ¹¹	98.39	13.07	85.32	0.00	0.00	27	4.9	230	--	490
09/15/10	98.39	13.4	84.99	0.00	0.00	38	6	270	--	570
03/14/11	98.39	12.85	85.54	0.00	--	--	--	--	--	--
06/21/12	31.13	12.19	18.94	0.00	--	--	--	--	--	--
09/20/12	31.13	13.74	17.39	0.00	--	46	6.9	120	--	530
12/26/12	31.13	15.67	15.46	0.00	--	34	6.0	240	--	--
MW-8A										
12/15/03	97.60	13.32	84.28	0.00	--	14.8	2.46	37.7	--	8.61
03/25/04	97.60	12.24	85.36	0.00	--	12.0	1.33	2.54	--	0.267
09/23/04	97.60	12.30	85.30	0.00	--	14.8	0.757	2.00	--	0.319
09/23/04	(D) 97.60	12.30	85.30	0.00	--	13.3	0.671	1.75	--	0.319
03/14/05	97.60	12.68	84.92	0.00	--	8.3	1.72	4.54	--	3.61
03/29/06	97.60	12.14	85.46	0.00	--	<0.500	<0.500	<0.500	--	<1.0
03/21/07	97.60	12.21	85.39	0.00	--	<0.500	<0.500	<0.500	--	<5.00
03/25/08	97.60	12.13	85.47	0.00	--	<0.5	<0.5	<0.5	--	<1.0
09/08-09/08	97.87	12.32	85.55	0.00	--	<0.5	<0.5	<0.5	--	<1.0
12/11/08	97.87	MONITORED/SAMPLED SEMI-ANNUALLY	--	--	--	--	--	--	--	--
03/30-31/09	97.87	12.04	85.83	0.00	--	<0.5	<0.5	<0.5	--	<1.0
09/10-11/09	97.87	12.80	85.07	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/15/10	97.87	12.23	85.64	0.00	--	<0.5	<0.5	<0.5	--	1.1
09/15/10	97.87	12.66	85.21	0.00	--	<0.5	<0.5	3.00	--	<1.0
03/14/11	97.87	12.19	85.68	0.00	--	--	--	--	--	--
11/16/11	30.31	13.14	17.17	0.00	--	<0.2	<0.2	<0.2	--	<1.0
06/21/12	30.31	11.45	18.86	0.00	--	--	--	--	--	--
06/21/12	(D) 30.31	11.45	18.86	0.00	--	--	--	--	--	--
09/20/12	30.31	12.97	17.34	0.00	--	--	--	--	--	--
09/21/12	30.31	12.97	17.34	0.00	--	<0.5	<0.5	<0.5	--	<0.030
12/26/12	30.31	13.07	17.24	0.00	--	<0.5	<0.5	<0.5	--	--
MW-9										
08/11/99	103.67	--	--	0.00	--	<20.0	<20.0	46.7	--	129
10/21/99	103.67	--	--	0.00	--	<0.800	<0.500	20.5	--	110 ⁶
05/24/01	103.67	14.07	89.64	0.05	--	--	--	--	--	--
06/21/01	103.67	13.78	89.92	0.04	--	--	--	--	--	--
06/27/01	103.67	13.79	89.88	0.00	--	<5.00	<5.00	52.6	--	109
03/18/02	103.67	13.51	90.71	0.69	--	--	--	--	--	--
10/16/02	103.67	--	--	0.54	--	--	--	--	--	--
11/11/02	103.67	--	--	0.90	--	--	--	--	--	--
12/31/02	103.67	--	--	0.91	--	--	--	--	--	--

Table 1
Groundwater Monitoring and Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL† (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-9 (cont)										
02/27/03	103.67	--	--	0.02	--	--	--	--	--	--
03/26/03	103.67	--	--	0.09	--	--	--	--	--	--
04/28/03	103.67	13.25	90.48	0.07	--	--	--	--	--	--
05/30/03	103.67	13.52	90.22	0.09	--	--	--	--	--	--
06/26/03	103.67	13.90	89.80	0.04	--	--	--	--	--	--
07/21/03	103.67	--	--	0.21	--	--	--	--	--	--
08/28/03	103.67	--	--	0.23	--	--	--	--	--	--
10/16/03	103.67	15.98	88.15	0.57	--	--	--	--	--	--
11/21/03	103.67	--	--	0.01	--	--	--	--	--	--
12/17/03	103.67	--	--	0.00	--	--	--	--	--	--
01/29/04	103.67	14.16	89.53	0.03	--	--	--	--	--	--
02/18/04	103.67	11.11	92.70	0.17	--	--	--	--	--	--
03/25/04	103.67	13.66	90.01	0.00	--	6.71	2.56	39.5	--	168
03/30/04	103.67	13.80	89.96	0.11	--	--	--	--	--	--
09/22/04	103.67	9.52	94.17	0.03	--	--	--	--	--	--
03/15/05	103.67	14.81	89.09	0.29	--	--	--	--	--	--
09/28/05	103.67	15.31	88.56	0.25	--	--	--	--	--	--
03/29/06	103.67	13.26	90.62**	0.26	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
03/21/07	103.67	13.73	90.20**	0.32	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
03/25/08	103.67	13.93	89.74**	0.00	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
09/08-09/08 ¹	103.67	14.23	89.45**	0.01	--	20	<10 ²	16	--	37
12/11/08 ¹	103.67	15.16	88.55**	0.05	0.02 ⁵	SAMPLED SEMI-ANNUALLY			--	--
03/30-31/09 ¹	103.67	14.06	89.61	0.00	--	<20 ⁸	<50 ⁸	35	62	50
06/15/09 ¹	103.67	13.32	90.35	0.00	--	SAMPLED SEMI-ANNUALLY			--	--
09/10-11/09 ¹	103.67	14.80	88.87	0.00	--	<10 ⁸	<10 ⁸	16	--	36
02/23/10 ¹	103.67	13.10	90.81**	0.30	0.21 ⁵	--	--	--	--	--
03/15/10 ¹	103.67	13.33	90.52**	0.23	0.18 ⁵	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
9/15/10 ¹	103.67	15.05	89.06**	0.55	0.20 ⁵	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
12/4/10 ¹	103.67	14.50	89.27**	0.13	0.20 ⁵	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
3/14/2011 ¹	103.67	12.71	90.96	0.00	--	--	--	--	--	--
9/24/2011 ¹	36.46	14.62	21.84	0.00	--	--	--	--	--	--
12/08/2011 ¹	36.46	12.87	23.59	0.00	--	--	--	--	--	--
03/23/12	36.46	10.55	26.07**	0.20	0.50	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
06/01/12	36.46	11.75	24.87**	0.20	1.00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
09/20/12	36.46	14.47	22.41**	0.52	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
12/26/12	36.46	11.60	25.66**	1.00	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
MW-10										
08/11/99	100.30	--	--	0.00	--	226	292	625	--	121
10/21/99	100.30	--	--	0.00	--	431	455	838	--	--
04/12/00	100.30	7.34	92.96	0.00	--	662	542	749	--	105
06/27/00	100.30	8.95	91.35	0.00	--	325	168	136	--	64.5
09/28/00	100.30	10.08	90.22	0.00	--	437	339	291	--	32.7
01/15/01	100.30	10.16	90.14	0.00	--	352	266	137	--	63.6

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Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)	
MW-10 (cont)											
01/15/01	(D)	100.30	10.16	90.14	0.00	--	315	234	117	--	33.9
05/24/01		100.30	9.14	91.16	0.00	--	--	--	--	--	--
06/21/01		100.30	7.97	92.33	0.00	--	--	--	--	--	--
06/27/01		100.30	9.07	91.23	0.00	--	591	328	295	--	79.5
06/27/01	(D)	100.30	9.07	91.23	0.00	--	1,090	765	936	--	262
03/18/02		100.30	7.09	93.21	0.00	--	1,190	1,010	976	--	130
07/02/02		100.30	8.37	91.93	0.00	--	844	742	871	--	--
09/28/02		100.30	10.08	90.22	0.00	--	--	--	--	--	--
12/31/02		100.30	--	--	0.96	--	--	--	--	--	--
02/27/03		100.30	--	--	0.17	--	--	--	--	--	--
03/29/06		100.30	8.35	92.53	0.72	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
03/21/07		100.30	7.95	92.72	0.46	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
03/25/08		100.30	8.68	91.62	0.005	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
09/08-09/08 ¹		100.30	9.39	90.95**	0.05	0.20 ⁵	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
12/11/08 ¹		100.30	9.90	90.65**	0.31	1.00 ⁵	SAMPLED SEMI-ANNUALLY				--
03/30-31/09 ¹		100.30	8.44	92.05**	0.24	1.11 ⁵	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
06/15/09 ¹		100.30	8.31	92.16**	0.21	0.34 ⁵	SAMPLED SEMI-ANNUALLY				--
09/10-11/09 ¹		100.30	10.14	90.18**	0.02	0.00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
02/23/10 ¹		100.30	7.14	93.17**	0.01	0.00	--	--	--	--	--
03/15/10 ¹		100.30	7.24	93.06	0.00	0.00	1,200	250	980	--	110
9/15/10 ^{1,13}		100.30	9.48	90.82	0.00	0.00	970	180	920	--	130
12/04/10		100.30	UNABLE TO LOCATE	--	--	--	--	--	--	--	--
MW-11											
08/11/99		100.59	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.01
10/22/99		100.59	--	--	0.00	--	<0.500	<0.500	<0.500	--	<0.0082
06/21/01		100.59	11.30	89.29	0.00	--	<1.00	<1.00	<1.00	--	<1.00
03/18/02		100.59	10.96	89.63	0.00	--	1.18	2.77	2.57	--	<1.00
09/16/03		100.59	13.03	87.56	0.00	--	<0.500	<0.500	<0.500	--	<1.00
12/15/03		100.59	13.92	86.67	0.00	--	<0.500	<0.500	<0.500	--	2.21
03/25/04		100.59	11.17	89.42	0.00	--	<0.500	<0.500	<0.500	--	<0.101
09/22/04		100.59	12.05	88.54	0.00	--	--	--	--	--	--
03/14/05		100.59	11.90	88.69	0.00	--	--	--	--	--	--
03/29/06		100.59	10.32	90.27	0.00	--	--	--	--	--	--
03/21/07		100.59	8.36	92.23	0.00	--	<0.500	<0.500	<0.500	--	<5.01
03/25/08		100.59	9.38	91.21	0.00	--	<0.5	<0.5	<0.5	--	0.060
03/25/08	(D)	100.59	9.38	91.21	0.00	--	<0.5	<0.5	<0.5	--	0.058

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1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-11(cont)										
09/08-09/08	100.59	10.35	90.24	0.00	--	<0.5	<0.5	<0.5	--	<1.0
12/11/08	100.59	10.63	89.96	0.00	--	SAMPLED SEMI-ANNUALLY		--	--	--
03/30-31/09	100.59	9.60	90.99	0.00	--	<0.5	<0.5	<0.5	--	<1.0
06/15/09	100.59	INACCESSIBLE	--	--	--	--	--	--	--	--
09/10-11/09	NP ⁹	8.07	92.54	0.00	--	<0.5	<0.5	<0.5	--	<1.0
02/23/10	100.61	8.60	92.01	0.00	--	--	--	--	--	--
03/15/10	100.61	8.75	91.86	0.00	--	<0.5	<0.5	<0.5	--	<1.0
09/15/10	100.61	10.27	90.34	0.00	--	<0.5	<0.5	<0.5	--	<1.0
12/04/10	100.61	10.37	90.24	0.00	--	--	--	--	--	--
03/14/11	100.61	9.33	91.28	0.00	--	--	--	--	--	--
MW-12										
08/11/99	100.11	--	--	0.00	--	1590	218	466	--	87.5
10/21/99	100.11	--	--	0.00	--	491	1200	230	--	6.8 ⁶
03/25/04	101.11	7.54	93.57	0.00	--	510	294	454	--	98.5
03/29/06	100.11	7.51	92.60	0.00	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL		--	--	--
03/21/07	100.11	7.32	92.79	0.00	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL		--	--	--
03/25/08	100.11	8.09	92.02	0.00	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL		--	--	--
09/08-09/08	100.11	8.65	91.46	0.00	--	530	130	230	--	65
12/11/08 ¹	100.11	8.62	91.50**	0.01	--	SAMPLED SEMI-ANNUALLY		--	--	--
03/30-31/09 ¹	100.11	7.54	92.58**	0.01	--	750	640	270	--	170
06/15/09	100.11	7.92	92.19	0.00	--	--	--	--	--	--
09/10-11/09 ¹	100.11	9.23	90.89**	0.01	--	510	140	180	--	44
02/23/10 ¹	100.11	6.90	93.21	0.00	--	--	--	--	--	--
03/15/10 ¹	100.11	7.23	92.88	0.00	--	630	260	250	--	110
09/15/10 ^{1,13}	100.11	8.62	91.49	0.00	--	490	130	230	--	67
12/04/10	100.11	LOCATED BEHIND LOCKED GATE			--	--	--	--	--	--
MW-14										
07/26/01	98.87	13.05	85.82	0.00	--	<1.00	<1.00	<1.00	--	<1.00
03/29/06	98.87	13.32	85.55	0.00	--	--	--	--	--	--
03/21/07	98.87	13.33	85.54	0.00	--	--	--	--	--	--
03/25/08	98.87	13.38	85.49	0.00	--	--	--	--	--	--
09/08-09/08	98.87	13.50	85.37	0.00	--	--	--	--	--	--
12/11/08	98.87	MONITORED SEMI-ANNUALLY			--	--	--	--	--	--
03/30-31/09	98.87	13.10	85.77	0.00	--	--	--	--	--	--
09/10-11/09	98.87	14.00	84.87	0.00	--	--	--	--	--	--
03/15/10	98.87	13.49	85.38	0.00	--	--	--	--	--	--
09/15/10	98.87	UNABLE TO LOCATE - COVERED BY LANDSCAPING			--	--	--	--	--	--

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1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-15										
08/10/99	98.83	--	--	0.00	--	3.28	2.89	35.4	--	12.5
10/20/99	98.83	13.96	84.87	0.00	--	6.92	57.1	47.7	--	1.4 ⁶
07/26/01	98.83	13.04	85.79	0.00	--	13.8	9.00	18.1	--	10.30
03/18/02	98.83	13.62	85.21	0.00	--	<1.00	1.49	2.46	--	<1.01
06/26/03	98.83	13.05	85.78	0.00	--	0.719	<0.500	0.612	--	--
09/16/03	98.83	14.35	84.48	0.00	--	2.85	30.6	39.6	--	42.2
03/29/06	98.83	13.00	85.83	0.00	--	--	--	--	--	--
03/21/07	98.83	13.33	85.50	0.00	--	--	--	--	--	--
03/25/08	98.83	13.36	85.47	0.00	--	--	--	--	--	--
09/08-09/08	98.83	13.46	85.37	0.00	--	--	--	--	--	--
12/11/08	98.83	MONITORED SEMI-ANNUALLY		--	--	--	--	--	--	--
03/30-31/09	98.83	13.12	85.71	0.00	--	--	--	--	--	--
09/10-11/09	98.83	13.97	84.86	0.00	--	--	--	--	--	--
03/15/10	98.83	15.50	83.33	0.00	--	--	--	--	--	--
09/15/10	98.83	15.87	82.96	0.00	MONITORING ONLY	--	--	--	--	--
03/14/11	98.83	14.99	83.84	0.00	--	--	--	--	--	--
MW-19										
08/11/99	98.10	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
10/20/99	98.10	--	--	0.00	--	<0.500	<0.500	<0.500	--	<0.021
06/21/01	98.10	11.99	86.11	0.00	--	<1.00	<1.00	<1.00	--	<1.00
06/26/03	98.10	12.02	86.08	0.00	--	<0.500	<0.500	<0.500	--	<0.100
09/16/03	98.10	13.67	84.43	0.00	--	<0.500	<0.500	<0.500	--	<1.00
12/15/03	98.10	13.60	84.50	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/26/04	98.10	12.74	85.36	0.00	--	<0.500	<0.500	<0.500	--	0.197
03/26/04	(D)	98.10	12.74	85.36	0.00	<0.500	<0.500	<0.500	--	0.112
09/23/04	98.10	12.82	85.28	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/14/05	98.10	13.16	84.94	0.00	--	<0.500	<0.500	<0.500	--	<0.100
03/14/05	(D)	98.10	13.16	84.94	0.00	<0.500	<0.500	<0.500	--	<0.100
03/29/06	98.10	12.63	85.47	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/29/06	(D)	98.10	12.63	85.47	0.00	<0.500	<0.500	<0.500	--	<1.00
03/21/07	98.10	12.71	85.39	0.00	--	<0.500	<0.500	<0.500	--	<5.00
03/21/07	(D)	98.10	12.71	85.39	0.00	<0.500	<0.500	<0.500	--	<5.00
03/25/08	98.10	12.70	85.40	0.00	--	<0.5	<0.5	<0.5	--	0.026
03/25/08	(D)	98.10	12.70	85.40	0.00	<0.5	<0.5	<0.5	--	0.023
09/08-09/08	98.10	12.81	85.29	0.00	--	<0.5	<0.5	<0.5	--	<5.03
12/11/08	98.10	MONITORED/SAMPLED SEMI-ANNUALLY		--	--	--	--	--	--	--

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Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-19 (cont)										
03/30-31/09	98.10	12.57	85.53	0.00	--	<0.5	<0.5	<0.5	--	<1.0
09/10-11/09	98.10	13.30	84.80	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/15/10	98.10	12.85	85.25	0.00	--	<0.5	<0.5	<0.5	--	<1.0
09/15/10	98.10	13.18	84.92	0.00	--	<0.5	<0.5	<0.5	--	<1.0
11/16/11	30.87	13.62	17.25	0.00	--	<0.2	<0.2	<0.2	--	<1.0
06/21/12	30.87	11.93	18.94	0.00	--	--	--	--	--	--
09/20/12	30.87	13.50	17.37	0.00	--	<0.5	<0.5	<0.5	--	0.083
12/26/12	30.87	13.55	17.32	0.00	--	<0.5	<0.5	<0.5	--	--
MW-20										
08/11/99	98.74	--	--	0.00	--	57.7	2.19	148	--	82.1
10/20/99	98.74	13.99	84.75	0.00	--	71.8	5.69	184	--	25 ⁶
09/28/00	98.74	13.41	85.33	0.00	--	--	--	--	--	--
06/21/01	98.74	12.61	86.13	0.00	--	1.66	<1.00	2.68	--	<1.00
03/19/02	98.74	13.69	85.05	0.00	--	<1.00	<1.00	3.48	--	1.77
03/19/02 (D)	98.74	13.69	85.05	0.00	--	<1.00	<1.00	3.3	--	2.21
06/26/03	98.74	12.92	85.82	0.00	--	26.5	2.28	61.0	--	20.9 ⁶
09/16/03	98.74	14.29	84.45	0.00	--	28.9	3.04	35.7	--	12.5
12/15/03	98.74	14.34	84.40	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/26/04	98.74	13.36	85.38	0.00	--	0.877	<0.500	0.731	--	<0.100
03/14/05	98.74	13.80	84.94	0.00	--	--	--	--	--	--
03/29/06	98.74	13.26	85.48	0.00	--	--	--	--	--	--
03/21/07	98.74	13.33	85.41	0.00	--	<0.500	<0.500	<0.500	--	<5.00
03/25/08	98.74	13.33	85.41	0.00	--	0.5	<0.5	<0.5	--	0.019
09/08-09/08	98.74	13.42	85.32	0.00	--	7.0	1.7	1.2	--	<5.0 ⁴
12/11/08	98.74	MONITORED/SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/30-31/09	98.74	INACCESSIBLE			--	--	--	--	--	--
09/10-11/09	98.74	13.92	84.82	0.00	--	1.4	0.8	1.1	--	<5.0 ¹⁰
03/15/10	98.74	13.46	85.28	0.00	--	<0.5	<0.5	<0.5	--	2.1
09/15/10	98.74	13.79	84.95	0.00	--	1.60	1.00	1.20	--	4.5
11/16/11 (D)	31.49	14.22	17.27	0.00	--	1.50	0.90	0.80	--	8.40
06/21/12	31.49	12.53	18.96	0.00	--	--	--	--	--	--
09/20/12	31.49	14.11	17.38	0.00	--	3.20	1.30	1.40	--	0.47
12/26/12	31.49	14.20	17.29	0.00	--	<0.5	<0.5	<0.5	--	--
MW-21										
08/10/99	98.52	--	--	0.00	--	12.1	1.93	<1.00	--	<1.00
10/19/99	98.52	--	--	0.00	--	9.69	1.49	<0.750	--	--
06/21/01	98.52	12.31	86.21	0.00	--	2.46	<1.00	<1.00	--	<1.00
06/21/01 (D)	98.52	12.31	86.21	0.00	--	2.70	<1.00	<1.00	--	1.76
03/18/02	98.52	13.36	85.16	0.00	--	10.5	1.25	<1.00	--	4.09
06/26/03	98.52	12.66	85.86	0.00	--	5.82	0.687	0.850	--	1.37
09/16/03	98.52	13.98	84.54	0.00	--	5.43	0.86	<0.500	--	7.01
12/15/03	98.52	14.05	84.47	0.00	--	4.95	0.88	<0.500	--	12.4

Table 1
Groundwater Monitoring and Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-21 (cont)										
03/26/04	98.52	13.08	85.44	0.00	--	5.28	0.854	<0.500	--	10.1
09/23/04	98.52	13.19	85.33	0.00	--	5.45	0.806	<0.500	--	<5
03/14/05	98.52	13.51	85.01	0.00	--	4.55	0.693	<0.500	--	3.57
03/29/06	98.52	12.98	85.54	0.00	--	4.19	0.800	<0.500	--	4.01
03/21/07	98.52	13.00	85.52	0.00	--	4.31	0.860	<0.500	--	6.06
03/25/08	98.52	13.02	85.50	0.00	--	4.4	0.6	<0.5	--	12
09/08-09/08	98.52	13.14	85.38	0.00	--	6.0	0.6	<0.5	--	18
12/11/08	98.52	MONITORED/SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/30-31/09	98.52	12.86	85.66	0.00	--	6.0	0.8	0.6	--	15
09/10-11/09	98.52	13.63	84.89	0.00	--	5.1	0.7	<0.5	--	<15 ¹⁰
03/15/10	98.52	13.15	85.37	0.00	--	3.6	0.6	<0.5	--	<20 ¹⁰
09/15/10	98.52	13.51	85.01	0.00	--	2.50	0.50	<0.5	--	11.00
03/14/11	98.52	13.05	85.47	0.00	--	--	--	--	--	--
09/24/11	31.26	13.51	17.75	0.00	--	<0.2	<0.2	<0.2	--	<1.0
10/10/11	31.26	13.83	17.43	0.00	--	--	--	--	--	--
06/21/12	31.26	12.24	19.02	0.00	--	--	--	--	--	--
09/20/12	31.26	13.82	17.44	0.00	--	<7.0	0.7	<0.5	--	0.84
12/26/12	(D) 31.26	13.86	17.40	0.00	--	2.7	0.6	0.5	--	--
12/26/12	31.26	13.86	17.40	0.00	--	2.7	0.6	0.6	--	--
MW-22										
08/10/99	99.76	--	--	0.00	--	1,140	44.9	93.5	--	7.56
10/22/99	99.76	--	--	0.00	--	1,680	109	191	--	--
01/06/00	99.76	--	--	0.00	--	1,410	46.8	105	--	--
01/15/01	99.76	--	--	0.00	--	2,040	161	254	--	19.2
06/21/01	99.76	13.53	86.23	0.00	--	1,710	64.8	144	--	<50.0
03/18/02	99.76	14.41	85.35	0.00	--	1,920	85.5	242	--	21.3
07/02/02	99.76	13.56	86.20	0.00	--	2,000	84.9	288	--	--
09/03/02	99.76	14.95	84.81	0.00	--	2,020	66.8	312	--	--
12/31/02	99.76	15.22	84.54	0.00	--	2,360	159	385	--	--
06/25/03	99.76	13.91	85.85	0.00	--	1,950	84.4	273	--	--
09/16/03	99.76	15.15	84.61	0.00	--	2,590	189	425	--	<50.0
12/17/03	99.76	15.03	84.73	0.00	--	1,250	52.9	188	--	15.8
12/17/03	(D) 99.76	15.03	84.73	0.00	--	1,920	59	207	--	18.5
03/25/04	99.76	14.20	85.56	0.00	--	1,630	35.4	208	--	14.9
09/22/04	99.76	14.28	85.48	0.00	--	--	--	--	--	--
03/14/05	99.76	14.70	85.06	0.00	--	--	--	--	--	--
03/29/06	99.76	14.21	85.55	0.00	--	--	--	--	--	--
03/21/07	99.76	14.31	85.45	0.00	--	840	54.5	117	--	20.8
03/25/08	99.76	14.35	85.41	0.00	--	730	31	90	--	5.5
09/08-09/08	99.76	14.47	85.29	0.00	--	880	46	130	--	14
12/11/08	99.76	MONITORED/SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--

Table 1
Groundwater Monitoring and Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-22 (cont)										
03/30-31/09	99.76	14.09	85.67	0.00	--	830	37	98	--	7.3
09/10-11/09	99.76	15.02	84.74	0.00	--	1,100	42	130	--	10
03/15/10	99.76	14.46	85.30	0.00	--	720	25	70	--	5.0
09/15/10	99.76	14.82	84.94	0.00	--	820	50	100	--	6.9
03/14/11	99.76	14.25	85.51	0.00	--	--	--	--	--	--
MW-24										
03/21/07	--	23.01	--	0.00	--	<0.500	<0.500	<0.500	--	<5.00
03/25/08	--	23.35	--	0.00	--	--	--	--	--	--
09/08-09/08	--	23.84	--	0.00	--	--	--	--	--	--
12/11/08	--	MONITORED SEMI-ANNUALLY			--	--	--	--	--	--
03/30-31/09	--	23.60	--	0.00	--	--	--	--	--	--
09/10-11/09	--	24.13	--	0.00	--	--	--	--	--	--
03/15/10	--	22.76	--	0.00	--	--	--	--	--	--
09/15/10	--	23.71	--	0.00	--	--	--	--	--	--
03/14/11	--	22.39	--	0.00	--	--	--	--	--	--
12/26/12	69.77	22.42	47.35	0.00	--	--	--	--	--	--
MW-25										
08/09/99	98.17	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
10/19/99	98.17	14.37	83.80	0.00	--	<0.500	<0.500	<0.500	--	<0.023
01/06/00	98.17	--	--	0.00	--	<0.500	<0.500	<0.500	--	--
07/27/00	98.17	12.41	85.76	0.00	--	<1.00	<1.00	<1.00	--	<1.00
09/29/00	98.17	13.16	85.01	0.00	--	--	--	--	--	--
09/29/00	98.17	13.16	85.01	0.00	--	--	--	--	--	--
07/26/01	98.17	12.65	85.52	0.00	--	<1.00	<1.00	<1.00	--	<1.00
03/19/02	98.17	13.12	85.05	0.00	--	2.06	<1.00	<1.00	--	<1.00
07/02/02	98.17	12.04	86.13	0.00	--	28.4	11.5	2.85	--	--
09/03/02	98.17	13.61	84.56	0.00	--	68.0	0.810	<0.500	--	--
10/11/02	98.17	--	98.17	0.00	--	61	<0.500	<0.500	--	--
12/31/02	98.17	13.97	84.20	0.00	--	0.557	<0.500	<0.500	--	--
03/26/03	98.17	13.34	84.83	0.00	--	3.20	0.617	<0.500	--	--
04/28/03	98.17	12.13	86.04	0.00	--	15.5	1.64	1.56	--	--
05/30/03	98.17	12.1	86.07	0.00	--	21.8	0.872	2.69	--	--
06/25/03	98.17	12.49	85.68	0.00	--	9.06	0.545	1.33	--	<0.100
09/15/03	98.17	13.78	84.39	0.00	--	<0.500	<0.500	<0.500	--	<1.00
12/15/03	98.17	13.88	84.29	0.00	--	<0.500	<0.500	<0.500	--	1.76
03/25/04	98.17	12.80	85.37	0.00	--	<0.500	<0.500	<0.500	--	<0.100
09/22/04	98.17	12.94	85.23	0.00	--	<0.500	<0.500	<0.500	--	<0.100

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Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-25 (cont)										
03/14/05	98.17	13.25	84.92	0.00	--	<0.500	<0.500	<0.500	--	<0.100
03/29/06	98.17	12.72	85.45	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/21/07	98.17	12.51	85.66	0.00	--	<0.500	<0.500	<0.500	--	<5.00
03/25/08	98.17	12.78	85.39	0.00	--	<0.5	<0.5	<0.5	--	0.013
09/08-09/08	98.17	12.89	85.28	0.00	--	<0.5	<0.5	<0.5	--	<1.0
12/11/08	98.17	MONITORED/SAMPLED SEMI-ANNUALLY								
03/30-31/09	98.17	12.60	85.57	0.00	--	<0.5	<0.5	<0.5	--	<1.0
09/10-11/09	98.17	13.41	84.76	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/15/10	98.17	12.95	85.22	0.00	--	<0.5	<0.5	<0.5	--	1.6
09/15/10	98.17	13.25	84.92	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/14/11	98.17	12.88	85.29	0.00	--	--	--	--	--	--
09/25/11	30.91	13.50	17.41	0.00	--	<0.2	<0.2	<0.2	--	<1.0
10/10/11	30.91	13.30	17.61	0.00	--	--	--	--	--	--
06/21/12	30.91	12.01	18.90	0.00	--	--	--	--	--	--
09/20/12	30.91	13.56	17.35	0.00	--	<0.5	<0.5	<0.5	--	0.054
12/26/12	30.91	13.76	17.15	0.00	--	<0.5	<0.5	<0.5	--	--
MW-26										
08/09/99	97.87	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
10/19/99	97.87	--	--	0.00	--	<0.500	<0.500	<0.500	--	<0.0099
01/06/00	97.87	13.78	84.09	0.00	--	0.621	<0.500	<0.500	--	--
04/12/00	97.87	12.12	85.75	0.00	--	<1.00	<1.00	<1.00	--	<1.00
06/27/00	97.87	12.55	85.32	0.00	--	<1.00	<1.00	<1.00	--	<1.00
07/26/01	97.87	12.15	85.72	0.00	--	<1.00	<1.00	<1.00	--	<1.00
03/19/02	97.87	12.79	85.08	0.00	--	<1.00	<1.00	<1.00	--	<1.00
12/31/02	97.87	13.97	83.90	0.00	--	<0.500	<0.500	<0.500	--	--
02/27/03	97.87	12.88	84.99	0.00	--	<0.500	<0.500	<0.500	--	--
03/26/03	97.87	13.12	84.75	0.00	--	<0.500	<0.500	<0.500	--	--
04/28/03	97.87	11.78	86.09	0.00	--	<0.500	<0.500	<0.500	--	--
05/30/03	97.87	11.73	86.14	0.00	--	<0.500	<0.500	<0.500	--	--
06/25/03	97.87	12.09	85.78	0.00	--	<0.500	<0.500	<0.500	--	<0.100
09/15/03	97.87	13.49	84.38	0.00	--	<0.500	<0.500	<0.500	--	<1.00
12/15/03	97.87	13.48	84.39	0.00	--	<0.500	<0.500	<0.500	--	<1.00
09/22/04	97.87	12.55	85.32	0.00	--	<0.500	<0.500	<0.500	--	<0.100
03/14/05	97.87	12.94	84.93	0.00	--	<0.500	<0.500	<0.500	--	<0.100
03/29/06	97.87	12.37	85.50	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/21/07	97.87	UNABLE TO LOCATE								
03/25/08	97.87	12.46	85.41	0.00	--	<0.5	<0.5	<0.5	--	0.011
09/08-09/08	97.87	12.59	85.28	0.00	--	<0.5	<0.5	<0.5	--	<1.0
12/11/08	97.87	MONITORED/SAMPLED SEMI-ANNUALLY								

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Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-26 (cont)										
03/30-31/09	97.87	12.25	85.62	0.00	--	<0.5	<0.5	<0.5	--	<1.0
09/10-11/09	97.87	13.01	84.86	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/15/10	97.87	12.60	85.27	0.00	--	<0.5	<0.5	<0.5	--	1.2
09/15/10	97.87	12.94	84.93	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/14/11	97.87	12.25	85.62	0.00	--	--	--	--	--	--
09/24/11	30.62	13.20	17.42	0.00	--	<0.2	<0.2	<0.2	--	<1.0
10/10/11	30.62	13.00	17.62	0.00	--	--	--	--	--	--
06/21/12	30.62	11.68	18.94	0.00	--	--	--	--	--	--
09/20/12	30.62	13.25	17.37	0.00	--	--	--	--	--	--
09/21/12	30.62	13.28	17.34	0.00	--	<0.5	<0.5	<0.5	--	<0.030
09/21/12	(D) 30.62	13.28	17.34	0.00	--	<0.5	<0.5	<0.5	--	<0.030
12/26/12	30.62	13.24	17.38	0.00	--	<0.5	<0.5	<0.5	--	--
MW-27										
09/13/99	101.17	--	--	--	--	10.8	<0.500	<1.00	--	<0.100
10/22/99	101.17	--	--	--	--	4.44	<0.500	<0.500	--	5.8 ⁶
01/06/00	101.17	--	--	--	--	10.5	<2.50	<2.50	--	--
05/24/01	101.17	11.11	90.64	0.73	--	--	--	--	--	--
06/27/01	101.17	10.07	91.72	0.72	--	--	--	--	--	--
03/18/02	101.17	9.07	92.16	0.07	--	--	--	--	--	--
10/16/02	101.17	--	--	0.05	--	--	--	--	--	--
12/31/02	101.17	--	--	0.02	--	--	--	--	--	--
06/26/03	101.17	11.08	90.29	0.25	--	--	--	--	--	--
07/21/03	101.17	--	--	0.46	--	--	--	--	--	--
08/28/03	101.17	--	--	0.21	--	--	--	--	--	--
10/16/03	101.17	5.97	95.20	0.00	--	--	--	--	--	--
11/21/03	101.17	--	--	0.00	--	--	--	--	--	--
12/17/03	101.17	--	--	0.00	--	--	--	--	--	--
03/29/06	101.17	9.14	92.03	0.00	--	--	--	--	--	--
03/21/07	101.17	7.91	93.27	0.01	--	--	--	--	--	--
03/25/08	101.17	10.57	90.60	0.00	--	--	--	--	--	--
09/08-09/08 ¹	101.17	10.83	90.48**	0.17	0.28 ⁵	--	--	--	--	--
12/11/08 ¹	101.17	11.19	89.99**	0.01	--	--	--	--	--	--
03/30-31/09 ¹	101.17	9.92	91.26**	0.01	--	--	--	--	--	--
06/15/09	101.17	9.67	91.51**	0.01	--	--	--	--	--	--
09/10-11/09 ¹	101.17	11.27	90.04**	0.17	0.35 ⁵	--	--	--	--	--
02/23/10 ¹	101.17	9.37	91.80	0.00	--	--	--	--	--	--
03/15/10 ¹	101.17	9.48	91.70**	0.01	--	--	--	--	--	--
09/15/10 ¹	101.17	11.21	90.13**	0.21	0.053 ⁵	--	--	--	--	--
12/04/10	101.17	10.56	90.67**	0.08	0.050 ⁵	--	--	--	--	--
3/14/2011 ¹	101.17	27.77	73.40	0.07	0.050 ⁵	--	--	--	--	--
11/16/11	34.01	11.27	22.74	0.00	--	--	--	--	--	--
12/08/11	34.01	9.78	24.30	0.09	0.050 ⁵	--	--	--	--	--
03/23/12	34.01	8.18	25.85	0.03	1.0	--	--	--	--	--
06/01/12	34.01	8.45	25.72**	0.20	1.0	--	--	--	--	--
09/20/12	34.01	11.30	22.89**	0.23	--	--	--	--	--	--
12/26/12	34.01	6.44	27.59**	0.03	--	--	--	--	--	--
MW-28										
08/11/99	100.35	--	--	0.00	--	1,810	1,450	884	--	238
10/21/99	100.35	--	--	0.00	--	2,890	2,700	1,350	--	180 ⁶
10/21/99	100.35	--	--	0.00	--	2,700	2,480	1,280	--	--

Table 1
Groundwater Monitoring and Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MW-28 (cont)										
01/06/00	100.35	6.93	93.42	0.00	--	1,770	2,090	1,180	--	--
07/27/00	100.35	7.45	92.90	0.00	--	1,840	2,420	702	--	356
09/29/00	100.35	8.5	91.85	0.00	--	927	902	450	--	--
01/15/01	100.35	8.59	91.76	0.00	--	1,970	2,070	635	--	98.8
06/21/01	100.35	7.66	92.69	0.00	--	1,950	3,130	1,190	--	272
03/18/02	100.35	6.02	94.33	0.00	--	--	--	--	--	--
06/26/03	100.35	7.57	92.78	0.00	--	1,230	615	1,290	--	--
09/15/03	100.35	8.96	91.39	0.00	--	848	175	916	--	272
12/15/03	100.35	7.56	92.79	0.00	--	881	474	1,010	--	284
03/25/04	100.35	7.07	93.28	0.00	--	712	281	854	--	288
09/22/04	100.35	8.16	92.19	0.00	--	--	--	--	--	--
03/14/05	100.35	8.45	91.90	0.00	--	--	--	--	--	--
03/29/06	100.35	6.64	93.71	0.00	--	--	--	--	--	--
03/21/07	100.35	6.86	93.49	0.38	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
03/25/08	100.35	7.25	93.24	0.17	--	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL				--
09/08-09/08 ¹	100.35	8.04	92.34**	0.04	0.16 ⁵	--	--	--	--	--
12/11/08 ¹	100.35	8.15	92.21**	0.01	--	--	--	--	--	--
03/30-31/09 ¹	100.35	6.84	93.52**	0.01	--	--	--	--	--	--
06/15/09 ¹	100.35	7.21	93.15**	0.01	--	--	--	--	--	--
09/10-11/09 ¹	100.35	8.16	92.21**	0.03	--	--	--	--	--	--
02/23/10 ¹	100.35	6.39	93.97**	0.01	--	--	--	--	--	--
03/15/10 ¹	100.35	6.05	94.30	0.00	--	--	--	--	--	--
9/15/10 ¹	100.35	7.76	92.60**	0.01	--	--	--	--	--	--
12/04/10	100.35	LOCATED BEHIND LOCKED GATE		--	--	--	--	--	--	--
3/14/2011 ¹	100.35	5.3	95.05	--	--	--	--	--	--	--
AGI-2										
08/10/99	97.95	--	--	0.00	--	38.8	11.7	1.57	--	<1.00
10/20/99	97.95	--	--	0.00	--	20.3	12.1	5.14	--	0.097
01/15/01	97.95	13.61	84.34	0.00	--	41.2	17.8	7.44	--	--
06/21/01	97.95	11.83	86.12	0.00	--	296	<10.0	<10.0	--	<10.0
07/26/01	97.95	12.19	85.76	0.00	--	397.0	14.9	16.9	--	<1.00
03/18/02	97.95	12.91	85.04	0.00	--	43.2	78.9	17.6	--	1.68
03/18/02	97.95	12.91	85.04	0.00	--	40.5	72.8	16.4	--	<2.00
05/07/02	97.95	11.95	86.00	0.00	--	6.16	2.24	2.76	--	--
06/06/02	97.95	12.51	85.44	0.00	--	4.58	1.52	2.04	--	--
07/02/02	97.95	11.9	86.05	0.00	--	3.60	2.52	2.00	--	--
09/03/02	97.95	13.65	84.30	0.00	--	3.48	2.59	3.16	--	--

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Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
AGI-2 (cont)										
12/31/02	97.95	13.75	84.20	0.00	--	1.10	1.36	1.34	--	--
03/26/03	97.95	12.62	85.33	0.00	--	40.3	481	302	--	--
04/28/03	97.95	12.98	84.97	0.00	--	27.7	351	190	--	--
05/30/03	97.95	12.19	85.76	0.00	--	19.4	358	200	--	--
06/25/03	97.95	12.66	85.29	0.00	--	3.34	1.23	7.70	--	<0.100
09/15/03	97.95	13.51	84.44	0.00	--	1.01	0.832	1.40	--	<1.00
12/15/03	97.95	13.59	84.36	0.00	--	0.688	0.599	0.851	--	<1.00
03/26/04	97.95	12.33	85.62	0.00	--	2.06	1.12	1.56	--	<1.00
09/22/04	97.95	12.67	85.28	0.00	--	--	--	--	--	--
03/14/05	97.95	12.99	84.96	0.00	--	--	--	--	--	--
03/29/06	97.95	12.45	85.50	0.00	--	--	--	--	--	--
03/21/07	97.95	12.30	85.65	0.00	--	0.78	<0.500	0.58	--	<5.00
03/25/08	97.95	12.53	85.42	0.00	--	--	--	--	--	--
09/08-09/08	97.95	12.63	85.32	0.00	--	--	--	--	--	--
12/11/08	97.95	MONITORED SEMI-ANNUALLY		--	--	--	--	--	--	--
03/30-31/09	97.95	12.33	85.62	0.00	--	--	--	--	--	--
09/10-11/09	97.95	13.11	84.84	0.00	--	11	3.5	5.8	--	2.1
03/15/10	97.95	15.92	82.03	0.00	--	3.5	0.9	2.0	--	4.9
09/15/10	97.95	12.99	84.96	0.00	--	19.0	6.5	15.0	--	2.4
03/14/11	97.95	12.58	85.37	--	--	--	--	--	--	--
06/21/12	30.68	11.69	18.99	0.00	--	--	--	--	--	--
09/20/12	30.68	13.31	17.37	0.00	--	61.0	12.0	6.2	--	0.86
12/26/12	30.68	13.41	17.27	0.00	--	11	3.6	1.4	--	--
MLU-1										
08/10/99	100.18	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
10/20/99	100.18	15.33	84.85	0.00	--	<0.500	<0.500	<0.500	--	0.023
01/06/00	100.18	15.75	84.43	0.00	--	<0.500	<0.500	<0.500	--	--
04/12/00	100.18	14.35	85.83	0.00	--	<1.00	<1.00	<1.00	--	<1.00
06/27/00	100.18	14.24	85.94	0.00	--	<1.00	<1.00	<1.00	--	<1.00
09/29/00	100.18	15.12	85.06	0.00	--	--	--	--	--	--
06/25/03	100.18	14.41	85.77	0.00	--	<0.500	<0.500	<0.500	--	<0.100
09/15/03	100.18	15.72	84.46	0.00	--	0.6280	<0.500	<0.500	--	<1.00
12/15/03	100.18	15.70	84.48	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/25/04	100.18	14.75	85.43	0.00	--	<0.500	<0.500	<0.500	--	<0.100
09/22/04	100.18	14.88	85.30	0.00	--	--	--	--	--	--
03/14/05	100.18	15.21	84.97	0.00	--	--	--	--	--	--
03/29/06	100.18	14.65	85.53	0.00	--	--	--	--	--	--
03/21/07	100.18	14.64	85.54	0.00	--	<0.500	<0.500	<0.500	--	<5.00
03/25/08	100.18	14.70	85.48	0.00	--	--	--	--	--	--

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1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
MLU-1 (cont)										
09/08-09/08	100.18	UNABLE TO LOCATE		--	--	--	--	--	--	--
12/11/08	100.18	MONITORED SEMI-ANNUALLY		--	--	--	--	--	--	--
03/30-31/09	100.18	UNABLE TO LOCATE		--	--	--	--	--	--	--
09/10-11/09	100.18	15.32	84.86	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/15/10	100.18	14.82	85.36	0.00	--	<0.5	<0.5	<0.5	--	1.7
09/15/10	100.18	15.21	84.97	0.00	--	<0.5	<0.5	<0.5	--	<1.0
03/14/11	100.18	14.19	85.99	0.00	--	--	--	--	--	--
06/21/12	32.90	13.96	18.94	0.00	--	--	--	--	--	--
09/20/12	32.90	15.51	17.39	0.00	--	--	--	--	--	--
09/21/12	32.90	15.51	17.39	0.00	--	<0.5	<0.5	<0.5	--	<0.031
12/26/12	32.90	15.31	17.59	0.00	--	<0.5	<0.5	<0.5	--	--
SMPN-1										
03/15/05	--	11.23	--	0.00	--	--	--	--	--	--
10/04/05	--	11.96	--	0.24	--	--	--	--	--	--
03/29/06	--	9.84	--	0.00	--	--	--	--	--	--
03/21/07	--	9.89	--	0.00	--	--	--	--	--	--
03/25/08	--	10.36	--	0.00	--	--	--	--	--	--
09/08-09/08 ¹	100.99	10.68	90.32**	0.01	--	--	--	--	--	--
12/11/08 ¹	100.99	11.30	89.69	0.00	--	--	--	--	--	--
03/30-31/09 ¹	100.99	10.31	90.69**	0.01	--	--	--	--	--	--
06/15/09 ¹	100.99	9.73	91.27**	0.01	--	--	--	--	--	--
09/10-11/09 ¹	100.99	11.13	89.86	0.00	--	--	--	--	--	--
02/23/10 ¹	100.99	9.86	91.13	0.00	--	--	--	--	--	--
03/15/10 ¹	100.99	9.83	91.17**	0.01	--	--	--	--	--	--
09/15/10 ¹	100.99	11.13	89.87**	0.01	--	--	--	--	--	--
12/4/10 ¹	100.99	10.53	90.46	0.00	--	--	--	--	--	--
11/16/11	33.78	11.27	22.51	0.00	--	--	--	--	--	--
12/08/11	33.78	9.79	24.00**	0.01	0.050 ⁵	--	--	--	--	--
03/23/12	33.78	8.27	25.53**	0.02	0.50	--	--	--	--	--
06/01/12	33.78	8.85	24.93	0.00	--	--	--	--	--	--
09/20/12	33.78	11.14	22.78**	0.18	--	--	--	--	--	--
12/26/12	33.78	8.50	25.28	0.00	--	--	--	--	--	--
SMPN-2										
03/15/05	--	11.21	--	0.01	--	--	--	--	--	--
03/29/06	--	9.48	--	0.00	--	--	--	--	--	--
03/21/07	--	9.20	--	0.05	--	--	--	--	--	--
03/25/08	--	10.11	--	0.00	--	--	--	--	--	--
09/08-09/08 ¹	101.24	10.51	90.74**	0.01	--	--	--	--	--	--
12/11/08	101.24	11.06	90.19**	0.01	--	--	--	--	--	--
03/30-31/09	101.24	10.12	91.13**	0.01	--	--	--	--	--	--
06/15/09	101.24	9.51	91.74**	0.01	--	--	--	--	--	--
09/10-11/09	101.24	10.99	90.26**	0.01	--	--	--	--	--	--
02/23/10	101.24	9.23	92.01	0.00	--	--	--	--	--	--
03/15/10	101.24	9.37	91.88**	0.01	--	--	--	--	--	--
09/15/10	101.24	11.07	90.31**	0.18	--	--	--	--	--	--
12/04/10	101.24	10.35	90.95**	0.07	--	--	--	--	--	--
03/14/11	101.24	8.93	92.31	0.00	--	--	--	--	--	--
11/16/11	33.85	9.97	23.89	0.01	0.050 ⁵	--	--	--	--	--
12/08/11	33.85	9.61	24.24	0.00	--	--	--	--	--	--

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1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
SMPN-2(cont)										
03/23/12	33.85	8.12	25.75**	0.02	0.50	--	--	--	--	--
06/01/12	33.85	8.40	25.53**	0.10	1.00	--	--	--	--	--
09/20/12	33.85	11.11	22.87**	0.16	--	--	--	--	--	--
12/26/12	33.85	8.51	25.34	0.00	--	--	--	--	--	--
SMPN-3										
03/15/05	--	11.46	--	0.00	--	--	--	--	--	--
03/29/06	--	9.56	--	0.00	--	--	--	--	--	--
03/21/07	--	9.03	--	0.00	--	--	--	--	--	--
03/25/08	--	10.30	--	0.00	--	--	--	--	--	--
09/08-09/08 ¹	101.02	10.67	90.36**	0.01	--	--	--	--	--	--
12/11/08	101.02	11.26	89.76	0.00	--	--	--	--	--	--
03/30-31/09	101.02	10.28	90.75**	0.01	--	--	--	--	--	--
06/15/09	101.02	9.59	91.43	0.00	--	--	--	--	--	--
09/10-11/09	101.02	11.09	89.94**	0.01	--	--	--	--	--	--
02/23/10	101.02	9.44	91.58	0.00	--	--	--	--	--	--
03/15/10	101.02	9.51	91.52**	0.01	--	--	--	--	--	--
09/15/10	101.02	11.14	89.88	0.00	--	--	--	--	--	--
12/04/10	101.02	10.49	90.53	0.00	--	--	--	--	--	--
03/14/11	101.02	9.12	91.90	0.00	--	--	--	--	--	--
11/16/11	33.81	11.06	22.85	0.12	0.050 ⁵	--	--	--	--	--
12/08/11	33.81	9.73	24.08	0.00	--	--	--	--	--	--
03/23/12	33.81	8.30	25.51	0.00	--	--	--	--	--	--
06/01/12	33.81	8.05	25.76	0.00	--	--	--	--	--	--
09/20/12	33.91	11.22	22.69	0.00	--	--	--	--	--	--
12/26/12	33.91	8.89	25.02	0.00	--	--	--	--	--	--
MW-8										
08/09/99	97.87	--	--	0.00	--	186	15.4	39.0	--	9.23
10/20/99	97.87	13.06	84.81	0.00	--	31.4	2.47	2.97	--	0.35 ⁶
01/06/00	97.87	--	--	0.00	--	710	26.5	304	--	--
04/12/00	97.87	12.57	85.30	0.00	--	28.2	1.72	4.16	--	1.88
06/27/00	97.87	12.61	85.26	0.00	--	29.5	1.47	3.09	--	<1.00
09/28/00	97.87	12.88	84.99	0.00	--	20.3	1.23	1.39	--	4
01/15/01	97.87	13.70	84.17	0.00	--	17.7	2.14	12.3	--	--
06/21/01	97.87	11.77	86.10	0.00	--	197	<10.0	26.7	--	<10.0
07/26/01	97.87	12.18	85.69	0.00	--	157	7.03	42.5	--	6.86
07/26/01 (D)	97.87	12.18	85.69	0.00	--	147	7.07	42.2	--	6.36
03/19/02	97.87	12.84	85.03	0.00	--	1,450	22.0	166	--	32.0
03/19/02 (D)	97.87	12.84	85.03	0.00	--	1,430	21.7	169	--	30.0
04/03/02	97.87	12.48	85.39	0.00	--	1,000	22.3	199	--	36.5
04/03/02 (D)	97.87	12.48	85.39	0.00	--	1,030	21.9	213	--	37.3
05/07/02	97.87	11.86	86.01	0.00	--	472	13.7	152	--	--
06/06/02	97.87	12.39	85.48	0.00	--	476	14.1	79.8	--	--
07/02/02	97.87	11.79	86.08	0.00	--	291	14.0	58.9	--	--
09/03/02	97.87	13.24	84.63	0.00	--	284	11.3	81.6	--	--
10/11/02	97.87	14.04	83.83	0.00	--	238	18	152.0	--	--
12/31/02	97.87	13.69	84.18	0.00	--	165	16.3	261	--	--
12/31/02 (D)	97.87	13.69	84.18	0.00	--	192	16.1	141	--	--
03/26/03	97.87	12.23	85.64	0.00	--	767	23.2	156	--	--
04/28/03	97.87	12.87	85.00	0.00	--	683	20.8	125	--	--

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MW-8 (cont)										
05/30/03	97.87	11.80	86.07	0.00	--	467	15.4	75.4	--	--
06/25/03	97.87	12.20	85.67	0.00	--	305	17.4	89.7	--	7.94
09/15/03	97.87	13.45	84.42	0.00	--	159	36.1	634	--	168
DECOMMISSIONED DECEMBER 2003										
MW-16										
03/21/07	--	14.49	--	0.00	--	<0.500	<0.500	<0.500	--	<5.00
03/25/08	--	15.25	--	0.00	--	--	--	--	--	--
09/08-09/08	--	18.51	--	0.00	--	--	--	--	--	--
12/11/08	--	MONITORED SEMI-ANNUALLY		--	--	--	--	--	--	--
03/30-31/09	--	16.11	--	0.00	--	--	--	--	--	--
ABANDONED										
MLU-3										
08/20/99	97.92	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
10/20/99	97.92	13.58	84.34	0.00	--	<0.500	<0.500	<0.500	--	0.057
07/26/01	97.92	12.05	85.87	0.00	--	<1.00	<1.00	<1.00	--	<1.00
NOT MONITORED/SAMPLED										
TRIP BLANK										
08/09/99	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
08/10/99	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
08/11/99	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
10/20/99	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	--
01/07/00	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	--
04/13/00	--	--	--	0.00	--	--	--	--	--	--
04/13/00	--	--	--	0.00	--	--	--	--	--	--
04/13/00	--	--	--	0.00	--	--	--	--	--	--
04/13/00	--	--	--	0.00	--	--	--	--	--	--
04/13/00	--	--	--	0.00	--	--	--	--	--	--
06/28/00	--	--	--	0.00	--	--	--	--	--	--
09/29/00	--	--	--	0.00	--	--	--	--	--	--
01/15/01	--	--	--	0.00	--	--	--	--	--	--
06/21/01	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
03/18/02	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00

Table 1
Groundwater Monitoring and Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Naphthalene (µg/L)
TRIP BLANK (cont)										
03/19/02	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
04/03/02	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
09/03/02	--	--	--	0.00	--	<0.500	<0.500	1.09	--	--
12/31/02	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	--
06/26/03	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	--
09/15/03	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
12/15/03	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/25/04	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
09/23/04	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/14/05	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/29/06	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/21/07	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<5.00
03/25/08	--	--	--	0.00	--	<0.5	<0.5	<0.5	--	<1.0
FIELD BLANK										
08/20/99	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
10/20/99	--	--	--	0.00	--	--	--	--	--	--
10/20/99	--	--	--	0.00	--	--	--	--	--	--
10/20/99	--	--	--	0.00	--	--	--	--	--	--
10/22/99	--	--	--	0.00	--	--	--	1.1	--	--
10/22/99	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	--
10/25/99	--	--	--	0.00	--	--	--	--	--	--
10/25/99	--	--	--	0.00	--	--	--	--	--	--
10/26/99	--	--	--	0.00	--	--	--	--	--	--
10/26/99	--	--	--	0.00	--	--	--	--	--	--
06/21/01	--	--	--	0.00	--	<1.00	<1.00	2.49	--	1.88
06/27/01	--	--	--	0.00	--	<1.00	<1.00	1.79	--	<1.00
07/26/01	--	--	--	0.00	--	1.22	<1.00	4.26	--	<1.00
03/19/02	--	--	--	0.00	--	<1.00	<1.00	<1.00	--	<1.00
09/03/02	--	--	--	0.00	--	0.857	<0.500	3.84	--	--
12/31/02	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	--
09/17/03	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
12/17/03	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/26/04	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
09/23/04	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/14/05	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00

Table 1
Groundwater Monitoring and Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Napthalene (µg/L)
FIELD BLANK (cont)										
03/29/06	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<1.00
03/21/07	--	--	--	0.00	--	<0.500	<0.500	<0.500	--	<5.00
03/25/08	--	--	--	0.00	--	<0.5	<0.5	<0.5	--	<1.0
09/08-09/08	--	--	--	0.00	--	<0.5	<0.5	<0.5	<1.5	--
QA										
03/30-31/09	--	--	--	0.00	--	<0.5	<0.5	<0.5	<1.5	--
09/10-11/09	--	--	--	0.00	--	<0.5	<0.5	<0.5	<1.5	--
03/15/10	--	--	--	0.00	--	<0.5	<0.5	<0.5	<1.5	--
09/15/10	--	--	--	0.00	--	<0.5	<0.5	<0.5	<1.5	--
09/24/11	--	--	--	0.00	--	<0.2	<0.2	<0.2	<0.6	--
11/16/11	--	--	--	0.00	--	<0.2	<0.2	<0.2	<0.6	--

Table 1
Groundwater Monitoring and Analytical Results

Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to 2010 were compiled from reports prepared by SAIC.

TOC = Top of Casing elevation	T = Toluene	NP = No Purge
DTW = Depth to Water	E = Ethylbenzene	(µg/L) = Micrograms per liter
(ft.) = Feet	X = Xylenes	QA = Quality Assurance/Trip Blank
GWE = Groundwater Elevation	-- = Not Measured/Not Analyzed	(D) = Duplicate
B = Benzene	LNAPLT - Separate Phase Hydrocarbon Thickness	ND = Non-detect

ANALYTICAL METHOD:

BTEX and Napthalene analyzed by EPA method 8021B

TOC elevations from wells were surveyed by OTAK on April 6, 25 and May 11, 2011. Survey data provided by ARCADIS

** Groundwater elevation corrected for the presence of LNAPL; Correction factor: [(TOC-DTW)+(LNAPLT x 0.80)].

- 1 Absorbant sock in well.
- 2 Laboratory report indicates due to the presence of an interferent near its retention time, the normal reporting limit was not attained for toluene. The presence or concentration of this compound cannot be determined due to the presence of this interferent.
- 3 Laboratory report indicates the reporting limit for Naphthalene was raised due to the detection in the associated method blank.
- 4 Laboratory report indicates the reporting limit for Naphthalene was raised to 5 µg/L due to the detection in the associated method blank.
- 5 Product + water removed.
- 6 Laboratory report indicates concentration exceeds the instrument calibration range.
- 7 Laboratory report indicates estimated value.
- 8 Laboratory report indicates due to the presence of interferents near their retention time, normal reporting limits were not attained for benzene and toluene. The presence or concentrations of these compounds cannot be determined below the reporting limits due to the presence of these interferents.
- 9 No purge due to bent casing.
- 10 Laboratory report indicates due to the presence of an interferent near its retention time, the normal reporting limit was not attained for naphthalene.. The presence or concentration of this compound cannot be determined due to the presence of this interferent.
- 11 Laboratory report indicates the reporting limits were raised because sample dilution was necessary to bring internal standard within QC limits.
- 12 Product only removed.
- 13 Sheen in water.

Table 2
Light Non Aqueous Phase Liquid Thickness/Removal Data
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC (ft.)	Depth To Product (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)
MW-3						
08/11/99	104.07	--	--	--	--	--
10/22/99	104.07	--	--	--	--	--
05/24/01	104.07	9.99	10.25	94.03	0.26	--
06/27/01	104.07	--	--	--	--	--
03/18/02	104.07	8.59	9.28	95.34	0.69	--
12/31/02	104.07	--	--	--	--	--
03/26/03	104.07	--	7.02	97.05	0.00	--
06/26/03	104.07	10.49	11.49	93.38	1.00	2.75
07/21/03	104.07	--	--	--	--	2.50
08/28/03	104.07	--	--	--	--	3.00
10/16/03	104.07	11.55	13.89	92.05	2.34	1.75
11/21/03	104.07	--	--	--	--	3.50
12/17/03	104.07	10.27	11.02	93.65	0.75	2.00
01/29/04	104.07	9.82	10.59	94.10	0.77	1.75
02/18/04	104.07	9.77	10.32	94.19	0.55	0.75
03/30/04	104.07	9.28	9.93	94.66	0.65	0.75
09/22/04	104.07	10.61	11.35	93.31	0.74	1.50
03/15/05	104.07	10.82	12.98	92.82	2.16	3.00
9/28/05*	104.07	--	11.25	--	<3.0	3.50
03/29/06	104.07	8.76	12.40	94.58	3.64	6.50
03/21/07	104.07	9.13	10.67	94.63	1.54	2.00
03/25/08	104.07	9.73	10.38	94.21	0.65	1.00
09/08-09/08	104.07	10.55	11.02	93.43	0.47	1.50
12/11/08	104.07	10.79	12.10	93.02	1.31	2.50
03/30-31/09	104.07	--	9.70	94.37	0.00	0.00
06/15/09	104.07	9.79	10.97	94.04	1.18	2.50 ¹
09/10-11/09	104.07	10.94	12.21	92.88	1.27	1.66 ¹
02/23/10	104.07	8.75	11.25	94.82	2.50	1.75 ¹
03/15/10	104.07	8.60	11.25	94.94	2.65	2.50 ²
03/23/12	104.07	11.90	12.00	92.15	0.10	0.50
06/01/12			INACCESSIBLE			
MW-9						
08/11/99	103.67	--	--	--	--	--
10/21/99	103.67	--	--	--	--	--
05/24/01	103.67	14.02	14.07	--	0.05	--
06/21/01	103.67	13.74	13.78	89.92	0.04	--

Table 2
Light Non Aqueous Phase Liquid Thickness/Removal Data
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC (ft.)	Depth To Product (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)
MW-9 (cont)				103.67		
06/27/01	103.67	--	13.79	89.88	0.00	--
03/18/02	103.67	12.82	13.51	90.71	0.69	--
10/16/02	103.67	--	--	--	0.54	--
11/11/02	103.67	--	--	--	0.90	--
12/31/02	103.67	--	--	--	0.91	--
02/27/03	103.67	--	--	--	0.02	--
03/26/03	103.67	--	--	--	0.09	--
04/28/03	103.67	13.18	13.25	90.48	0.07	--
05/30/03	103.67	13.43	13.52	90.22	0.09	--
06/26/03	103.67	13.86	13.90	89.80	0.04	0.10
07/21/03	103.67	--	--	--	0.21	2.00
08/28/03	103.67	--	--	--	0.23	0.75
10/16/03	103.67	15.41	15.98	88.15	0.57	2.00
11/21/03	103.67	--	--	--	0.01	0.25
12/17/03	103.67	--	--	--	0.00	0.00
01/29/04	103.67	14.13	14.16	89.53	0.03	0.10
02/18/04	103.67	10.94	11.11	92.70	0.17	0.25
03/30/04	103.67	13.69	13.80	89.96	0.11	0.25
09/22/04	103.67	9.49	9.52	94.17	0.03	0.25
03/15/05	103.67	14.52	14.81	89.09	0.29	0.25
09/28/05	103.67	15.06	15.31	88.56	0.25	<0.01
03/29/06	103.67	13.00	13.26	90.62	0.26	<0.5
03/21/07	103.67	13.41	13.73	90.20	0.32	0.19
03/25/08	103.67	--	13.93	89.74	0.00	<0.25
09/08-09/08	103.67	14.22	14.23	89.45	0.01	0.00
12/11/08	103.67	15.11	15.16	88.55	0.05	0.02
03/30-31/09	103.67	--	14.06	89.61	0.00	0.00
06/15/09	103.67	--	13.32	90.35	0.00	0.00
09/10-11/09	103.67	--	14.80	88.87	0.00	0.00
02/23/10	103.67	12.80	13.10	90.81	0.30	0.21 ¹
03/15/10	103.67	13.10	13.33	90.52	0.23	0.18 ¹
3/14/2011 ¹	103.67	--	12.71	90.96	0.00	--
9/24/2011 ¹	36.46	--	14.62	21.84	0.00	--
12/08/2011 ¹	36.46	--	12.87	23.59	0.00	--
03/23/12	36.46	10.35	10.55	26.07	0.20	0.50
06/01/12	36.46	11.55	11.75	24.87	0.20	1.00

Table 2
Light Non Aqueous Phase Liquid Thickness/Removal Data
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC (ft.)	Depth To Product (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)
MW-10						
08/11/99	100.30	--	--	--	--	--
10/21/99	100.30	--	--	--	--	--
04/12/00	100.30	--	7.34	92.96	0.00	--
06/27/00	100.30	--	8.95	91.35	0.00	--
09/28/00	100.30	--	10.08	90.22	0.00	--
01/15/01	100.30	--	10.16	90.14	0.00	--
01/15/01	100.30	--	10.16	90.14	0.00	--
05/24/01	100.30	--	9.14	91.16	0.00	--
06/21/01	100.30	--	7.97	92.33	0.00	--
06/27/01	100.30	--	9.07	91.23	0.00	--
06/27/01	100.30	--	9.07	91.23	0.00	--
03/18/02	100.30	--	7.09	93.21	0.00	--
07/02/02	100.30	--	8.37	91.93	0.00	--
12/31/02	100.30	--	--	--	0.96	--
02/27/03	100.30	--	--	--	0.17	--
03/26/03	100.30	--	--	--	0.04	--
04/28/03	100.30	--	8.80	91.50	0.00	--
05/30/03	100.30	--	8.76	91.54	0.00	--
06/26/03	100.30	8.69	8.99	91.55	0.30	6.00
07/21/03	100.30	--	--	--	0.06	1.00
08/28/03	100.30	--	--	--	0.14	6.00
10/16/03	100.30	10.54	11.56	89.56	1.02	18.50
11/21/03	100.30	--	--	--	1.33	7.00
12/17/03	100.30	--	--	--	0.15	0.75
01/29/04	100.30	8.61	8.61	91.69	0.00	--
02/18/04	100.30	8.58	8.72	91.69	0.14	0.25
03/30/04	100.30	8.41	8.47	91.88	0.06	0.25
09/22/04	100.30	9.56	9.64	90.72	0.08	0.50
03/15/05	100.30	9.83	10.20	90.40	0.37	0.25
10/04/05	100.30	10.39	11.20	89.75	0.81	1.75
03/29/06	100.30	7.63	8.35	92.53	0.72	2.00
03/21/07	100.30	7.49	7.95	92.72	0.46	0.44
03/25/08	100.30	8.68	8.68	91.62	0.00	0.00
09/08-09/08	100.30	9.34	9.39	90.95	0.05	0.20
12/11/08	100.30	9.59	9.90	90.65	0.31	1.00

Table 2
Light Non Aqueous Phase Liquid Thickness/Removal Data
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC (ft.)	Depth To Product (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)
MW-10 (cont)						
03/30-31/09	100.30	8.20	8.44	92.05	0.24	1.11 ¹
06/15/09	100.30	8.10	8.31	92.16	0.21	0.34 ¹
09/10-11/09	100.30	10.12	10.14	90.18	0.02	0.00
02/23/10	100.30	7.13	7.14	93.17	0.01	0.00
03/15/10	100.30	--	7.24	93.06	0.00	0.00
MW-12						
08/11/99	100.11	--	--	--	--	--
10/21/99	100.11	--	--	--	--	--
05/24/01	100.11	--	8.30	91.81	0.00	--
06/21/01	100.11	--	--	--	--	--
06/27/01	100.11	9.00	9.01	91.11	0.01	--
03/18/02	100.11	7.87	7.91	92.23	0.04	--
12/31/02	100.11	--	--	--	0.02	--
04/28/03	100.11	7.27	7.36	92.82	0.09	--
05/30/03	100.11	7.37	7.42	92.73	0.05	--
06/26/03	100.11	Sheen	8.32	91.79	Sheen	0.10
07/21/03	100.11	--	--	--	0.01	0.50
08/28/03	100.11	--	--	--	0.03	0.75
10/16/03	100.11	9.36	9.48	90.73	0.12	0.75
11/21/03	100.11	--	--	--	0.00	0.00
12/17/03	100.11	--	--	--	0.00	0.00
01/29/04	100.11	8.44	8.44	91.67	0.00	0.00
02/18/04	100.11	7.54	7.54	92.57	0.00	0.00
03/30/04	100.11	7.84	7.84	92.27	0.00	0.00
09/22/04	100.11	8.65	8.69	91.45	0.04	0.25
03/15/05	100.11	8.78	8.79	91.33	0.01	0.00
10/04/05	100.11	13.65	13.67	86.46	0.02	<0.01
03/29/06	100.11	7.51	7.51	92.60	0.00	0.00
03/21/07	100.11	7.32	7.32	92.79	0.00	0.00
03/25/08	100.11	--	8.09	92.02	0.00	0.00
09/08-09/08	100.11	--	8.65	91.46	0.00	0.00
12/11/08	100.11	8.61	8.62	91.50	0.01	0.00
03/30-31/09	100.11	7.53	7.54	92.58	0.01	0.00
06/15/09	100.11	--	7.92	92.19	0.00	0.00

Table 2
Light Non Aqueous Phase Liquid Thickness/Removal Data
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC (ft.)	Depth To Product (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)
MW-12 (cont)						
09/10-11/09	100.11	9.22	9.23	90.89	0.01	0.00
02/23/10	100.11	--	6.90	93.21	0.00	0.00
03/15/10	100.11	--	7.23	92.88	0.00	0.00
MW-27						
09/13/99	101.17	--	--	--	--	--
10/22/99	101.17	--	--	--	--	--
01/06/00	101.17	--	--	--	--	--
05/24/01	101.17	10.38	11.11	90.64	0.73	--
06/27/01	101.17	9.29	10.07	91.72	0.78	--
03/18/02	101.17	9.00	9.07	92.16	0.07	--
10/16/02	101.17	--	--	--	0.05	--
12/31/02	101.17	--	--	--	0.02	--
06/26/03	101.17	10.83	11.08	90.29	0.25	0.25
07/21/03	101.17	--	--	--	0.46	4.00
08/28/03	101.17	--	--	--	0.21	8.00
10/16/03	101.17	--	5.97	95.20	0.00	0.00
11/21/03	101.17	--	--	--	--	0.00
12/17/03	101.17	--	--	--	--	0.00
01/29/04	101.17	9.71	10.23	91.36	0.52	2.00
02/18/04	101.17	9.97	10.59	91.08	0.62	1.75
03/30/04	101.17	9.77	10.54	91.25	0.77	3.00
09/22/04	101.17	9.91	9.98	91.25	0.07	0.70
03/15/05	101.17	11.21	11.76	89.85	0.55	0.50
03/29/06	101.17	--	9.14	92.03	0.00	0.00
03/21/07	101.17	7.90	7.91	93.27	0.01	<0.01
03/25/08	101.17	--	10.57	90.60	0.00	0.00
09/08-09/08	101.17	10.66	10.83	90.48	0.17	0.28
12/11/08	101.17	11.18	11.19	89.99	0.01	0.00
03/30-31/09	101.17	9.91	9.92	91.26	0.01	0.00
06/15/09	101.17	9.66	9.67	91.51	0.01	0.00
09/10-11/09	101.17	11.10	11.27	90.04	0.17	0.33 ¹
02/23/10	101.17	--	9.37	91.80	0.00	0.00
03/15/10	101.17	9.47	9.48	91.70	0.01	0.00
3/14/2011 ¹	101.17	27.70	27.77	73.46	0.07	0.050 ⁵
11/16/11	34.01	--	11.27	22.74	0.00	--
12/08/11	34.01	9.69	9.78	24.30	0.09	0.050 ¹
03/23/12	34.01	8.15	8.18	25.85	0.03	1.00

Table 2
Light Non Aqueous Phase Liquid Thickness/Removal Data
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC (%)	Depth To Product (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)
MW-27 (cont)						
06/01/12	34.01	8.25	8.45	25.72	0.20	1.00
MW-28						
03/21/07	100.35	6.48	6.86	-6.56	0.38	0.25
03/25/08	100.35	7.08	7.25	-7.11	0.17	0.25
09/08-09/08	100.35	8.00	8.04	92.34	0.04	0.16
12/11/08	100.35	8.14	8.15	92.21	0.01	0.00
03/30-31/09	100.35	6.83	6.84	93.52	0.01	0.00
06/15/09	100.35	7.20	7.21	93.15	0.01	0.00
09/10-11/09	100.35	8.13	8.16	92.21	0.03	0.00
02/23/10	100.35	6.38	6.39	93.97	0.01	0.00
03/15/10	100.35	--	6.05	94.30	0.00	0.00
03/14/11	100.35	--	5.3	95.05	0.00	0.00
SMPN-1						
03/15/05	--	Sheen	11.23	--	Sheen	0.00
10/04/05	--	11.72	11.96	--	0.24	<1/16
03/29/06	--	--	9.84	--	0.00	0.00
03/21/07	--	--	9.89	--	0.00	0.00
03/25/08	--	--	10.36	--	0.00	0.00
09/08-09/08	100.99	10.67	10.68	90.32	0.01	0.00
12/11/08	100.99	--	11.30	89.69	0.00	0.00
03/30-31/09	100.99	10.30	10.31	90.69	0.01	0.00
06/15/09	100.99	9.72	9.73	91.27	0.01	0.00
09/10-11/09	100.99	--	11.13	89.86	0.00	0.00
02/23/10	100.99	--	9.86	91.13	0.00	0.00
03/15/10	100.99	--	9.83	91.17	0.01	0.00
11/16/11	33.78	--	11.27	22.51	0.00	--
12/08/11	33.78	9.78	9.79	24.00	0.01	0.050 ¹
03/23/12	33.78	8.25	8.27	25.53	0.02	0.50
6/1/2012	33.78	--	8.85	24.93	0.00	0.00
SMPN-2						
03/15/05	--	11.20	11.21	--	0.01	0.00
03/29/06	--	--	9.48	--	0.00	0.00
03/21/07	--	9.15	9.20	--	0.05	<0.05
03/25/08	--	--	10.11	--	0.00	0.00
09/08-09/08	101.24	10.50	10.51	90.74	0.01	0.00
12/11/08	101.24	11.05	11.06	90.19	0.01	0.00
03/30-31/09	101.24	10.11	10.12	91.13	0.01	0.00
06/15/09	101.24	9.50	9.51	91.74	0.01	0.00

Table 2
Light Non Aqueous Phase Liquid Thickness/Removal Data
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	TOC (ft.)	Depth To Product (ft.)	DTW (ft.)	GWE (ft.)	LNAPL (ft.)	LNAPL Removed (gallons)
SMPN-2 (cont)						
09/10-11/09	101.24	10.98	10.99	90.26	0.01	0.00
02/23/10	101.24	10.98	9.23	92.01	0.00	0.00
03/15/10	101.24	9.36	9.37	91.88	0.01	0.00
03/14/11	101.24	--	8.93	92.31	0.00	--
11/16/11	33.85	9.96	9.97	23.89	0.01	0.050 ¹
12/08/11	33.85	--	9.61	24.24	0.00	--
03/23/12	33.85	8.10	8.12	25.75	0.02	0.50
6/1/2012	33.85	8.30	8.40	25.53	0.10	1.00
SMPN-3						
03/15/05	--	--	11.46	--	0.00	0.00
03/29/06	--	--	9.56	--	0.00	0.00
03/21/07	--	--	9.03	--	0.00	0.00
03/25/08	--	--	10.30	--	0.00	0.00
09/08-09/08	101.02	10.66	10.67	90.36	0.01	0.00
12/11/08	101.02	--	11.26	89.76	0.00	0.00
03/30-31/09	101.02	10.27	10.28	90.75	0.01	0.00
06/15/09	101.02	--	9.59	91.43	0.00	0.00
09/10-11/09	101.02	--	11.08	11.09	0.01	0.00
02/23/10	101.02	--	9.44	91.58	0.00	0.00
03/15/10	101.02	--	9.51	91.52	0.01	0.00
03/14/11	101.02	--	9.12	91.90	0.00	--
11/16/11	33.81	10.94	11.06	22.85	0.12	0.050 ¹
12/08/11	33.81	--	9.73	24.08	0.00	--
03/23/12	33.81	--	8.30	25.51	0.00	--
06/01/12	33.81	--	8.05	25.76	0.00	--

Table 2
Light Non Aqueous Phase Liquid Thickness/Removal Data
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

Data prior to 2010, and the notes below, were provided by SAIC.

EXPLANATIONS:

-- = Not Applicable or Not included in monitoring program

DTW = Depth to water

GWE = Groundwater elevation in feet (based on arbitrary benchmark @ 100 feet)

LNAPLT = Light Non Aqueous Phase Liquid Thickness

Groundwater Elevation calculated using the following formula to account for the effect of LNAPL. $GWE = (\text{Survey elevation} - DTW) + (0.8 * LNAPLT)$

* Interface probe not recognizing LNAPL, bailer dropped in well, LNAPL thickness > 3 feet.

¹ LNAPL + water removed.

² LNAPL only removed

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,h) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
MW-3									
08/11/99	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	5.34	4.39
10/21/99	.0044 ³	.0008 ³	.0062 ³	.0034 ³	.0028 ³	.0063 ³	.0057 ³	--	--
03/29/06	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL								
03/21/07	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL								
03/25/08	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL								
09/15/10	INACCESSIBLE								
MW-4									
08/10/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<1.0	<1.0
06/25/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	--	--
09/16/03	0.0241	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	--	--
12/15/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<1.0	<1.0
03/25/04	0.0137	<0.0119	<0.0119	<0.0119	0.0131	<0.0119	<0.0119	<1.0	<1.0
03/21/07	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<1.0	<1.0
03/25/08	0.030	0.025	0.031	0.014	0.028	<0.0099	0.019	<0.70	1.4
09/08-09/08	0.15	0.15	0.14	0.079	0.13	<0.011	<0.011	<0.95	<0.050
03/30-31/09	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.95	<0.050
09/10-11/09	0.012	0.013	0.014	<0.0098	0.012	<0.0098	<0.0098	<0.95	<0.050
03/15/10	0.041	0.052	0.069	0.027	0.048	<0.0099	0.016	<0.95	<0.050
09/15/10	0.48	0.68	0.43	0.43	0.53	0.065	0.43	<0.95	<0.052
9/25/2011 ⁵	<0.012	<0.012	0.012	<0.012	<0.012	<0.012	<0.012	<0.95	0.09
10/10/11	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
06/21/12	0.032	0.037	0.039	0.018	0.035	<0.010	0.013	--	--
06/21/12 (F)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/26/12	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	--	--
09/26/12 (F)	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.40	<0.034
MW-7									
08/10/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	3.71	4.64
10/20/99	0.0028 ³	0.0038 ³	0.0043 ³	0.0025 ³	0.0061 ³	0.0079 ³	--	--	--
06/25/03	<0.0100	<0.0100	<0.0100	0.900 (Q-20)	<0.0100	<0.0100	<0.0100	--	--
03/21/07	UNABLE TO LOCATE								
03/25/08	UNABLE TO LOCATE								

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,b) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
MW-7 (cont)									
09/08-09/08	UNABLE TO LOCATE		--	--	--	--	--	--	--
09/10-11/09	UNABLE TO LOCATE		--	--	--	--	--	--	--
03/15/10	0.14 ²	0.12 ²	0.21 ²	0.16 ²	0.18 ²	0.013 ²	0.041 ²	1.5	1.1
09/15/10	0.3	0.5	0.42	0.36	0.38	0.073	0.39	2.5	1.7
06/21/12	0.011	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	--	--
06/21/12	(F) <0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/20/12	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	--	--
09/20/12	(F) <0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	6.1	1.6
MW-8A									
12/15/03	--	--	--	--	--	--	--	--	--
03/25/04	0.0650	0.0454	0.0299	0.0531	0.0568	0.0274	0.0419	2.49	<1.0
09/23/04	<0.01	0.0220	<0.01	<0.01	0.0315	<0.01	<0.01	1.2	<1.0
09/23/04	(D) 0.110	0.102	0.0980	0.120	0.104	0.0656	0.0937	1.11	<1.0
03/14/05	0.0234	0.0135	0.0123	0.0209	0.0164	<0.01	0.0137	5.2	<1.0
03/29/06	<0.00952	<0.00952	0.0281	<0.00952	<0.00952	<0.00952	<0.00952	<1.0	<1.0
03/21/07	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<1.0	<1.0
03/25/08	<0.0096	<0.0096	0.010	<0.0096	<0.0096	<0.0096	<0.0096	0.92	2.0
09/08-09/08	0.017	0.018	0.031	<0.0099	0.028	<0.0099	0.021	1.1	<0.050
03/30-31/09	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.95	<0.050
09/10-11/09	0.012	0.017	0.035	0.011	0.021	<0.0098	0.022	<0.95	0.059
03/15/10	0.036	0.062	0.14	0.099	0.079	0.011	0.040	<0.95	0.062
09/15/10	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	2.8	<0.052
11/16/11	0.016	0.02	0.029	0.011	0.028	<0.0095	0.02	0.99	<0.080
06/21/12	(D) <0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	--	--
06/21/12	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	--	--
06/21/12	(F) <0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/21/12	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/21/12	(F) <0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	4.9	0.13
MW-9									
08/11/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	4.33	<1.0
10/21/99	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083 ³	<0.0083	17	0.94
03/25/04	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	12.9	<1.0
03/29/06	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL		--	--	--	--	--	--	--
03/21/07	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL		--	--	--	--	--	--	--
03/25/08	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL		--	--	--	--	--	--	--
09/08-09/08	<0.10 ¹	<0.10 ¹	<0.10 ¹	<0.10 ¹	<0.10 ¹	<0.10 ¹	<0.10 ¹	9.5	0.58

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,b) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
MW-9 (cont)									
03/30-31/09	<0.0098	<0.0098	0.025	<0.0098	<0.0098	<0.0098	<0.0098	7.7	0.33
09/10-11/09	0.15	<0.098 ¹	0.41	0.10	0.56	<0.098 ¹	<0.098 ¹	8.0	1.1
03/15/10	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
09/15/10	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
MW-10									
08/11/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<1.0	4.21
10/21/99	<0.008	<0.008	<0.008	<0.008	0.00333	<0.008 ³	<0.008 ³	--	--
04/12/00	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--
06/27/00	--	--	--	--	--	--	--	8.61	21.2
09/28/00	--	--	--	--	--	--	--	3.39	22
03/29/06	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
03/21/07	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
03/25/08	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
09/08-09/08	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
03/30-31/09	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
09/10-11/09	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
03/15/10	0.10 ²	0.054 ²	0.046 ²	0.059 ²	0.18 ²	<0.0099 ²	<0.0099 ²	3.8	10.9
09/15/10	0.52	0.17	0.3	<0.096	1.2	<0.096	<0.096	4.9	9.3
MW-11									
08/11/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	2.03	<1.0
10/22/99	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081 ³	<0.0081 ³	--	--
06/21/01	--	--	--	--	--	--	--	--	--
03/18/02	--	--	--	--	--	--	--	--	--
09/16/03	--	--	--	--	--	--	--	--	--
12/15/03	0.0734	<0.0100	0.0632	0.0341	<0.0100	0.0878	0.0857	3.72	<1.0
03/25/04	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	3.06	<1.0
03/21/07	<0.00971	<0.00971	<0.00971	<0.00971	<0.00971	<0.00971	<0.00971	19.4	<1.0

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,b) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
MW-11 (cont)									
03/25/08	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	19.0	1.1
03/25/08	0.012	<0.0096	0.010	<0.0096	0.013	<0.0096	<0.0096	16.9	1.4
09/08-09/08	<0.011	<0.011	0.011	<0.011	0.012	<0.011	<0.011	16.5	<0.050
03/30-31/09	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	19.2	<0.050
09/10-11/09	0.024	0.034	0.04	0.016	0.036	<0.0098	0.019	29.7	<0.050
03/15/10	<0.0099	0.011	0.016	0.010	0.013	<0.0099	<0.0099	13.4	<0.050
09/15/10	0.013	0.017	0.018	0.012	0.02	<0.010	0.018	16.6	<0.052
MW-12									
08/11/99	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	7.01	17.6
10/21/99	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083 ³	<0.0083	--	--
03/29/06	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
03/21/07	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
03/25/08	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
09/08-09/08	0.017 ²	0.010 ²	<0.0099 ²	<0.0099 ²	0.039 ²	<0.0099 ²	<0.0099 ²	6.4	1.8
03/30-31/09	0.014	<0.0098	0.012	<0.0098	0.028	<0.0098	<0.0098	4.8	2.8
09/10-11/09	0.11	<0.097 ¹	<0.097 ¹	<0.097 ¹	0.22	<0.097 ¹	<0.097 ¹	5.5	1.6
03/15/10	0.025 ²	0.015 ²	0.012 ²	0.018 ²	0.045 ²	<0.010 ²	<0.010 ²	4.6	3.4
09/15/10	0.086 ²	0.028 ²	0.053 ²	0.011 ²	0.18 ²	<0.0096 ²	0.014 ²	6.4	2.2
MW-15									
08/10/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	2.1	<1.0
10/20/99	<0.0081	<0.0081	0.00153	<0.0081	<0.0081	<0.0081	<0.0081	--	--

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,b) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
MW-19									
08/11/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<1.0	<1.0
10/20/99	0.016	0.013	0.016	0.00743	0.015	0.00233	0.011	--	--
06/21/01	--	--	--	--	--	--	--	--	--
06/26/03	0.264	0.282	0.174	0.118	0.179	0.155	0.189	--	--
09/16/03	0.171	0.185	0.197	0.0894	0.191	0.0977	0.147	--	--
12/15/03	0.524	0.479	0.374	0.376	0.474	0.154	0.484	5.27	<1.0
03/26/04	0.209	0.168	0.128	0.127	0.182	0.0433	0.107	2.86	<1.0
03/26/04	0.170	0.137	0.0967	0.106	0.150	0.0363	0.0882	2.28	<1.0
09/23/04	0.613	0.390	0.317	0.562	0.530	0.145	0.350	4.24	2.93
03/14/05	0.151	0.111	0.080	0.125	0.126	0.0233	0.076	1.71	<1.0
03/14/05	0.155	0.109	0.085	0.135	0.131	0.0265	0.085	2.19	<1.0
03/29/06	0.093	0.076	0.066	0.0775	0.087	0.0348	0.063	3.76	<1.0
03/29/06	0.042	0.030	0.041	0.0327	0.032	0.0195	0.033	3.47	<1.0
03/21/07	0.151	0.121	0.0874	0.139	0.153	0.0417	0.0927	<1.0	<1.0
03/21/07	0.154	0.131	0.0896	0.126	0.160	0.0374	0.0894	<1.0	<1.0
03/25/08	0.046	0.039	0.049	0.021	0.042	<0.0097	0.027	1.30	12.9
03/25/08	0.36	0.31	0.35	0.15	0.34	0.053	0.19	0.92	3.5
09/08-09/08	0.40	0.54	0.46	0.26	0.41	0.077	0.28	<0.95	0.62
03/30-31/09	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.95	0.42
09/10-11/09	0.071	0.084	0.099	0.037	0.081	0.012	0.041	<0.95	1.1
03/15/10	0.24	0.30	0.32	0.15	0.29	0.046	0.18	0.98	0.41
09/15/10	0.61	0.91	0.55	0.57	0.66	0.1	0.59	1.8	0.12
11/16/11	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.95	<0.080
06/21/12	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
06/21/12 (F)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/20/12	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	--	--
09/20/12 (F)	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	0.41	<0.034
MW-20									
08/11/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	1.08	<1.0
10/20/99	.0012 ³	.00082 ³	.0016 ³	0.0011 ³	.00088 ³	<0.008 ³	<0.008	--	--
09/28/00	--	--	--	--	--	--	--	3.1	<1.0
06/26/03	0.375(I-02)	<0.0100	<0.0100	0.154(I-02)	<0.0100	<0.0100	<0.0100	--	--
09/16/03	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	--	--

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,b) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
MW-20 (cont)									
12/15/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	4.36	<1.0
03/26/04	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	2.53	<1.0
03/21/07	<0.00980	<0.00980	<0.00980	<0.00980	<0.00980	<0.00980	<0.00980	2.34	<1.0
03/25/08	0.012	<0.0099	0.015	<0.0099	<0.0099	<0.0099	<0.0099	3.2	0.63
03/30-31/09	INACCESSIBLE	--	--	--	--	--	--	--	--
09/10-11/09	0.014	0.017	0.022	<0.010	0.013	<0.010	0.016	2.4	0.053
03/15/10	<0.010	<0.010	0.011	<0.010	<0.010	<0.010	0.011	1.3	0.10
09/15/10	0.011	0.018	0.014	0.011	0.012	<0.0095	0.02	5.2	<0.052
11/16/11	(D) <0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	4.50	<0.080
06/21/12	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
06/21/12	(F) <0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	--	--
09/20/12	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/20/12	(F) <0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	11.9	<0.034
MW-21									
08/10/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	13.8	<1.0
10/19/99	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078 ³	<0.0078	--	--
06/21/01	--	--	--	--	--	--	--	--	--
06/21/01	--	--	--	--	--	--	--	--	--
03/18/02	--	--	--	--	--	--	--	--	--
06/26/03	0.569	<0.0100	0.646	<0.0100	<0.0100	3.06	2.35	--	--
09/16/03	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	--	--
12/15/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	12.6	<1.0
03/26/04	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	15.2	<1.0
09/23/04	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	14.6	<1.0
03/14/05	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	16.8	<1.0
03/29/06	<0.00952	<0.00957	<0.00958	<0.00956	<0.00953	<0.00954	<0.00955	16.4	<1.0
03/21/07	<0.0485	<0.0485	<0.0485	<0.0485	<0.0485	<0.0485	<0.0485	16.2	<1.0
03/25/08	<0.010	<0.010	<0.010	<0.010	0.011	<0.010	<0.010	14.6	0.33
09/08-09/08	0.011	0.022	0.017	0.012	0.012	<0.010	0.020	<0.95	0.058
03/30-31/09	<0.10	<0.10	<0.10	<0.10	0.018	<0.10	<0.10	11.1	<0.050
09/10-11/09	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	9.9	0.11
03/15/10	0.013	0.046	0.045	0.038	0.039	0.075	0.080	8.5	<0.050
09/15/10	0.011	<0.0098	<0.0098	<0.0098	0.021	<0.0098	<0.0098	8.7	<0.052
9/25/2011 ⁵	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	1.60	<0.08
10/10/11	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
06/21/12	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	--	--
06/21/12	(F) <0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	--	--
09/20/12	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	--	--
09/20/12	(F) <0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	15.5	0.052

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,h) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
MW-22									
08/10/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	1.66	<1.0
10/22/99	.0017 ³	0.0013 ³	0.0024 ³	0.0012 ³	0.002 ³	<0.0079 ³	0.0015 ³	--	--
03/21/07	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	4.15	<1.0
03/25/08	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	3.5	0.12
09/08-09/08	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	6.4	<0.050
03/30-31/09	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	3.6	<0.050
09/10-11/09	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	3.9	0.45
03/15/10	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	4.8	<0.050
09/15/10	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	5.7	<0.052
MW-24									
03/21/07	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<1.00	<1.00
MW-25									
08/09/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	1.42	3.71
10/19/99	<0.0079	<0.0079	<0.0079	<0.0079	<0.0079	<0.0079 ³	<0.0079	--	--
06/25/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	--	--
09/15/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	--	--
12/15/03	0.064	0.0628	<0.0100	<0.0100	0.0448	<0.0100	0.0608	17.6	<1.0
03/25/04	0.0142	<0.0100	<0.0100	<0.0100	0.0117	<0.0100	<0.0100	10.1	<1.0
09/22/04	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	3.97	<1.0
03/14/05	0.014	0.012	0.013	0.0192	0.015	<0.0100	0.010	12.3	<1.0
03/29/06	<0.00971	<0.00971	<0.00971	<0.00971	<0.00971	<0.00971	<0.00971	9.81	<1.0
03/21/07	0.0133	0.0111	<0.0100	<0.0100	0.0113	<0.0100	<0.0100	7.23	<1.0
03/25/08	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	6.0	0.15
09/08-09/08	<0.010	<0.010	<0.010	<0.010	0.019	<0.010	<0.010	<0.95	<0.050
03/30-31/09	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.95	<0.050
09/10-11/09	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.95	<0.050
03/15/10	0.021	0.022	0.025	0.011	0.025	<0.0096	0.013	<0.95	0.21
09/15/10	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.95	<0.052
9/25/2011 ⁵	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	1.60	<0.08
10/10/11	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	--	--
06/21/12	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	--	--
06/21/12 (F)	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	--	--
09/20/12	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/20/12 (F)	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	2.3	<0.034

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,b) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
MW-26									
08/09/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<1.0	<1.0
10/19/99	.0042 ³	.0039 ³	.0051 ³	.0027 ³	.0044 ³	<0.0081 ³	.0033 ³	--	--
04/12/00	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--
06/25/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	--	--
09/22/04	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	1.05	<1.0
03/14/05	0.024	0.014	0.015	0.0239	0.019	<0.0100	<0.0100	1.26	<1.0
03/29/06	<0.00952	<0.00952	<0.00952	<0.00952	<0.00952	<0.00952	<0.00952	<1.0	<1.0
03/25/08	<0.0099	0.011	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.70	0.38
09/08-09/08	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.95	<0.050
03/30-31/09	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.95	<0.050
09/10-11/09	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.95	<0.050
03/15/10	<0.0096	<0.0096	0.043 ⁴	<0.0096 ⁴	<0.0096	<0.0096	<0.0096	<0.95	<0.050
09/15/10	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.95	<0.052
9/25/2011 ⁵	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.95	<0.08
10/10/11	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	--	--
06/21/12	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
06/21/12 (F)	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	--	--
09/26/12	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/26/12 (D)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/26/12 (DF)	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	0.53	<0.034
09/26/12 (F)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.49	0.10
MW-27									
09/13/99	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	--	--
10/22/99	.0041 ³	.0013 ³	.006 ³	.0033 ³	.0042 ³	<0.032	<0.032	--	--
09/15/10	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
MW-28									
08/11/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	9.21	6.82
10/21/99	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082 ³	<0.0082	--	--
10/21/99	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081 ³	<0.0081	--	--
03/21/07	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
03/25/08	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--
09/15/10	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL			--	--	--	--	--	--

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,b) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
AGI-2									
08/10/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	10.6	1.84
10/20/99	.0014 ³	< 0.008	.0019 ³	.0014 ³	.0014 ³	< 0.008 ³	.0011 ³	--	--
06/25/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	--	--
03/21/07	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	0.00994	4.68	<1.0
09/10-11/09	0.29	<0.097 ¹	0.18	<0.097 ¹	0.32	<0.097 ¹	<0.097 ¹	6.0	0.18
03/15/10	0.43	0.12	0.23	0.14	0.51	0.027	0.095	4.9	0.053
09/15/10	0.55	0.15	0.2	0.17	0.61	0.03	0.17	7.7	<0.052
06/21/12	0.011	<0.010	<0.010	<0.010	0.012	<0.010	<0.010	--	--
06/21/12 (F)	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	--	--
09/20/12	0.011	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/20/12 (F)	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	12.8	0.073
MLU-1									
08/10/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<1.0	<1.0
10/20/99	.0012 ³	0.00091 ³	.0022 ³	<0.0079	<0.0079	<0.0079	.0013 ³	--	--
04/12/00	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--
06/25/03	0.0476	0.0264	<0.0100	0.0164	0.0285	<0.0100	0.0776	--	--
09/15/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	--	--
12/15/03	<0.0100	0.0653	<0.0100	<0.0100	0.051	<0.0100	<0.0100	<1.0	<1.0
03/25/04	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<1.0	<1.0
03/21/07	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	<1.0	<1.0
09/08-09/08	UNABLE TO LOCATE		--	--	--	--	--	--	--
09/10-11/09	0.012	0.011	0.021	<0.0098	0.014	<0.0098	0.011	<0.95	<0.050
03/15/10	<0.010	<0.010	0.066 ⁴	<0.010 ⁴	<0.010	<0.010	<0.010	<0.95	<0.050
09/15/10	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.95	<0.052
06/21/12	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	--	--
06/21/12 (F)	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	--	--
09/26/12	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
09/26/12 (F)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.40	0.041
MW-8									
08/09/99	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<1.0	1.21
10/20/99	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081 ³	<0.0081	--	--
01/06/00	--	--	--	--	--	--	--	--	--
04/12/00	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

WELL ID/ DATE	Benzo (a) anthracene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,b) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Arsenic (µg/L)	Lead (µg/L)
MW-8 (cont)									
06/27/00	--	--	--	--	--	--	--	<1.0	<1.0
09/28/00	--	--	--	--	--	--	--	3.1	<1.0
06/25/03	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	--	--
DECOMMISSIONED DECEMBER 2003									
MW-16									
03/21/07	<0.00980	<0.00980	<0.00980	<0.00980	<0.00980	<0.00980	<0.00980	<1.00	<1.00
ABANDONED									
MLU-3									
08/20/99	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<1.0	<1.0
10/20/99	0.0099	0.01	0.011	0.0075 ³	0.013	0.0019 ³	0.0075 ³	--	--
DISCONTINUED MONITORED/SAMPLING									

Table 3
Groundwater PAHs and Metals Analytical Results
Former Chevron Bulk Plant #1001327
1602 North Northlake Place
Seattle, Washington

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to 2010 were compiled from reports prepared by SAIC.

PAH = Polynuclear Aromatic Compounds

(µg/L) = Micrograms per liter

(Q-20) = The internal standard associated with this analyte was outside the normal acceptance criteria

(D) = Duplicate

(F) = Field Filtered

(I-02) = This sample was analyzed outside of the recommended holding time

ANALYTICAL METHOD:

Selected PAHs by EPA Method 8270C

Arsenic and Lead by EPA Method 6020

¹ Laboratory report indicates due to the sample matrix an initial dilution was necessary to perform the analysis. Therefore, the reporting limits for the GC/MS semivolatiles compounds were raised.

² Laboratory report indicates the surrogate data is outside the QC limits due to irresolvable matrix problems evident in the sample chromatogram.

³ Laboratory report indicates estimated value.

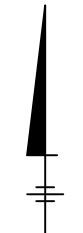
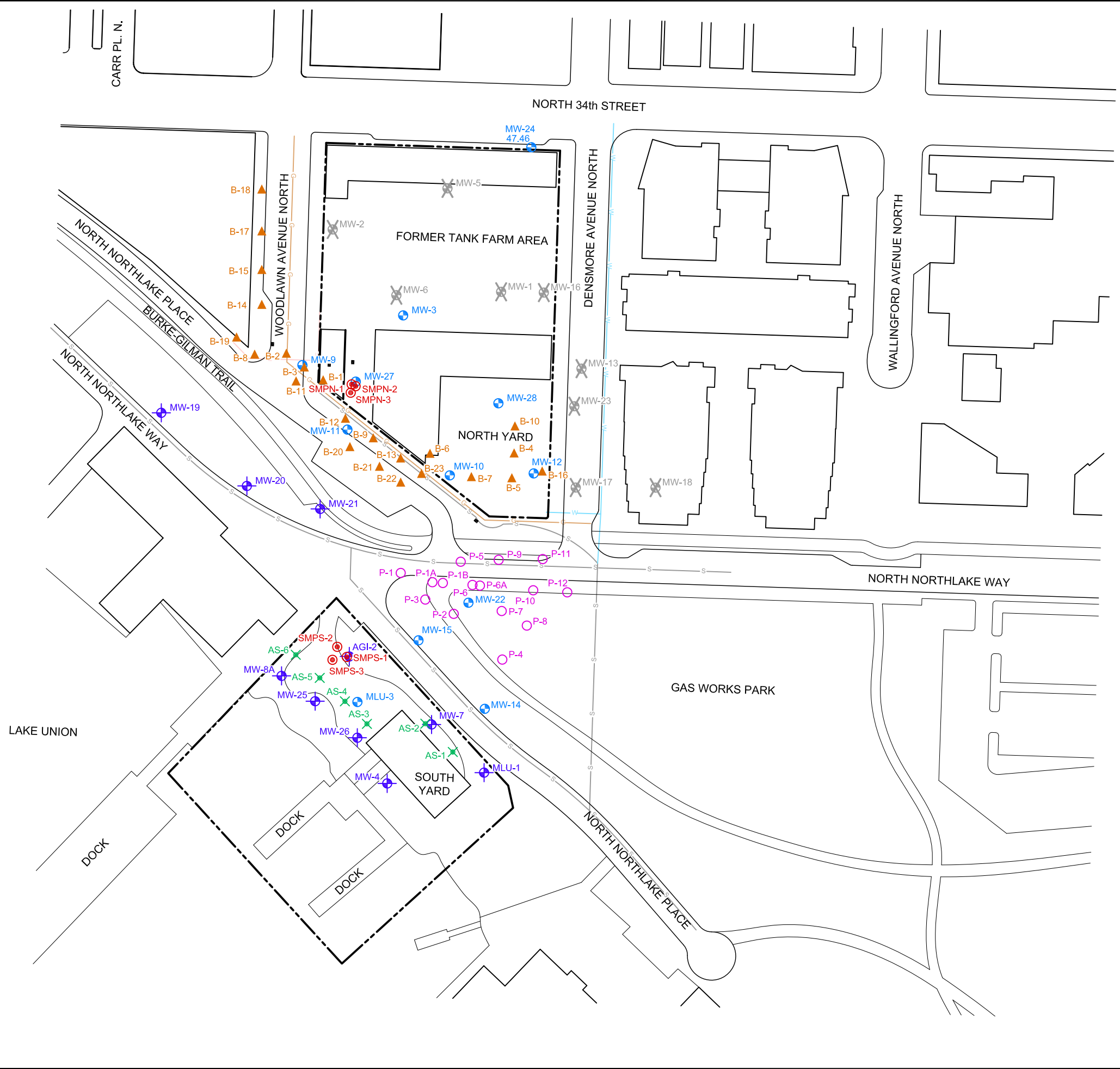
⁴ Laboratory report indicates Benzo (b) fluoranthene and benzo (k) fluoranthene were not resolved under the sample analysis conditions. The result reported for benzo (b) fluoranthene represents the combined total of both isomers.

⁵ Laboratory report indicates the sample was extracted outside of the method required holding time

ARCADIS

Figures

CITY: SYRACUSE, NY DIV/GROUP: ENV/CADD DB: E. KRAHMER, W. JONES PIC: J. VOGELY PM/TM: G. SPRICK TR: M. MacDANIEL LXR: ON/OFF/REF
 G:\ENVCAD\SYRACUSE\ACT\B0045799\0004\10007\DWG\GMR_2012\45799B01.dwg LAYOUT: 1 SAVER: 3/1/2013 9:30 AM ACADVER: 18.1.5 (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 3/1/2013 9:30 AM BY: JONES, WENDY
 XREFS: IMAGES: PROJECTNAME: ---
 45799X03
 45799X02

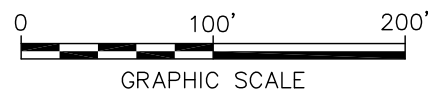


LEGEND:

- ▲ 2007 BORING LOCATIONS
- GROUNDWATER MONITORING WELL
- ✕ ABANDONED MONITORING WELL
- ✕ BIOSPARGE INJECTION WELL
- ⊕ COMPLIANCE MONITORING WELL
- SMP LOCATION
- CATCH BASIN
- SOIL BORING LOCATION
- NATURAL GAS LINE (APPROX.)
- UNDERGROUND ELECTRIC LINE (APPROX.)
- WATER LINE (APPROX.)
- SEWER LINE (APPROX.)

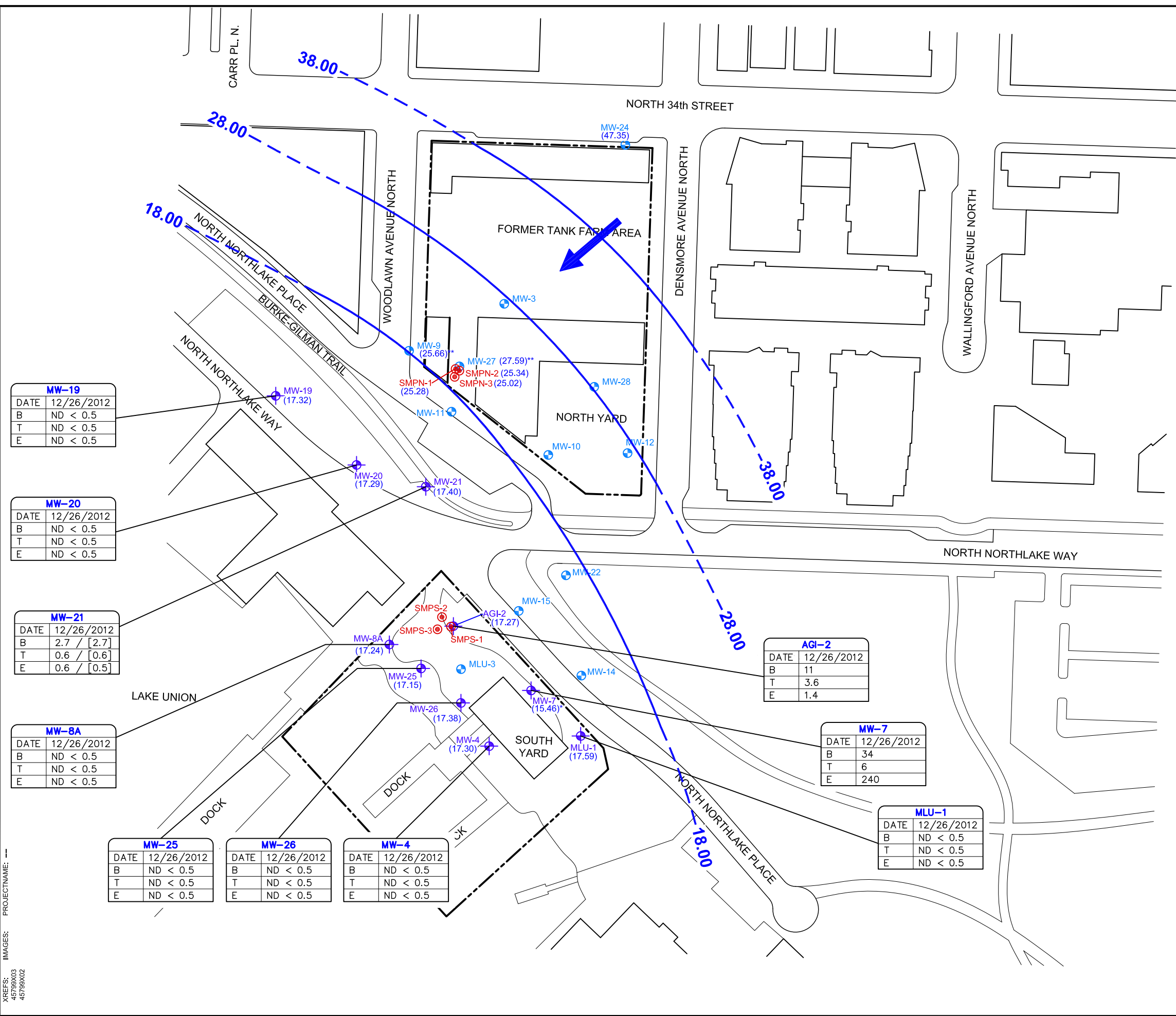
NOTES:

1. BASE MAP FROM A DRAWING BY SAIC TITLED "SITE MAP", DATED 09-14-07, @ A SCALE OF 1" = 60'. REVISED IN ACCORDANCE WITH A SURVEY DRAWING BY OTAK CONDUCTED IN APRIL & MAY, 2011.
2. ALL LOCATIONS OTHER THAN MONITORING WELLS ARE APPROXIMATE.



FORMER CHEVRON BULK PLANT No. 100-1327 FACILITIES NORTH / KING COUNTY (METRO) SEATTLE, WASHINGTON ANNUAL GROUNDWATER MONITORING REPORT 2012	
<h2 style="margin: 0;">SITE PLAN</h2>	
	FIGURE 1

CITY: SYRACUSE, NY DIV/GROUP: ENV/CADD DB: E. KRAHMER, W. JONES PIC: J. VOGELY PM/TM: G. SPRICK TR: M. MacDANIEL LXR: ONI-OFF-REF
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 XREFS: 45799X03 45799X02
 IMAGES: PROJECTNAME: --

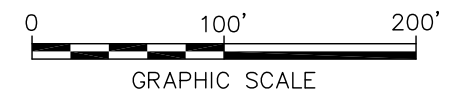


LEGEND:

- GROUNDWATER MONITORING WELL
 - COMPLIANCE MONITORING WELL
 - SMP LOCATION
- | AGI-2 | | WELL ID |
|-------|------------|---------------|
| DATE | 12/26/2012 | SAMPLING DATE |
| B | 11 | BENZENE |
| T | 3.6 | TOLUENE |
| E | 1.4 | ETHYLBENZENE |
- (17.59) GROUNDWATER ELEVATION IN FEET
 - 18**--- GROUNDWATER ELEVATION CONTOUR IN FEET (DASHED WHERE INFERRED)
 - DIRECTION OF GROUNDWATER FLOW
 - (ND) NOT DETECTED, VALUE SHOWN IS DETECTION LIMIT
 - ** LIGHT NON-AQUEOUS PHASE LIQUID PRESENT, NOT USED TO DEVELOP CONTOURS

NOTES:

1. BASE MAP FROM A DRAWING BY SAIC TITLED "SITE MAP", DATED 09-14-07, @ A SCALE OF 1" = 60'. REVISED IN ACCORDANCE WITH A SURVEY DRAWING BY OTAK CONDUCTED IN APRIL & MAY, 2011.
2. ALL LOCATIONS OTHER THAN MONITORING WELLS ARE APPROXIMATE.



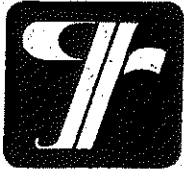
FORMER CHEVRON BULK PLANT No. 100-1327
 FACILITIES NORTH / KING COUNTY (METRO)
 SEATTLE, WASHINGTON
ANNUAL GROUNDWATER MONITORING REPORT 2012
POTENTIOMETRIC MAP WITH ANALYTICAL RESULTS
DECEMBER 26, 2012

FIGURE **4**

ARCADIS

Appendix A

Field Notes



GETTLER-RYAN INC.



TRANSMITTAL

March 30, 2012

G-R #385534

TO: Mr. Scott Zorn
ARCADIS
2300 Eastlake Ave E, Suite 200
Seattle, WA 98102

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

RE: **Former Chevron Bulk Plant
#1001327
1602 North Northlake Place
Seattle, Washington**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package First Quarter Event of March 23, 2012

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/1001327

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 #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 3-23-12 (inclusive)
 Sampler: J.P

Well ID: mw-3
 Well Diameter: 2 in.
 Total Depth: 15.42 ft
 Depth to Water: 12.00 ft

Date Monitored: 3-23-12

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]:
 xVF = x3 case volume = Estimated Purge Volume: 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 _____
 Discrete Bailer _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: 1400 (2400 hrs)
 Time Completed: 1430 (2400 hrs)
 Depth to Product: 11.90 ft
 Depth to Water: 12.00 ft
 Hydrocarbon Thickness: .10 ft
 Visual Confirmation/Description: YELLOWISH-BROWN
 Skimmer/Absorbent Sock (circle one)
 Amt Removed from Skimmer: gal
 Amt Removed from Well: 1/2 gal
 Water Removed: gal
 Product Transferred to: OM

Start Time (purge): _____
 Sample Time/Date: /
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____

Weather Conditions: _____
 Water Color: _____ Odor: Y / N
 Sediment Description: _____
 Volume: _____ gal. DTW @ Sampling: _____

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING 12 ppm

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 3.23.12 (inclusive)
 Sampler: J.P.

Well ID: MD-9
 Well Diameter: 2 in.
 Total Depth: 19.61 ft.
 Depth to Water: 10.55 ft.
2.06 xVF = =

Date Monitored: 3.23.12

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

Check if water column is less than 0.50 ft.

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

Purge Equipment:

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

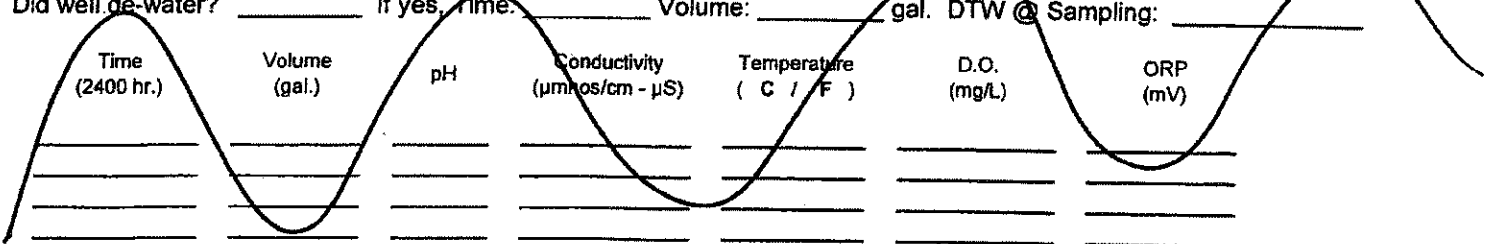
Sampling Equipment:

Disposable Bailer
 Pressure Bailer
 Discrete Bailer
 Peristaltic Pump
 QED Bladder Pump
 Other:

Time Started: 10:00 (2400 hrs)
 Time Completed: 10:30 (2400 hrs)
 Depth to Product: 10.35 ft.
 Depth to Water: 10.55 ft.
 Hydrocarbon Thickness: 20 ft.
 Visual Confirmation/Description: YELLOWISH-BROWN
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: gal.
 Amt Removed from Well: 1/2 gal.
 Water Removed:
 Product Transferred to: DM

Start Time (purge):
 Sample Time/Date: /
 Approx. Flow Rate: gpm.
 Did well de-water? If yes, Time:

Weather Conditions:
 Water Color: Odor: Y / N
 Sediment Description:
 Volume: gal. DTW @ Sampling:



LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING 10 ppm

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 3.23.12 (inclusive)
 Sampler: JP

Well ID: MW-27
 Well Diameter: 4 in.
 Total Depth: 40.00 ft.
 Depth to Water: 0.8 ft.
11.91 xVF = = x3 case volume = Estimated Purge Volume: gal.

Date Monitored: 3.23.12

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

Check if water column is less than 0.50 ft.

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

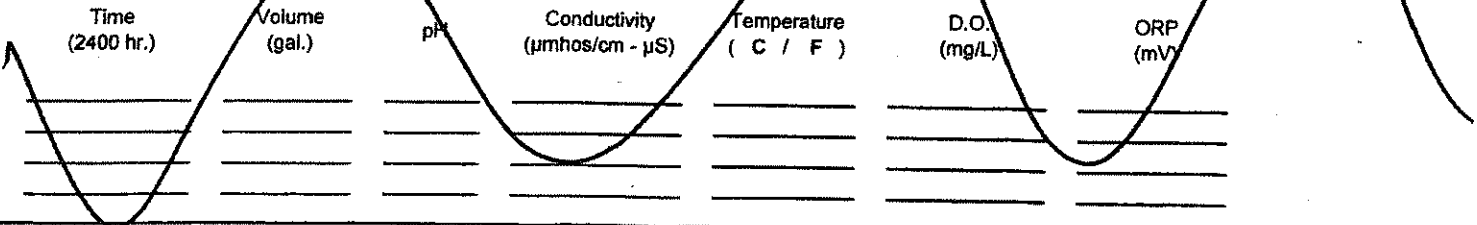
Purge Equipment:
 Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

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

Time Started: 14:40 (2400 hrs)
 Time Completed: 11:00 (2400 hrs)
 Depth to Product: 8.15 ft
 Depth to Water: 8.15 ft
 Hydrocarbon Thickness: 0.03 ft
 Visual Confirmation/Description: YELLOWISH BROWN
 Skimmer Absorbent Sock (circle one)
 Amt Removed from Skimmer: 1/2 gal
 Amt Removed from Well: 1/2 gal
 Water Removed:
 Product Transferred to: DM

Start Time (purge): _____
 Sample Time/Date: / _____
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Weather Conditions: _____
 Water Color: _____ Odor: Y / N
 Sediment Description: _____
 DTW @ Sampling: _____



LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING
P. BAKER JP

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



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 3.23.12 (inclusive)
 Sampler: J.P

Well ID: 3MPN-1
 Well Diameter: 2 in.
 Total Depth: 20.10 ft.
 Depth to Water: 0.27 ft.

Date Monitored: 3.23.12

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

Check if water column is less than 0.50 ft.

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

Purge Equipment:

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

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Discrete Bailer _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: 11:00 (2400 hrs)
 Time Completed: 11:30 (2400 hrs)
 Depth to Product: 0.25 ft
 Depth to Water: 0.27 ft
 Hydrocarbon Thickness: .02 ft
 Visual Confirmation/Description: VELOCIOUS BROWN
 Skimmer Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: 1/2 gal
 Water Removed: _____ gal
 Product Transferred to: DM

Start Time (purge): _____
 Sample Time/Date: /
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____

Weather Conditions: _____
 Water Color: _____ Odor: Y / N
 Sediment Description: _____
 Volume: _____ gal. DTW @ Sampling: _____

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING
J. GARRETT - PAINT 6 ppm

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 3.23.12 (inclusive)
 Sampler: JP

Well ID: OMP-2
 Well Diameter: 2 in.
 Total Depth: 10:00 ft.
 Depth to Water: 8.12 ft.
11.88 xVF = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Date Monitored: 3.23.12

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

Check if water column is less than 0.50 ft.

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

Purge Equipment:

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

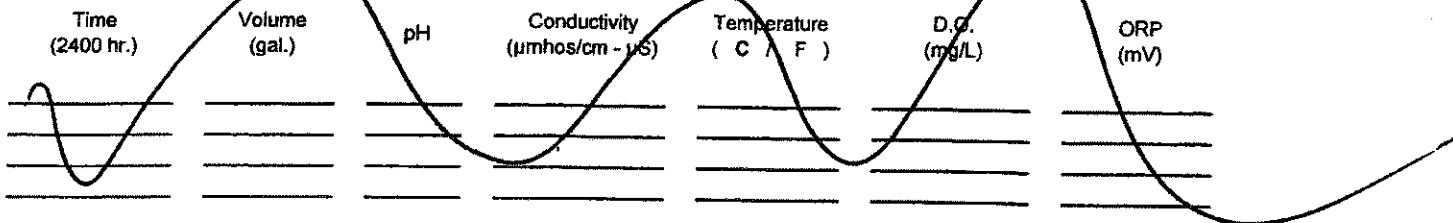
Sampling Equipment:

- Disposable Bailer _____
- Pressure Bailer _____
- Discrete Bailer _____
- Peristaltic Pump _____
- QED Bladder Pump _____
- Other: _____

Time Started: 1140 (2400 hrs)
 Time Completed: 1200 (2400 hrs)
 Depth to Product: 8.12 ft
 Depth to Water: 8.12 ft
 Hydrocarbon Thickness: 0.02 ft
 Visual Confirmation/Description: YELLOWISH BROWN
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: 1/2 gal
 Water Removed: _____ gal
 Product Transferred to: DN

Start Time (purge): _____
 Sample Time/Date: _____ / _____
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Weather Conditions: _____
 Water Color: _____ Odor: Y / N
 Sediment Description: _____
 DTW @ Sampling: _____



LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING
H. GUSKEY - PAINT 11 AM

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 3-23-12 (inclusive)
 Sampler: J.P.

Well ID: SMPN: 3
 Well Diameter: 2 in.
 Total Depth: 20.05 ft.
 Depth to Water: 0.30 ft.

Date Monitored: 3-23-12

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.75 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

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

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

Time Started: 12:30 (2400 hrs)
 Time Completed: 1:30 (2400 hrs)
 Depth to Product: _____ ft.
 Depth to Water: 0.30 ft.
 Hydrocarbon Thickness: _____ ft.
 Visual Confirmation/Description: _____
 Skimmer / Absorbent Sock (circle one) _____
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____ gal
 Product Transferred to: _____

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 - µS)	Temperature (C / F)	D.O. (mg/L)	DRP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING
H. (initials) J.P.

Add/Replaced Lock: X Add/Replaced Plug: X Add/Replaced Bolt: X 3




GETTLER-RYAN INC.



TRANSMITTAL

June 7, 2012
G-R #385534

TO: Mr. Scott Zorn
ARCADIS
2300 Eastlake Ave E, Suite 200
Seattle, WA 98102

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

RE: **Former Chevron Bulk Plant
#1001327
1602 North Northlake Place
Seattle, Washington**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Second Quarter Event of June 1, 2012

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/1001327

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 #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 6.1.12 (inclusive)
 Sampler: J.P.

Well ID: MW-3
 Well Diameter: _____ in.
 Total Depth: _____ ft.
 Depth to Water: _____ ft.

Date Monitored: 6.1.12

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

Check if water column is less than 0.50 ft.

xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

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

Purge Equipment:

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

Sampling Equipment:

- Disposable Bailer
- Pressure Bailer
- Discrete Bailer
- 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): _____
 Sample Time/Date: _____ / _____
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____

Weather Conditions: _____
 Water Color: _____ Odor: Y / N
 Sediment Description: _____
 Volume: _____ gal. DTW @ Sampling: _____

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING
INACCESSIBLE

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



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 6.1.12 (inclusive)
 Sampler: J.P.

Well ID: NM1-9
 Well Diameter: 2 in.
 Total Depth: 19.61 ft.
 Depth to Water: 11.75 ft.
7.86 xVF = = x3 case volume = Estimated Purge Volume: gal.

Date Monitored: 6.1.12

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

Check if water column is less than 0.50 ft.

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

Purge Equipment:

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

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Discrete Bailer _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: (2400 hrs)
 Time Completed: (2400 hrs)
 Depth to Product: 11.55 ft.
 Depth to Water: 11.75 ft.
 Hydrocarbon Thickness: .20 ft.
 Visual Confirmation/Description: YELLOWISH BROWN
 Skimmer Adsorbent Sock (circle one)
 Amt Removed from Skimmer: 1 gal
 Amt Removed from Well: 1 gal
 Water Removed: 1 LTR
 Product Transferred to: DM

Start Time (purge): _____
 Sample Time/Date: _____
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Weather Conditions: _____
 Water Color: _____ Odor: Y / N
 Sediment Description: _____
 DTW @ Sampling: _____

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING
H. C. Baker

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 6.1.12 (inclusive)
 Sampler: J.P.

Well ID: MW-27
 Well Diameter: 4 in.
 Total Depth: 10.00 ft.
 Depth to Water: 8.45 ft.
1.55 xVF = = x3 case volume = Estimated Purge Volume: gal.

Date Monitored: 6.1.12

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

Check if water column is less than 0.50 ft.

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

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

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

Time Started: 08:40 (2400 hrs)
 Time Completed: 09:00 (2400 hrs)
 Depth to Product: 8.25 ft
 Depth to Water: 8.45 ft
 Hydrocarbon Thickness: .20 ft
 Visual Confirmation/Description:
YELLOWISH-BROWN
 Skimmed/ Absorbent Sock (circle one) 1 LTR
 Amt Removed from Skimmer: 1 gal
 Amt Removed from Well: 1 LTR gal
 Water Removed: 1 LTR
 Product Transferred to: DM

Start Time (purge): _____
 Sample Time/Date: / _____
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Weather Conditions: _____
 Water Color: _____
 Sediment Description: _____
 Order: Y / N
 DTW @ Sampling: _____

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING

Retrapped

B. Basker

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: bx 3



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327 Job Number: 385534
 Site Address: 1602 North Northlake Place Event Date: 6.1.12 (inclusive)
 City: Seattle, WA Sampler: J.P.

Well ID: SMPN-1 Date Monitored: 6.1.12
 Well Diameter: 2 in.
 Total Depth: 20.10 ft.
 Depth to Water: 0.85 ft. Check if water column is less than 0.50 ft.
11.20 xVF = x3 case volume = Estimated Purge Volume: gal.

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

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

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

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

Time Started: 0910 (2400 hrs)
 Time Completed: 0920 (2400 hrs)
 Depth to Product: 0 ft
 Depth to Water: 0.85 ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: NONE
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: 0 gal
 Amt Removed from Well: 0 gal
 Water Removed: 0 gal
 Product Transferred to: 0 gal

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 - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: Bx3



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 10.1.12 (inclusive)
 Sampler: J.P.

Well ID: SMPN-2
 Well Diameter: 2 in.
 Total Depth: 20.00 ft.
 Depth to Water: 8.40 ft.
11.60 xVF

Date Monitored: 10.1.12

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

Check if water column is less than 0.50 ft.

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

Purge Equipment:

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

Sampling Equipment:

- Disposable Bailer _____
- Pressure Bailer _____
- Discrete Bailer _____
- Peristaltic Pump _____
- QED Bladder Pump _____
- Other: _____

Time Started: 0930 (2400 hrs)
 Time Completed: 0930 (2400 hrs)
 Depth to Product: 0.30 ft
 Depth to Water: 8.40 ft
 Hydrocarbon Thickness: .0 ft
 Visual Confirmation/Description: YELLOWISH BROWN
 Skimmer / Absorbent Sock (circle one) Skimmer
 Amt Removed from Skimmer: 0 gal
 Amt Removed from Well: 1 gal
 Water Removed: 1 LTR
 Product Transferred to: DN

Start Time (purge): _____
 Sample Time/Date: 1
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____

Weather Conditions: _____
 Water Color: _____ Odor: Y / N
 Sediment Description: _____
 Volume: _____ gal. DTW @ Sampling: _____

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: Px3



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #1001327
 Site Address: 1602 North Northlake Place
 City: Seattle, WA

Job Number: 385534
 Event Date: 6.1.12 (inclusive)
 Sampler: J.P.

Well ID: SMPN-3
 Well Diameter: 2 in.
 Total Depth: 20.05 ft.
 Depth to Water: 8.05 ft.
12.00 xVF = _____

Date Monitored: 6.1.12

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____ x3 case volume = Estimated Purge Volume: _____ 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 _____
 Discrete Bailer _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: 1700 (2400 hrs)
 Time Completed: 1810 (2400 hrs)
 Depth to Product: 5 ft
 Depth to Water: 8.05 ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: NONE
 Skimmer / Absorbent Sock (circle one) _____
 Amt Removed from Skimmer: 0 gal
 Amt Removed from Well: 0 gal
 Water Removed: 0 gal
 Product Transferred to: 0 gal

Start Time (purge): _____
 Sample Time/Date: _____ / _____
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____

Weather Conditions: _____
 Water Color: _____ Odor: Y / N _____
 Sediment Description: _____
 Volume: _____ gal. DTW @ Sampling: _____

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: QUARTERLY PRODUCT GAUGING AND BAILING

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: bx3

6-21-12 KC Metro OWW

0745 Arrive on site. tailgate review soon.

0800 Setup on MW-19. Prepare to Sample

~~0800~~ 0800 Begin purge of mw-19 PID = 3.4 DTW = 11.93

0845 Sample MW-19 for PAH (one sample filtered, one not)

0915 Setup on MW-21 PID = 0.4 DTW = 12.24

0920 Start purge at MW-21

0945 Sample MW-21 + MW-21 Filtered for PAH

1000 Setup on MW-20 PID = 43.4 DTW = 12.53

1010 Start Purge of MW-20.

1030 Sample MW-20 + MW-20 Filtered

1100 Pack up Van and go to get more ICE Lunch

1120 Setup on MW-8A PID = 0.8 DTW = 11.45

1135 Start Purge of MW-8A

1150 Sample MW 8A. MW 8A Filtered + Dip 2

1210 Setup on MW-25. PID = 1.4 DTW = 12.01

1215 Begin Purge of MW-25

1230 Sample MW-25 and MW-25 Filtered.

1300 Setup on MW-26. PID = 0.9 DTW = 11.68

1310 Start Purge of MW-26

1325 Sample MW-26 + MW 26 Filtered

1340 = Setup on MLU-2 PIP = 0.1 DTW = 1896

1345 start ~~to~~ Purge of MLU-2

1400 Sample MLU-2 + MLU-2 Filtered

1420 Setup on MW-7 PIP = 62.4 DTW = 219

1430 Start Purge of MW-7

1445 Sample MW-7 + MW-7 Filtered

1505 Setup on AGI-2 PIP = ~~11.64~~^{245.6} DTW = 11.69

1510 Start Purge of AGI-2

1525 ~~Start~~ sample at AGI-2 + AGI-2 Filtered

1540 Al Katal onsite to drop key to MW-4

1550 Setup on MW-4 PIP = 1.6 DTW = 11.49

1600 begin Purge of MW-4

1615 Sample MW-4 + MW-4 Filtered

1630 Clean Site

1700 Alerts out!!!

~~1840 Setup on MLU-2 PIP = 0.1 DTW = 1896~~

ARCADIS Groundwater Sampling Form

Project No. GP09BPNA.WA

Well ID MW-19

Date 6-28-12

Project Name/Location KCMetro

Weather Clear

Measuring Pt. N
Description N

Screen Setting (ft-bmp) _____

Casing Diameter (in.) 2"

Well Material APVC
SS

Static Water Level (ft-btoc) 11.93

Total Depth (ft-btoc) 21

Water Column/ Gallons in Well _____

Initial PID Reading (ppm) 34

TOC Elevation _____

Pump Intake (ft-btoc) 17'

Purge Method: _____

Sample Method LF

Pump On/Off 830

Volumes Purged 2.65

Centrifugal ✓
Submersible _____
Other _____

Sample Time: Label 0848
Start 0842
End 0850

Replicate/ Code No. _____

Sampled by Sum

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0835	5	0.15	12.13	0.75	5.49	0.223	-	1.05	14.81		Clear	None
0838	3	0.15	12.15	1.20	5.51	0.233	-	1.03	14.87		Clear	-
0841	3	0.15	12.15	2.65	5.54	0.234	-	1.21	14.96		-	-

Constituents Sampled	Container	Number	Preservative
<u>PAH</u>	<u>1 L Amber</u>	<u>4</u>	<u>-</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: Parking lot

Condition of Well: Good

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: Yes / No

Well Locked at Departure: Yes / No

Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. GP09BPNA.WA

Well ID MW-21

Date 6-21-12

Project Name/Location KC Metro

Weather clear

Measuring Pt. Description N Screen Setting (ft-bmp) _____

Casing Diameter (in.) 2"

Well Material PVC
SS _____

Static Water Level (ft-btoc) 12.24 Total Depth (ft-btoc) 20.60

Water Column/ Gallons in Well _____

Initial PID Reading (ppm) 0.4

TOC Elevation _____ Pump Intake (ft-btoc) 16.30

Purge Method: _____

Sample Method LR

Pump On/Off 0930 Volumes Purged 6.6

Centrifugal _____
Submersible X
Other _____

Sample Time: Label 0945 Replicate/ Code No. _____
Start 0941
End 0950

Sampled by SWW

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0935	5	0.10	12.54	6.5	6.60	0.400	-	1.21	14.72		clear	none
0938	3	0.10	12.54	0.80	6.60	0.400	-	1.26	14.70		-	-
0941	3	0.10	12.54	1.10	6.60	0.404	-	1.26	14.69		-	-

Constituents Sampled	Container	Number	Preservative
<u>PH</u>	<u>1L Amber</u>	<u>4</u>	<u>-</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: East parking lot Well Locked at Arrival: Yes / No

Condition of Well: Good Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. GP09BPNA.WA

Well ID MW-20

Date 6-21-12

Project Name/Location KC Metro

Weather Clear

Measuring Pt. N Screen
Description N Setting (ft-bmp) _____

Casing Diameter (in.) 2"

Well Material PVC
SS

Static Water Level (ft-bloc) 12.53 Total Depth (ft-bloc) 21

Water Column/ Gallons in Well _____

Initial PID Reading (ppm) 43.4

TOC Elevation _____ Pump Intake (ft-bloc) 17

Purge Method: _____

Sample Method LF

Pump On/Off 1010 Volumes Purged 2.5

Centrifugal X
Submersible _____
Other _____

Sample Time: Label 1030 Replicate/ Code No. _____
Start 1022
End 1030

Sampled by Slu

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1015	5	0.20	12.67	1.00	6.14	0.548	—	1.56	15.13	—	Clear	None
1018	3	0.20	12.67	1.60	6.12	0.545	—	1.39	15.08	—	—	—
1021	3	0.20	12.67	2.20	6.12	0.544	—	1.31	15.05	—	—	—

Constituents Sampled	Container	Number	Preservative
<u>PAH</u>	<u>1 L Amber</u>	<u>4</u>	<u>—</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: Parking lot Well Locked at Arrival: Yes / No

Condition of Well: good Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. GP09BPNA.WA

Well ID AGI-2

Date 6-21-12

Project Name/Location PC Metro

Weather Clear

Measuring Pt. Screen
Description Setting (ft-bmp)

Casing Diameter (in.) 2"

Well Material PVC
SS

Static Water Level (ft-btoc) 25.56
11.64 Total Depth (ft-btoc) 22.5

Water Column/ Gallons in Well

Initial PID Reading (ppm) 295.6

TOC Elevation Pump Intake (ft-btoc) 17

Purge Method:

Sample Method LF

Pump On/Off 1510 Volumes Purged 2-4

Centrifugal ✓
Submersible
Other

Sample Time: Label 1525 Replicate/
Start 1522 Code No.
End 1530

Sampled by SWM

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1515	5	0.20	12.06	1.0	6.70	0.658	-	0.46	13.51	-	Clear	None
1518	3	0.20	12.01	1.6	6.70	0.657	-	0.39	13.50	-	-	-
1521	3	0.20	12.01	2.2	6.70	0.658	-	0.29	13.50	-	-	-

Constituents Sampled	Container	Number	Preservative
<u>PAA</u>	<u>1 L Amber</u>	<u>4</u>	<u>-</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: South Yard

Condition of Well: Good

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: Yes / No

Well Locked at Departure: Yes / No

Key Number To Well: _____

4-20-12

0745 arrive on site. Sam Miles. tailgate.

0800 Begin gauging wells.

0815 open MW-9 and discover LNAPL Sock in Well. Call Al. Kihal to discuss. It is decided that we will remove socks from MW-9, SMPN-1, and MW-27. Then gauge other site wells and come back and gauge North Yard wells last, allowing them to equalize.

well ID	DTP	DTW	Time	Pid
MW-21	-	13.82	0840	0.0
MW-20	-	14.11	0845	49.8
MW-14	-	13.50	0850	0.0

0900. code for Lock, South Yard appears to have changed. call office for CWB contact #. it's Cyle Hunter at 253-330-9220.

0925 gain access to South Yard - New Code is 1776.

well ID	DTP	DTW	Time	Pid
AGI-2	-	13.27	0930	119.4
MW-7	-	13.74	0935	4.7
MW-1	-	15.51	0940	0.0
MW-4	-	16.60	0950	0.0
MW-26	-	13.25	0957	0.0
MW-25	-	13.56	1005	0.0
MW-8A	-	12.97	1010	0.0
MW-9	13.85	14.47	1015	180.1
SMPN-3	11.22	11.22	1020	43.8
SMPN-2	10.95	11.11	1025	154.1
SMPN-1	10.96	11.14	1030	204.1
MW-27	11.07	11.30	1033	184.1

1040 Finish gauging wells. Replace LNAPL Socks.

1050 Setup on MW-20

9-20-12

MW-20

1105 start Purge of MW-20

	Temp	DO	SPL	ms/cm	PH	ORP
1110	17.9	0.71	0.73	0.63	6.41	95.2
1115	17.9	0.61	0.72	0.61	6.40	95.2
1120	17.8	0.43	0.73	0.63	6.44	91.4
1120	17.8	0.41	0.72	0.62	6.41	91.7

1130 Sample MW-20 for ePAH, Diss PPAH, diss lead, diss ~~arsenic~~
Benzene, toluene, ethylbenzene, + naphthalenes.

1155 Setup on MW-21

1200 begin Purge of MW-21

	Temp	DO	SPL	ms/cm	PH	ORP
1205	17.1	0.85	0.411	0.349	7.22	83.6
1210	17.1	0.63	0.410	0.348	7.23	77.1
1215	17.1	0.59	0.410	0.348	7.23	77.0
1220	17.1	0.55	0.411	0.349	7.23	76.5

1225 Sample MW-21 for Same.

1240 Setup on MW-19

1250 start Purge of MW-19

	Temp	DO	SPL	ms/cm	PH	ORP
1255	17.0	0.68	0.212	0.179	6.20	108.9
1300	17.0	0.65	0.211	0.179	6.18	108.1
1305	17.0	0.64	0.211	0.178	6.18	108.7
1310	17.0	0.62	0.212	0.179	6.17	107.8

1315 Sample MW-19 for Same.

1330 Lunch.

1400 Setup on MW-25.

1410 ~~at~~ Begin Purge of MW-25

	Temp	DO	SPL	ms/cm	PH	ORP
1420	15.0	0.44	0.603	0.488	7.15	70.6
1425	15.1	0.41	0.604	0.487	7.14	69.7
1430	14.9	0.42	0.605	0.489	7.13	69.4

1435 Sample MW-25 for Same.

9-20-12

MW-7

1500 Setup on MW-7

1505 Begin gauging purging MW-7

Time	Temp	DO	SPC	ms/cm	pH	ORP
1510	14.1	0.74	0.89	0.70	6.70	115.1
1515	14.1	0.64	0.87	0.71	6.70	115.2
1520	14.1	0.61	0.88	0.70	6.70	115.1

1525 Sample MW-7 for Same. ★

AGI-2

1545

Setup on AGI-2

1550 Start Purge of AGI-2

Time	Temp	DO	SPC	ms/cm	pH	ORP
1555	14.6		0.597	0.478	6.77	107.4
1600	14.6		0.597	0.477	6.76	101.1
1605	14.6		0.597	0.477	6.78	101.2
1610	14.6		0.594	0.476	6.78	101.0

1615 Sample AGI-2 for Same ★

1630 Clean up Site.

1645 Arcadis out. 1 drum (SSg) 1/2 full onsite.

KC Metro 9.21.12 Day 2 GNUM

WENT TO
2.00000

0900 Arrive on site. 2. Calibrate PID & PSI
Integrate, then PPM of air. The work remains
same

1000 AR off site, calibrate PID & PSI

1020 Mob to MW-8A PID = 0.0
DTW = 12.97
1100 Sample @ MW-8A TD = 28.13

1150 Mob to MW-26 PID = 0.0
DTW = 13.28
1230 Sample @ MW-26 TD = 20.21

1310 Mob to MW-4 PID = 0.0
DTW = 16.59
1350 Sample @ MW-4 TD = 19.78

1400 @ MW-4 while sampling, well
dewatered, start to measure recharge

1420 Fill 2nd Amber & dewater, call
AK, he said to sample next well
& come back to MW-4

1437 Mob to MLU-1 PID = 0.0
DTW = 15.51
1510 Sample @ MLU-1 TD = 22.65

1535 Mob back to MW-4 & finish sample

1605 Talk to AK

1639 ARCADIS OFF SITE

12C Macro 9-26-17

GMM

P. Lohmeyer

800 Arrive on site, don PPE, do tailgate. Review SW
real PID

870 Hanging around

MW-8A PID: 0.0 DTW = 13.61

MW-2 PID: 0.0 DTW = 13.31

MW-4 PID: 0.0 DTW = 16.62

MLU-1 PID: 0.0 DTW = 15.55

843 Mob to MLU-1

905 Sample MLU-1

930 Mob to MW-4

945 Sample MW-4 De-waterers after 2.5 ambers
filled. I will move on & sample MW-8A while
MW-4 recharges.

1015 Mob to MW-8A

1030 Sample @ MW-8A

1105 Mob back to MW-4 sample 1 more amber
(before it de-watered)

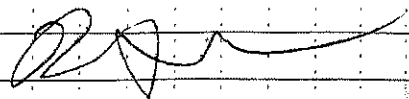
1120 Set up at MW-2C

1145 Sample MW-2C & DUP-1

1230 Mob back to MW-4 & finish sampling

1300 Clean site

1315 ARCADIS OFF SITE



ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. Chevron / KC Metro 100-1327

Well ID MLU-1

Date 9/26/2012

Project Name/Location 1602 North Northlake Way Seattle, WA

Weather Clear

Measuring Pt. Description TLS Screen Setting (ft-bmp) — Casing Diameter (in.) 4

Well Material PVC SS

Static Water Level (ft-btoc) 15.55 Total Depth (ft-btoc) 22.65 Water Column/ Gallons in Well —

Initial PID Reading (ppm) 0.0

TOC Elevation — Pump Intake (ft-btoc) — Purge Method: LFP

Sample Method Grab

Pump On/Off — Volumes Purged — Centrifugal — Submersible — Other —

Sample Time: Label — Replicate/ Code No. —
Start —
End —

Sampled by RWL

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
852	0	2.0	15.55		4.99	0.102	—	1.43	13.0	190.1	0.0	—
855	3				4.95	0.81	—	0.72	13.1	177.9	1	1
858	6				4.97	0.86	—	0.44	13.2	167.2	1	1
801	9		15.39		4.93	0.72	—	0.39	13.1	163.3	1	1
SAMPLE @ 905												

Constituents Sampled	Container	Number	Preservative
<u>c-PAHs</u>	<u>1L Amber</u>	<u>2</u>	<u>NA</u>
<u>D-c-PAHs</u>	<u>" "</u>	<u>2</u>	<u>NA</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: SE Corner Lower Pond Well Locked at Arrival: Yes / No

Condition of Well: Good Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. 100-1327
~~SP000127A-02709~~

Well ID MLU-1

Date 9/20/2012

Project Name/Location ARCO 986 14359 15th Ave. NE, Seattle, WA

Weather _____

Measuring Pt. _____ Screen _____
 Description TOC Setting (ft-bmp) _____

Casing _____
 Diameter (in.) 4

Well Material PVC
 SS

Static Water Level (ft-btoc) 15.51 Total Depth (ft-btoc) 22.65

Water Column/ _____
 Gallons in Well _____

Initial PID _____
 Reading (ppm) 0-0

TOC Elevation _____ Pump Intake (ft-btoc) _____

Purge Method: LFP

Sample Method GRAB

Pump On/Off _____ Volumes Purged _____

Centrifugal _____
 Submersible _____
 Other _____

Sample Time: Label _____ Replicate/ _____
 Start _____ Code No. _____
 End _____

Sampled by Rwl

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (μ Mhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°F)	Redox (mV)	Appearance	
											Color	Odor
1454	0	<u>200</u>	<u>15.51</u>	<u>0</u>	<u>4.98</u>	<u>0.125</u>	<u>—</u>	<u>0.94</u>	<u>13.7</u>	<u>206.5</u>	<u>Clear</u>	<u>—</u>
1457	3				<u>4.97</u>	<u>0.124</u>	<u>—</u>	<u>0.74</u>	<u>13.6</u>	<u>189.9</u>	<u>1</u>	<u>1</u>
1500	6				<u>5.05</u>	<u>0.125</u>	<u>—</u>	<u>0.63</u>	<u>13.6</u>	<u>177.3</u>	<u>1</u>	<u>1</u>
1503	9				<u>5.16</u>	<u>0.125</u>	<u>—</u>	<u>0.53</u>	<u>13.5</u>	<u>169.6</u>	<u>1</u>	<u>1</u>
1506	12				<u>5.16</u>	<u>0.126</u>	<u>—</u>	<u>0.50</u>	<u>13.5</u>	<u>158.8</u>	<u>1</u>	<u>1</u>
1509	15		<u>15.57</u>		<u>5.18</u>	<u>0.126</u>	<u>—</u>	<u>0.49</u>	<u>13.5</u>	<u>155.1</u>	<u>1</u>	<u>1</u>

Constituents Sampled	Container	Number	Preservative
GRO	VOA		HCL
BTEX	VOA	<u>3</u>	HCL
TOTAL LEAD Diss ArS	POLY	<u>1</u>	HNO3
DISSOLVED LEAD	POLY		UNPRES

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: SW corner of Spord Well Locked at Arrival: Yes / No

Condition of Well: Good Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. Chevron / KC Metro 100-1327

Well ID MW-26

Date 9/26/2012

Project Name/Location 1602 North Northlake Way Seattle, WA

Weather Sunny

Measuring Pt. TOC Screen
 Description Setting (ft-bmp)

Casing Diameter (in.) 4

Well Material x PVD
 SS

Static Water Level (ft-btoc) 13.31 Total Depth (ft-btoc) 20.21

Water Column/ Gallons in Well

Initial PID Reading (ppm) 0.0

TOC Elevation Pump Intake (ft-btoc)

Purge Method: LFP

Sample Method Grab

Pump On/Off Volumes Purged

Centrifugal
 Submersible
 Other

Sample Time: Label Replicate/ Code No. DUP-1
 Start
 End

Sampled by RWL

Time	Minutes Elapsed	Rate (gpm) (min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°F)	Redox (mV)	Appearance	
											Color	Odor
1130	0	200	13.31	-	6.51	0.369	-	1.10	14.4	168.7	Clear	✓
1133					6.44	0.373	-	0.71	14.7	148.4		
1136					6.40	0.375	-	0.69	14.8	145.6		
1139					6.41	0.379	-	0.62	14.7	144.0		
SAMPLE @ 1140 DUP-1												

Constituents Sampled	Container	Number	Preservative
<u>cPAH</u>	<u>1 L Amber</u>	<u>2</u>	<u> </u>
<u>D-cPAH</u>	<u>" "</u>	<u>2</u>	<u> </u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.28	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: <u>Yes</u> / No
Condition of Well: <u>Good</u>	Well Locked at Departure: <u>Yes</u> / No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: <u> </u>

ARCADIS Groundwater Sampling Form

Project No. GP09BPNA.WA

Well ID MW-26

Date 9-21-12

Project Name/Location KC metro

Weather overcast

Measuring Pt. Description Top

Screen Setting (ft-bmp) —

Casing Diameter (in.) 4

Well Material PVC SS

Static Water Level (ft-btoc) 13.48

Total Depth (ft-btoc) 20.21

Water Column/ Gallons in Well —

Initial PID Reading (ppm) 0.0

TOC Elevation —

Pump Intake (ft-btoc) —

Purge Method: LFP

Sample Method Grab

Pump On/Off —

Volumes Purged —

Centrifugal
Submersible
Other

Sample Time: Label 1230
Start 1223
End 1303

Replicate/ Code No. DUP-1

Sampled by RWC

Time	Minutes Elapsed	Rate (gpm) (ml/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1210	0	200	13.48	0	5.82	0.398	—	2.29	15.0	164.8	Clear	—
1213	3				5.85	0.398	—	2.28	15.0	157.3	1	1
1216	6				5.91	0.399	—	2.13	15.0	148.5	1	1
1219	9				5.97	0.401	—	1.80	15.0	140.0	1	1
1222	12		14.06		6.00	0.401	—	1.45	15.0	134.2	1	1
SAMPLE @ 1230 DUP-1												

Constituents Sampled	Container	Number	Preservative

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: NW corner of building 4

Condition of Well: Good

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: Yes / No

Well Locked at Departure: Yes / No

Key Number To Well:

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. Chevron / KC Metro 100-1327

Well ID MW-8A

Date 9/26/2012

Project Name/Location 1602 North Northlake Way Seattle, WA

Weather Sunny

Measuring Pt. TOC Screen — Casing Diameter (in.) 2
 Description TOC Setting (ft-bmp) —

Well Material x PVC — SS

Static Water Level (ft-btoc) 13.01 Total Depth (ft-btoc) 25.13 Water Column/ Gallons in Well —

Initial PID Reading (ppm) 0-0

TOC Elevation — Pump Intake (ft-btoc) — Purge Method: LFP

Sample Method Grab

Pump On/Off — Volumes Purged — Centrifugal — Submersible — Other —

Sample Time: Label — Replicate/ Code No. —
 Start —
 End —

Sampled by RwL

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1020	0	200	13.01	0	5.91	0.422	—	1.51	14.1	167.6	1	—
1023					5.85	0.436	—	0.73	14.1	167.6	1	—
1026					5.83	0.438	—	0.62	14.2	166.8	1	—
1029			13.06		5.81	0.441	—	0.58	14.1	165.7	1	—
SAMPLE @ 1030												

Constituents Sampled	Container	Number	Preservative
<u>CPANS</u>	<u>1L Amber</u>	<u>2</u>	<u>—</u>
<u>D-CPANS</u>	<u>"</u>	<u>2</u>	<u>—</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>SW side of lower yard</u>	Well Locked at Arrival: Yes / <u>(No)</u>
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <u>(No)</u>
Well Completion: <u>Flush Mount / Stick Up</u>	Key Number To Well: <u> </u>

ARCADIS Groundwater Sampling Form

Project No. KL Metro GROBENA 0932 Well ID MW-8A

Page 1 of 1
Date 9-21-12

Project Name/Location ARCO # 5237 / 13325 100th Avenue, Kirkland, Washington

Measuring Pt. TOC Screen — Casing 2
Description TOC Setting (ft-bmp) — Diameter (in.) 2

Weather —
Well Material K PVC
— SS

Static Water Level (ft-btoc) 12.77 Total Depth (ft-btoc) 25.13 Water Column/
Gallons in Well —

Initial PID Reading (ppm) 0.0

TOC Elevation — Pump Intake (ft-btoc) — Purge Method: LFP
Pump On/Off — Volumes Purged — Centrifugal —
Submersible — Other —

Sample Method Grab

Sample Time: Label 11:00 Replicate/
Start 10:58 Code No. —
End 11:27

Sampled by Rwl

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1042	0	200	12.77	0	5.00	0.277	—	0.67	14.4	167.3	Clear	—
1045	3				5.02	0.255	—	0.54	14.2	156.5	1	1
1048	6				5.27	0.410	—	0.59	14.1	136.2	1	1
1051	9				5.51	0.436	—	0.46	13.9	116.0	1	1
1054	12				5.57	0.437	—	0.41	14.0	112.7	1	1
1057	15		13.06		5.58	0.436	—	0.39	14.0	110.9	1	1
SAMPLE @ 1100												

Constituents Sampled	Container	Number	Preservative
GRO			HCL
BTEX			HCL

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: NW Side of Lewis Yard Well Locked at Arrival: Yes / No
 Condition of Well: Good Well Locked at Departure: Yes / No
 Well Completion: Flush Mount / Stick Up Key Number To Well: —

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. Chevron / KC Metro 100-1327

Well ID MW-4

Date 9/26/2012

Project Name/Location 1602 North Northlake Way Seattle, WA

Weather Clear

Measuring Pt. Description TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 2

Well Material x PVC — SS

Static Water Level (ft-bloc) 16.62 Total Depth (ft-bloc) 19.78 Water Column/ Gallons in Well —

Initial PID Reading (ppm) 20.0

TOC Elevation — Pump Intake (ft-bloc) — Purge Method: LFP

Sample Method Grab

Pump On/Off — Volumes Purged — Centrifugal — Submersible — Other —

Sample Time: Label — Replicate/ Start — Code No. — End —

Sampled by RWL

Time	Minutes Elapsed	Rate (gpm)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°F)	Redox (mV)	Appearance	
											Color	Odor
935	0	2.00 2.00	16.62	0	6.11	0.119	—		14.0	152.1	Clear	—
938	3				5.82	0.120	—		14.1	141.9	1	1
941	6				5.80	0.123	—		14.1	138.5	1	1
944	9				5.79	0.120	—		14.2	135.7	Cloudy	1
SAMPLE @ 941 945												

Constituents Sampled	Container	Number	Preservative
C - PAHS	1 L Amber	2	—
D - c PAHS	" "	2	—

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>SW side building Lower yard</u>	Well Locked at Arrival: <u>Yes</u> / No
Condition of Well: <u>Good</u>	Well Locked at Departure: <u>Yes</u> / No
Well Completion: <u>Flush Mount / Stick Up</u>	Key Number To Well: <u>—</u>

ARCADIS Groundwater Sampling Form

Project No. GP09BPNA.WA Well ID MW-4

Date 9-21-12

Project Name/Location _____

Weather Cloudy

Measuring Pt. TOC Screen Setting (ft-bmp) _____ Casing Diameter (in.) 2

Well Material PVC SS

Static Water Level (ft-bloc) 16.59 Total Depth (ft-bloc) 19.78 Water Column/ Gallons in Well _____

Initial PID Reading (ppm) 00

TOC Elevation _____ Pump Intake (ft-bloc) _____ Purge Method: LFP

Sample Method Grab

Pump On/Off _____ Volumes Purged _____ Centrifugal _____ Submersible _____ Other _____

Sample Time: Label _____ Replicate/ Code No. _____
Start _____
End _____

Sampled by Rwh

Time	Minutes Elapsed	Rate (gpm) (ngl/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°F)	Redox (mV)	Appearance	
											Color	Odor
1334	0	200	16.59	0	6.37	0.147	—	1.47	14.3	162.4	Cloudy	—
1337	3				5.87	0.145	—	1.35	14.3	159.3	1	1
1340	6				5.88	0.147	—	1.10	14.3	149.1	1	1
1343	9				5.88	0.148	—	1.01	14.3	146.4	1	1
1346	12				5.87	0.149	—	0.96	14.2	143.7	1	1
SAMPLE @ 1350												

Constituents Sampled	Container	Number	Preservative

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: SW side of building Well Locked at Arrival: Yes / No

Condition of Well: Good Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____



Groundwater Monitoring Well Gauging Form

Site ID: *KC Metro*

Project #: *GP09BPNA.WA*

Site Address:

Date: *12/26/12*

FID

Well ID	Time	Sheen/ Odor	LNAPL Depth	LNAPL Thickness	DTW	TD	Notes
MW-24	0830	0.0 ppm	—	—	22.42	—	—
MW-9	0838	0.0 ppm	10.62'	^{AK} 11.60' 1'	11.60'	—	TD not measured b/c LNAPL did not want to co-terminate IF probe
SMPN-3	0850	0.0 ppm	—	—	8.89'	14.9'	—
SMPN-2	0856	0.0 ppm	—	—	8.51'	14.79'	—
MW-27	0902	0.0 ppm	6.41'	0.03'	6.44'	—	See note for MW-9
MW-19 AK MW-21	0915	0.0	—	—	13.86	20.51	—
SMPN-1	0903	0.0 ppm	5'ella	5'een	8.50'	—	See note about
MW-20	0934	0.0 ppm	—	—	14.20' b/c	22.00	—
MW-19	0940	0.0 ppm	—	—	13.55	16.25'	—
AGT-2	0952	11	—	—	13.41	22.5	—
MW-23	0957	11	—	—	13.76'	19.9	—
MW-8A	1001	11	—	—	13.07'	25.10'	—
MW-26	1005	11	—	—	13.24'	20.00'	—
MW-4	1009	11	—	—	16.62'	19.78'	—
MLW-1	1012	11	—	—	15.31	22.1	—
MW-7	1014	11	—	—	15.67	16.5	—

ARCADIS Groundwater Sampling Form

Project No. KC Metro Well ID MW-20

Page 1 of 1

Date 12/26/12

Project Name/Location KC Metro

Measuring Pt. Description Wk Mark Screen Setting (ft-bmp) _____ Casing Diameter (in.) 2" Well Material PVC SS

Static Water Level (ft-btoc) 14.20' Total Depth (ft-btoc) 22' Water Column/Gallons in Well _____ Initial PID Reading (ppm) 0.0

TOC Elevation _____ Pump Intake (ft-btoc) 18' Purge Method: LF Centrifugal Submersible Other Peri Sample Method Grab

Pump On/Off _____ Volumes Purged _____ Sample Time: Label MW20 Replicate/Code No. _____ Start 1120 End _____ Sampled by AK

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
11:00	0				8.82	147		0.78	15.0	53.8		
11:06	6				8.32	159.0		0.34	14.3	43.6		
11:09	9				8.14	151.5		0.29	13.9	43.9		
11:12	12				7.90	155		0.33	13.4	57.2		
11:15	15				7.74	112.3		0.28	13.1	60.8		
11:18	18				7.60	119.1		0.24	12.8	63.1		
11:20	20				7.52	118		0.27	12.6	68.6		

Constituents Sampled	Container	Number	Preservative
<u>BTE</u>			

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____ Well Locked at Arrival: Yes / No

Condition of Well: _____ Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. _____ Well ID MW-21 Date 12-26-12
 Project Name/Location KC METRO Weather Partly
 Measuring Pt. Description TOC Screen Setting (ft-bmp) _____ Casing Diameter (in.) 2" Well Material PVC _____ SS
 Static Water Level (ft-btoc) 13.76 Total Depth (ft-btoc) _____ Water Column/ Gallons in Well _____ Initial PID Reading (ppm) 0.0
 TOC Elevation _____ Pump Intake (ft-btoc) 18' Purge Method: Low Flow Centrifugal _____ Submersible _____ Other _____
 Pump On/Off _____ Volumes Purged _____ Sample Method GRAB
 Sample Time: Label 1125 Replicate/ Code No. DUP-1 Sampled by SLM
 Start _____ End _____

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1112	0	200	13.76	0	5.78	0.113	—	1.76	19.15	9.7	Clear	X
1115	3	↓	—	600	6.06	0.148	—	1.98	17.72	3.2	1	1
1118	6	↓	—	1200	6.12	0.155	—	1.57	17.31	3.1	1	1
1121	9	↓	13.84	1800	6.16	0.101	—	1.52	14.58	3.5	1	1
SAMPLE @ 1125 ALSO DUP-1												

Constituents Sampled	Container	Number	Preservative
BTE	NCA	3	ACI

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>Plot 2</u>	Well Locked at Arrival: Yes / No
Condition of Well: <u>3/3 screens / Good seal</u>	Well Locked at Departure: Yes / No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____



Groundwater Sampling Form AGI-2

Project No. _____ Well ID AGI-2 Date 12-26

Project Name/Location KC METRO Weather RAIN

Measuring Pt. Description TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 2" Well Material PVC SS

Static Water Level (ft-bloc) 13.41 Total Depth (ft-bloc) — Water Column/ Gallons in Well _____ Initial PID Reading (ppm) 0.0

TOC Elevation — Pump Intake (ft-bloc) 18 Purge Method: Low Flow Centrifugal Submersible Other Sample Method GPAS

Pump On/Off — Volumes Purged —

Sample Time: Label 1205 Replicate/ Code No. — Sampled by SLM

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°F)	Redox (mV)	Appearance	
											Color	Odor
1145	0	200	13.41	0	6.39	0.573	—	2.26	13.51	59.1	Clear	A
1148	3	↓	—	0.00	6.41	0.567	—	2.11	13.22	20.0	1	1
1151	6	↓	—	1.00	6.39	0.570	—	1.90	13.41	22.1	1	1
1154	9	↓	—	1.00	6.39	0.572	—	1.89	13.49	22.3	1	1
SAMPLED @ 1205												

Constituents Sampled	Container	Number	Preservative
<u>BTE</u>	<u>VOA</u>	<u>3</u>	<u>HCL</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: N-SOUTH LOT Well Locked at Arrival: Yes / No

Condition of Well: 2 1/2 Broken / SEAL BAD Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. KC Metro Well ID MW-19 Page 1 of 1
 Date 12/26/12
 Project Name/Location _____
 Weather Overcast
 Measuring Pt. Description Blue Line Screen Setting (ft-bmp) _____ Casing Diameter (in.) 2 Well Material PVC SS
 Static Water Level (ft-btoc) 13.55 Total Depth (ft-btoc) 16.25 Water Column/ Gallons in Well _____ Initial PID Reading (ppm) 0.0
 TOC Elevation _____ Pump Intake (ft-btoc) ~15 Purge Method: LP Centrifugal _____ Submersible _____ Other per Sample Method grab
 Pump On/Off _____ Volumes Purged _____
 Sample Time: Label MW-19 Replicate/ Code No. _____ Start 1215 End _____
 Sampled by AK

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1155	2				7.31	25 ^{AK} 164		4.0	12.8	205		
1158	3				7.36	19.1 ^{AK} 158		4.18	13.2	170		
1201	6				7.74	142		2.6	15.1	988		
1204	9				7.73	145		2.33	15.1	85		
1209	13				7.62	143		1.79	15.1	82.4		
1212	16				7.52	142		1.40	15.0	83.4		
1215	19				7.44	143		1.06	15.1	89		

Constituents Sampled	Container	Number	Preservative
<u>B, T, E</u>	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.18	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____ Well Locked at Arrival: Yes / No
 Condition of Well: _____ Well Locked at Departure: Yes / No
 Well Completion: Flush Mount / Stick Up Key Number To Well: _____

Project No. _____ Well ID MW-8A
 Date 12-26-12
 Project Name/Location UL METRO Weather Partly
 Measuring Pt. Description FDL Screen Setting (ft-bmp) - Casing Diameter (in.) 2" Well Material PVC SS
 Static Water Level (ft-bloc) 13.07 Total Depth (ft-bloc) - Water Column/ Gallons in Well - Initial PID Reading (ppm) 0.0
 TOC Elevation - Pump Intake (ft-bloc) 18' Purge Method: Low Flow Centrifugal Submersible Other
 Pump On/Off _____ Volumes Purged - Sample Method GFAB
 Sample Time: Label 1245 Replicate/ Code No. - Sampled by SLM
 Start _____ End _____

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°F)	Redox (mV)	Appearance	
											Color	Odor
1230	0	200	13.07	0	5.80	0.051	-	7.43	10.92	1589	Clear	X
1233	3	↓	-	600	5.74	0.051	-	7.78	10.98	1726	1	1
1236	6	↓	-	1200	5.65	0.050	-	7.91	10.99	1832	1	1
1239	9	↓	-	1800	5.60	0.050	-	8.15	11.02	1843	1	1
1242	12	↓	17.67	2400	5.67	0.051	-	8.19	11.02	1857	1	1
SAMPLE @ 1245												

Constituents Sampled	Container	Number	Preservative
<u>BTE</u>	<u>VOP</u>	<u>3</u>	<u>HCL</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: SW corner / S Lot Well Locked at Arrival: Yes / No
 Condition of Well: 3/3 Good Well Locked at Departure: Yes / No
 Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. KC Metra Well ID MW-26

Page 1 of 1
Date 12/26/12

Project Name/Location _____ Weather overcast

Measuring Pt. Description blk 1.4c Screen Setting (ft-bmp) _____ Casing Diameter (in.) 4" Well Material PVC SS

Static Water Level (ft-bloc) 13.24 Total Depth (ft-bloc) 20' Water Column/ Gallons in Well _____ Initial PID Reading (ppm) 0.0

TOC Elevation _____ Pump Intake (ft-bloc) 16.5' Purge Method: LF Centrifugal Submersible Other _____ Sample Method Grab

Pump On/Off _____ Volumes Purged _____

Sample Time: Label MW-26 Replicate/ Code No. _____ Start 1300 End _____ Sampled by AK

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1245	0				7.38	267		1.76	13.1	108		
1248	3				7.34	267		1.8	13.0	105		
1251	6				7.35	267		1.79	13	103		
1254	9				7.38	267		1.76	13	100		
1257	12				7.39	267		1.76	13	99.8		
1300	15				7.40	267		1.76	13	99.6		

Constituents Sampled	Container	Number	Preservative
<u>BTE</u>	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____ Well Locked at Arrival: Yes / No

Condition of Well: _____ Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. _____ Well ID MW-7

Date 12-26-12

Project Name/Location KC METRO

Weather Partly

Measuring Pt. Description TCU Screen Setting (ft-bmp) - Casing Diameter (in.) 2"

Well Material PVC SS

Static Water Level (ft-bloc) 15.67 Total Depth (ft-bloc) - Water Column/ Gallons in Well -

Initial PID Reading (ppm) 0-0

TOC Elevation - Pump intake (ft-bloc) 14' Purge Method: Low Flow

Sample Method GRAB

Pump On/Off - Volumes Purged - Centrifugal Submersible Other

Sample Time: Label 1309 Replicate/ Code No. -
 Start _____
 End _____

Sampled by SLM

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1255	0	100	15.67	0	6.38	0.533	-	0.97	12.95	40.0	clear	X
1258	3	↓	-	100	6.39	0.535	-	0.99	12.89	11.7	1	1
1301	6	↓	-	1200	6.39	0.535	-	1.02	12.92	8.0	1	1
1304	9	↓	16.91	1800	6.39	0.539	-	0.97	12.93	0.0	1	1
SAMPLE @ 1309												

Constituents Sampled	Container	Number	Preservative
BTE	VOA	3	HCL

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: NE South Twp Well Locked at Arrival: Yes / No

Condition of Well: 313 in good / good work Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. _____

Well ID MLU-1

Date 12-26-12

Project Name/Location KC METRO

Weather Partly

Measuring Pt. Description TOC Screen Setting (ft-bmp) _____

Casing Diameter (in.) 2"

Well Material K PVC
SS

Static Water Level (ft-btoc) 15.31

Total Depth (ft-btoc) _____

Water Column/ Gallons in Well _____

Initial PID Reading (ppm) 0-0

TOC Elevation _____

Pump Intake (ft-btoc) 18'

Purge Method: LOW FLOW

Sample Method GRAB

Pump On/Off _____

Volumes Purged _____

Centrifugal _____
Submersible _____
Other _____

Sample Time: Label 1331
Start _____
End _____

Replicate/ Code No. _____

Sampled by SLM

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1315	0	2200	15.31	0	5.67	0.052	-	7.28	9.63	76.7	Clear	X
1318	3	2000	-	1200	5.61	0.052	-	2.88	9.67	108.8	1	1
1321	6	2000	-	1200	5.60	0.053	-	2.97	9.68	115.5	1	1
1324	9	2000	16.20	1800	5.50	0.053	-	2.81	9.69	123.9	1	1
SAMPLE @ 1331												

Constituents Sampled	Container	Number	Preservative
<u>BTE</u>	<u>VOA</u>	<u>3</u>	<u>7CL</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: NE FN BOUTY LOT Well Locked at Arrival: Yes / No

Condition of Well: SHARP / GOOD Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. KC Metro

Well ID MW-ZS

Date 12/26/12

Project Name/Location _____

Weather Overcast

Measuring Pt. Description blk line Screen Setting (ft-bmp) _____

Casing Diameter (in.) 4"

Well Material L PVC
SS

Static Water Level (ft-btoc) 13.76'

Total Depth (ft-btoc) 19.9'

Water Column/ Gallons in Well _____

Initial PID Reading (ppm) 0,0

TOC Elevation _____ Pump Intake (ft-btoc) 17'

Purge Method: LFP

Sample Method Grab

Pump On/Off _____ Volumes Purged _____

Centrifugal _____
Submersible per
Other _____

Sample Time: Label MW-ZS Replicate/ Code No. _____
Start 1345
End _____

Sampled by AK

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°F)	Redox (mV)	Appearance	
											Color	Odor
1327	0				7.64	337		0.30	13.7	102		
1330	3				7.65	336		0.24	13.7	96.4		
1336	9				7.66	338		0.2	13.7	91.8		
1342	15				7.65	339		0.15	13.7	87.8		
1345	15				7.65	338		0.12	13.7	85.5		

Constituents Sampled	Container	Number	Preservative
<u>BTE</u>	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____ Well Locked at Arrival: Yes / No

Condition of Well: _____ Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Project No. KC Metro Well ID MW-4 Page 1 of 1
 Date 12/26/12
 Project Name/Location _____ Weather 1-77W
 Measuring Pt. Description _____ Screen Setting (ft-bmp) _____ Casing Diameter (in.) _____ Well Material PVC SS
 Static Water Level (ft-bloc) 10.02 Total Depth (ft-bloc) 19.75 Water Column/ Gallons in Well 1 Initial PID Reading (ppm) 0.0
 TOC Elevation _____ Pump Intake (ft-bloc) 18' Purge Method: LFP Sample Method Grub
 Pump On/Off _____ Volumes Purged _____ Centrifugal Submersible Other _____
 Sample Time: Label MW-4 Replicate/ Code No. _____ Start 14:30 End _____
 Sampled by AK

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1408	0				7.56	101.0		2.32	12.2	76.5		
1411	3				7.58	110		1.73	12.3	97.0		
1414	6				7.47	134		2.25	11.3	70.0		
1420	12				7.46	129		2.18	11.3	97.7		
<p>Note: Well pumped dry; allow to stabilize to 18' before sampling</p>												

Constituents Sampled	Container	Number	Preservative
<u>BTE</u>	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____	Well Locked at Arrival: Yes / No
Condition of Well: _____	Well Locked at Departure: Yes / No
Well Completion: Flush Mount / Stick Up	Key Number To Well: _____

ARCADIS

Appendix B

Laboratory Analytical Reports

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 03, 2012

Project: 1001327

Submittal Date: 06/23/2012
Group Number: 1317894
PO Number: 0015094807
Release Number: HARMON
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-19 Grab Water	6699328
MW-19 Filtered Grab Water	6699329
MW-21 Grab Water	6699330
MW-21 Filtered Grab Water	6699331
MW-20 Grab Water	6699332
MW-20 Filtered Grab Water	6699333
MW-8A Grab Water	6699334
MW-8A Filtered Grab Water	6699335
MW-25 Grab Water	6699336
MW-25 Filtered Grab Water	6699337
MW-26 Grab Water	6699338
MW-26 Filtered Grab Water	6699339
DUP-1 Grab Water	6699340
MLU-1 Grab Water	6699341
MLU-1 Filtered Grab Water	6699342
MW-7 Grab Water	6699343
MW-7 Filtered Grab Water	6699344
AGI-2 Grab Water	6699345
AGI-2 Filtered Grab Water	6699346
MW-4 Grab Water	6699347
MW-4 Filtered Grab Water	6699348

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

ELECTRONIC Arcadis
COPY TO

Attn: Scott Zorn

Respectfully Submitted,



Jill M. Parker
Senior Specialist

(717) 556-7262

Sample Description: MW-19 Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699328
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 08:45 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNW19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 04:41	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-19 Filtered Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699329
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 08:45 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 05:12	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-21 Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699330
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 09:45 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNW21

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	1
08357	Chrysene	218-01-9	N.D.	0.011	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	1

Reporting limits were raised due to limited sample volume.

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 05:43	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-21 Filtered Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699331
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 09:45 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF21

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 06:14	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-20 Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699332
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 10:30 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNW20

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 06:45	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-20 Filtered Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699333
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 10:30 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF20

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	1
08357	Chrysene	218-01-9	N.D.	0.011	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	1
Reporting limits were raised due to limited sample volume.					

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 07:16	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-8A Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699334
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 11:50 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNW8A

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 07:47	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-8A Filtered Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699335
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 11:50 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF8A

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 08:18	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-25 Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699336
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 12:30 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNW25

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0099	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0099	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0099	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0099	1
08357	Chrysene	218-01-9	N.D.	0.0099	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0099	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0099	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 08:49	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-25 Filtered Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699337
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 12:30 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF25

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 09:20	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-26 Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699338
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 13:25 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNW26

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12178WAB026	06/27/2012 09:51	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12178WAB026	06/26/2012 14:30	David S Schrum	1

Sample Description: MW-26 Filtered Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699339
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 13:25 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF26

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	1
08357	Chrysene	218-01-9	N.D.	0.011	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	1

Reporting limits were raised due to limited sample volume.

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAH026	06/30/2012 09:45	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAH026	06/27/2012 22:30	Karen L Beyer	1

Sample Description: DUP-1 Grab Water
Facility# 1001327
 1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699340
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 by SM

Chevron

L4310

Submitted: 06/23/2012 09:30

6001 Bollinger Canyon Road

Reported: 07/03/2012 11:23

San Ramon CA 94583

NNWFD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAH026	06/30/2012 10:48	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAH026	06/27/2012 22:30	Karen L Beyer	1

Sample Description: MLU-1 Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699341
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 14:00 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNW-1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAH026	06/30/2012 11:20	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAH026	06/27/2012 22:30	Karen L Beyer	1

Sample Description: MLU-1 Filtered Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699342
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 14:00 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF-1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAH026	06/30/2012 11:51	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAH026	06/27/2012 22:30	Karen L Beyer	1

Sample Description: MW-7 Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699343
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 14:45 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNW07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	0.011	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:
 The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect.
 The reported data is from the initial analysis of the sample.

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAH026	06/30/2012 12:23	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAH026	06/27/2012 22:30	Karen L Beyer	1

Sample Description: MW-7 Filtered Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699344
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 14:45 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAI026	06/28/2012 13:11	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAI026	06/27/2012 22:30	Karen L Beyer	1

Sample Description: AGI-2 Grab Water
 Facility# 1001327
 1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699345
 LLI Group # 1317894
 Account # 11964

Project Name: 1001327

Collected: 06/21/2012 15:25 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNWA2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	0.011	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	0.012	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAI026	06/28/2012 13:43	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAI026	06/27/2012 22:30	Karen L Beyer	1

Sample Description: AGI-2 Filtered Grab Water
Facility# 1001327
 1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699346
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 15:25 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAI026	06/28/2012 14:14	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAI026	06/27/2012 22:30	Karen L Beyer	1

Sample Description: MW-4 Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699347
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 16:15 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNW04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	0.032	0.010	1
08357	Benzo(a)pyrene	50-32-8	0.037	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	0.039	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	0.018	0.010	1
08357	Chrysene	218-01-9	0.035	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.013	0.010	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAI026	06/28/2012 14:46	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAI026	06/27/2012 22:30	Karen L Beyer	1

Sample Description: MW-4 Filtered Grab Water
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6699348
LLI Group # 1317894
Account # 11964

Project Name: 1001327

Collected: 06/21/2012 16:15 by SM Chevron
 L4310
 Submitted: 06/23/2012 09:30 6001 Bollinger Canyon Road
 Reported: 07/03/2012 11:23 San Ramon CA 94583

NNF04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12179WAI026	06/28/2012 15:18	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12179WAI026	06/27/2012 22:30	Karen L Beyer	1

Quality Control Summary

Client Name: Chevron
Reported: 07/03/12 at 11:23 AM

Group Number: 1317894

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: 12178WAB026 Sample number(s): 6699328-6699338								
Benzo(a)anthracene	N.D.	0.010	ug/l	90	89	72-120	1	30
Benzo(a)pyrene	N.D.	0.010	ug/l	85	84	60-127	1	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	92	93	58-151	0	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	84	83	59-130	2	30
Chrysene	N.D.	0.010	ug/l	88	89	76-120	1	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	88	88	55-134	0	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	89	90	53-158	1	30
Batch number: 12179WAH026 Sample number(s): 6699339-6699343								
Benzo(a)anthracene	N.D.	0.010	ug/l	95	99	72-120	3	30
Benzo(a)pyrene	N.D.	0.010	ug/l	89	93	60-127	4	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	95	96	58-151	2	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	89	93	59-130	5	30
Chrysene	N.D.	0.010	ug/l	93	96	76-120	4	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	99	101	55-134	2	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	99	101	53-158	3	30
Batch number: 12179WAI026 Sample number(s): 6699344-6699348								
Benzo(a)anthracene	N.D.	0.010	ug/l	90	92	72-120	3	30
Benzo(a)pyrene	N.D.	0.010	ug/l	90	93	60-127	3	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	101	102	58-151	1	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	83	85	59-130	3	30
Chrysene	N.D.	0.010	ug/l	89	91	76-120	3	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	84	87	55-134	3	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	87	90	53-158	3	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: PAHs in waters by SIM
Batch number: 12178WAB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
6699328	88	81	87
6699329	88	81	88
6699330	88	82	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: 07/03/12 at 11:23 AM

Group Number: 1317894

Surrogate Quality Control

6699331	92	83	102
6699332	90	81	125
6699333	91	84	128
6699334	90	79	87
6699335	88	82	91
6699336	92	82	91
6699337	94	81	88
6699338	88	80	89
Blank	81	77	84
LCS	86	83	92
LCSD	89	83	92

Limits: 70-130 70-130 70-130

Analysis Name: PAHs in waters by SIM
Batch number: 12179WAH026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
6699339	99	88	103
6699340	98	84	99
6699341	100	88	101
6699342	96	83	97
6699343	107	86	72
Blank	92	90	95
LCS	96	90	95
LCSD	96	92	100

Limits: 70-130 70-130 70-130

Analysis Name: PAHs in waters by SIM
Batch number: 12179WAI026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
6699344	95	94	56*
6699345	87	89	114
6699346	97	93	114
6699347	91	87	89
6699348	88	92	89
Blank	88	90	90
LCS	88	91	87
LCSD	92	93	91

Limits: 70-130 70-130 70-130

*- 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.

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.

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

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

October 04, 2012

Project: 1001327

Submittal Date: 09/25/2012
Group Number: 1337822
PO Number: 0015094807
Release Number: HARMON
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-20 Grab Water	6800231
MW-20 Filtered Grab Water	6800232
MW-21 Grab Water	6800233
MW-21 Filtered Grab Water	6800234
MW-19 Grab Water	6800235
MW-19 Filtered Grab Water	6800236
MW-25 Grab Water	6800237
MW-25 Filtered Grab Water	6800238
MW-7 Grab Water	6800239
MW-7 Filtered Grab Water	6800240
AGI-2 Grab Water	6800241
AGI-2 Filtered Grab Water	6800242
Trip Blank Water	6800243

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

ELECTRONIC Arcadis
COPY TO

Attn: Scott Zorn

Respectfully Submitted,



Jill M. Parker
Senior Specialist

(717) 556-7262

Sample Description: MW-20 Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800231
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 11:30 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNS20

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	0.70	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.55	0.010	1
08357	Naphthalene	91-20-3	0.47	0.031	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	3.2	0.5	1
02102	Ethylbenzene	100-41-4	1.4	0.5	1
02102	Toluene	108-88-3	1.3	0.5	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 02:10	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
02102	Method 8021 Water Master	SW-846 8021B	1	12270A53A	09/28/2012 02:09	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	12270A53A	09/28/2012 02:09	Catherine J Schwarz	1

Sample Description: MW-20 Filtered Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800232
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 11:30 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNF20

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	1
08357	Chrysene	218-01-9	N.D.	0.011	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	1
08357	1-Methylnaphthalene	90-12-0	0.38	0.011	1
08357	2-Methylnaphthalene	91-57-6	0.27	0.011	1
08357	Naphthalene	91-20-3	0.24	0.033	1
Reporting limits were raised due to limited sample volume.					
Metals Dissolved SW-846 6020			ug/l	ug/l	
06025	Arsenic	7440-38-2	11.9	0.40	1
06035	Lead	7439-92-1	N.D.	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs, lead and arsenic.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 02:42	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
06025	Arsenic	SW-846 6020	1	122696050003A	09/27/2012 20:12	David K Beck	1
06035	Lead	SW-846 6020	1	122696050003A	09/27/2012 20:12	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122696050003	09/26/2012 08:52	Denise K Connors	1

Sample Description: MW-21 Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800233
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 12:25 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNS21

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	1
08357	Chrysene	218-01-9	N.D.	0.011	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	1
08357	1-Methylnaphthalene	90-12-0	56	0.21	20
08357	2-Methylnaphthalene	91-57-6	20	0.21	20
08357	Naphthalene	91-20-3	0.84	0.032	1

Reporting limits were raised due to limited sample volume.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

GC Volatiles	SW-846 8021B	ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	1
02102	Ethylbenzene	100-41-4	N.D.	1
02102	Toluene	108-88-3	0.7	1

Reporting limits were raised due to interference from the sample matrix.

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 03:14	Chad A Moline	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 04:18	Chad A Moline	20
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
02102	Method 8021 Water Master	SW-846 8021B	1	12270A53A	09/28/2012 02:36	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	12270A53A	09/28/2012 02:36	Catherine J Schwarz	1

Sample Description: MW-21 Filtered Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800234
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 12:25 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNF21

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	46	0.20	20
08357	2-Methylnaphthalene	91-57-6	16	0.20	20
08357	Naphthalene	91-20-3	0.64	0.031	1
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.					
Metals Dissolved SW-846 6020			ug/l	ug/l	
06025	Arsenic	7440-38-2	15.5	0.40	1
06035	Lead	7439-92-1	0.052	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs, lead and arsenic.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 03:46	Chad A Moline	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 04:49	Chad A Moline	20
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
06025	Arsenic	SW-846 6020	1	122696050003A	09/27/2012 20:15	David K Beck	1
06035	Lead	SW-846 6020	1	122696050003A	09/27/2012 20:15	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122696050003	09/26/2012 08:52	Denise K Connors	1

Sample Description: MW-19 Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800235
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 13:15 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNS19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0098	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0098	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0098	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0098	1
08357	Chrysene	218-01-9	N.D.	0.0098	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0098	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0098	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.0098	1
08357	2-Methylnaphthalene	91-57-6	0.012	0.0098	1
08357	Naphthalene	91-20-3	0.083	0.030	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

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 09:40	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
02102	Method 8021 Water Master	SW-846 8021B	1	12270A53A	09/28/2012 03:02	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	12270A53A	09/28/2012 03:02	Catherine J Schwarz	1

Sample Description: MW-19 Filtered Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800236
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 13:15 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNF19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	1
08357	Chrysene	218-01-9	N.D.	0.011	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	1
08357	2-Methylnaphthalene	91-57-6	0.012	0.011	1
08357	Naphthalene	91-20-3	0.075	0.032	1
Reporting limits were raised due to limited sample volume.					
Metals Dissolved SW-846 6020			ug/l	ug/l	
06025	Arsenic	7440-38-2	0.41	0.40	1
06035	Lead	7439-92-1	N.D.	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs, lead and arsenic.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 10:12	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
06025	Arsenic	SW-846 6020	1	122696050003A	09/27/2012 20:19	David K Beck	1
06035	Lead	SW-846 6020	1	122696050003A	09/27/2012 20:19	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122696050003	09/26/2012 08:52	Denise K Connors	1

Sample Description: MW-25 Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800237
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 14:35 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNS25

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.012	0.010	1
08357	Naphthalene	91-20-3	0.054	0.030	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

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 10:44	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
02102	Method 8021 Water Master	SW-846 8021B	1	12273A53A	09/30/2012 15:07	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12273A53A	09/30/2012 15:07	Marie D John	1

Sample Description: MW-25 Filtered Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800238
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 14:35 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNF25

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0097	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0097	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0097	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0097	1
08357	Chrysene	218-01-9	N.D.	0.0097	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0097	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0097	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.0097	1
08357	2-Methylnaphthalene	91-57-6	0.010	0.0097	1
08357	Naphthalene	91-20-3	0.032	0.029	1
Metals Dissolved SW-846 6020			ug/l	ug/l	
06025	Arsenic	7440-38-2	2.3	0.40	1
06035	Lead	7439-92-1	N.D.	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs, lead and arsenic.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 11:16	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
06025	Arsenic	SW-846 6020	1	122696050003A	09/27/2012 20:22	David K Beck	1
06035	Lead	SW-846 6020	1	122696050003A	09/27/2012 20:22	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122696050003	09/26/2012 08:52	Denise K Conners	1

Sample Description: MW-7 Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800239
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 15:25 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNS07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0099	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0099	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0099	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0099	1
08357	Chrysene	218-01-9	N.D.	0.0099	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0099	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0099	1
08357	1-Methylnaphthalene	90-12-0	110	0.99	100
08357	2-Methylnaphthalene	91-57-6	210	0.99	100
08357	Naphthalene	91-20-3	530	3.0	100
Reporting limits were raised due to interference from the sample matrix.					
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	46	0.5	1
02102	Ethylbenzene	100-41-4	120	0.5	1
02102	Toluene	108-88-3	6.9	0.5	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 11:48	Joseph M Gambler	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 22:05	Chad A Moline	100
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
02102	Method 8021 Water Master	SW-846 8021B	1	12271A94B	09/30/2012 11:56	Carrie E Miller	1
01146	GC VOA Water Prep	SW-846 5030B	1	12271A94B	09/30/2012 11:56	Carrie E Miller	1

Sample Description: MW-7 Filtered Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800240
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 15:25 by SM Chevron
 Submitted: 09/25/2012 09:30 L4310
 Reported: 10/04/2012 08:50 6001 Bollinger Canyon Road
 San Ramon CA 94583

NNF07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0098	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0098	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0098	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0098	1
08357	Chrysene	218-01-9	N.D.	0.0098	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0098	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0098	1
08357	1-Methylnaphthalene	90-12-0	96	0.97	100
08357	2-Methylnaphthalene	91-57-6	170	0.97	100
08357	Naphthalene	91-20-3	490	2.9	100
Metals Dissolved SW-846 6020			ug/l	ug/l	
06025	Arsenic	7440-38-2	6.1	0.40	1
06035	Lead	7439-92-1	1.6	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs, lead and arsenic.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 12:20	Joseph M Gambler	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 22:37	Chad A Moline	100
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
06025	Arsenic	SW-846 6020	1	122696050003A	09/27/2012 20:25	David K Beck	1
06035	Lead	SW-846 6020	1	122696050003A	09/27/2012 20:25	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122696050003	09/26/2012 08:52	Denise K Connors	1

Sample Description: AGI-2 Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800241
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 16:15 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNSA2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	0.011	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	5.1	0.010	1
08357	2-Methylnaphthalene	91-57-6	0.16	0.010	1
08357	Naphthalene	91-20-3	0.86	0.030	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	61	0.5	1
02102	Ethylbenzene	100-41-4	6.2	0.5	1
02102	Toluene	108-88-3	12	0.5	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 12:52	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
02102	Method 8021 Water Master	SW-846 8021B	1	12271A94B	09/29/2012 14:33	Carrie E Miller	1
01146	GC VOA Water Prep	SW-846 5030B	1	12271A94B	09/29/2012 14:33	Carrie E Miller	1

Sample Description: AGI-2 Filtered Grab Water
Facility# 1001327
1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800242
LLI Group # 1337822
Account # 11964

Project Name: 1001327

Collected: 09/20/2012 16:15 by SM Chevron
 L4310
 Submitted: 09/25/2012 09:30 6001 Bollinger Canyon Road
 Reported: 10/04/2012 08:50 San Ramon CA 94583

NNFA2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0099	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0099	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0099	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0099	1
08357	Chrysene	218-01-9	N.D.	0.0099	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0099	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0099	1
08357	1-Methylnaphthalene	90-12-0	4.1	0.0099	1
08357	2-Methylnaphthalene	91-57-6	0.14	0.0099	1
08357	Naphthalene	91-20-3	0.70	0.030	1

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Metals Dissolved SW-846 6020		ug/l	ug/l	
06025	Arsenic	7440-38-2	12.8	0.40
06035	Lead	7439-92-1	0.073	0.034

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs, lead and arsenic.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12270WAA026	09/27/2012 13:25	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12270WAA026	09/26/2012 09:50	Elizabeth A Sholder	1
06025	Arsenic	SW-846 6020	1	122696050003A	09/27/2012 20:28	David K Beck	1
06035	Lead	SW-846 6020	1	122696050003A	09/27/2012 20:28	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122696050003	09/26/2012 08:52	Denise K Conners	1

Sample Description: Trip Blank Water
 Facility# 1001327
 1602 N Northlake Place - Seattle, WA

LLI Sample # WW 6800243
 LLI Group # 1337822
 Account # 11964

Project Name: 1001327

Collected: 09/20/2012

Chevron

Submitted: 09/25/2012 09:30

L4310

Reported: 10/04/2012 08:50

6001 Bollinger Canyon Road
 San Ramon CA 94583

NNSTB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
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

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
02102	Method 8021 Water Master	SW-846 8021B	1	12271A94A	09/28/2012 17:46	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12271A94A	09/28/2012 17:46	Marie D John	1

Quality Control Summary

Client Name: Chevron
Reported: 10/04/12 at 08:50 AM

Group Number: 1337822

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: 12270WAA026	Sample number(s): 6800231-6800242							
Benzo(a)anthracene	N.D.	0.010	ug/l	79	90	63-124	13	30
Benzo(a)pyrene	N.D.	0.010	ug/l	82	92	60-127	11	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	85	98	58-151	14	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	84	93	59-130	10	30
Chrysene	N.D.	0.010	ug/l	78	87	65-124	12	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	75	84	55-134	10	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	73	81	66-122	10	30
1-Methylnaphthalene	N.D.	0.010	ug/l	82	94	71-120	13	30
2-Methylnaphthalene	N.D.	0.010	ug/l	87	98	61-127	12	30
Naphthalene	N.D.	0.030	ug/l	81	91	72-120	12	30
Batch number: 12270A53A	Sample number(s): 6800231,6800233,6800235							
Benzene	N.D.	0.2	ug/l	106		80-120		
Ethylbenzene	N.D.	0.2	ug/l	109		80-120		
Toluene	N.D.	0.2	ug/l	109		80-120		
Batch number: 12271A94A	Sample number(s): 6800243							
Benzene	N.D.	0.5	ug/l	101		80-120		
Ethylbenzene	N.D.	0.5	ug/l	104		80-120		
Toluene	N.D.	0.5	ug/l	106		80-120		
Batch number: 12271A94B	Sample number(s): 6800239,6800241							
Benzene	N.D.	0.5	ug/l	101		80-120		
Ethylbenzene	N.D.	0.5	ug/l	104		80-120		
Toluene	N.D.	0.5	ug/l	106		80-120		
Batch number: 12273A53A	Sample number(s): 6800237							
Benzene	N.D.	0.5	ug/l	107		80-120		
Ethylbenzene	N.D.	0.5	ug/l	111		80-120		
Toluene	N.D.	0.5	ug/l	110		80-120		
Batch number: 122696050003A	Sample number(s): 6800232,6800234,6800236,6800238,6800240,6800242							
Arsenic	N.D.	0.40	ug/l	94		80-120		
Lead	N.D.	0.034	ug/l	93		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

MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup RPD
----	-----	--------	-----	-----	-----	-----	---------

*- 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: 1337822

Reported: 10/04/12 at 08:50 AM

<u>Analysis Name</u>	<u>%REC</u>	<u>%REC</u>	<u>Limits</u>	<u>RPD</u>	<u>MAX</u>	<u>Conc</u>	<u>Conc</u>	<u>RPD</u>	<u>Max</u>
Batch number: 12270A53A	Sample number(s): 6800231,6800233,6800235 UNSPK: P800385								
Benzene	109	111	80-130	2	30				
Ethylbenzene	116	114	80-133	2	30				
Toluene	115	114	80-133	1	30				
Batch number: 12271A94A	Sample number(s): 6800243 UNSPK: P801583								
Benzene	97	100	80-130	2	30				
Ethylbenzene	61 (2)	61 (2)	80-133	0	30				
Toluene	103	106	80-133	2	30				
Batch number: 12271A94B	Sample number(s): 6800239,6800241 UNSPK: P801583								
Benzene	97	100	80-130	2	30				
Ethylbenzene	61 (2)	61 (2)	80-133	0	30				
Toluene	103	106	80-133	2	30				
Batch number: 12273A53A	Sample number(s): 6800237 UNSPK: P803252								
Benzene	111	113	80-130	2	30				
Ethylbenzene	114	116	80-133	1	30				
Toluene	115	117	80-133	1	30				
Batch number: 122696050003A	Sample number(s): 6800232,6800234,6800236,6800238,6800240,6800242 UNSPK: P798907								
	BKG: P798907								
Arsenic	96	107	75-125	9	20	1.1	0.76	40* (1)	20
Lead	97	97	83-120	0	20	0.61	0.54	11 (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: PAHs in waters by SIM

Batch number: 12270WAA026

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

6800231	95	103	94
6800232	94	103	93
6800233	157*	105	87
6800234	128*	95	87
6800235	95	103	93
6800236	99	106	96
6800237	82	93	84
6800238	95	107	95
6800239	92	100	139*
6800240	88	94	119
6800241	79	86	116
6800242	91	100	133*
Blank	97	102	89
LCS	91	97	83
LCSD	101	108	95
<hr/>			
Limits:	64-120	44-127	61-120

Analysis Name: Method 8021 Water Master

Batch number: 12270A53A

*- 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: 10/04/12 at 08:50 AM

Group Number: 1337822

Surrogate Quality Control

Trifluorotoluene-P

6800231	95
6800233	83
6800235	87
Blank	88
LCS	88
MS	85
MSD	88

Limits: 51-120

Analysis Name: Method 8021 Water Master
Batch number: 12271A94A
Trifluorotoluene-P

6800243	87
Blank	86
LCS	86
MS	101
MSD	103

Limits: 51-120

Analysis Name: Method 8021 Water Master
Batch number: 12271A94B
Trifluorotoluene-P

6800239	135*
6800241	89
Blank	86
LCS	86
MS	101
MSD	103

Limits: 51-120

Analysis Name: Method 8021 Water Master
Batch number: 12273A53A
Trifluorotoluene-P

6800237	89
Blank	87
LCS	87
MS	94
MSD	93

Limits: 51-120

*- Outside of specification

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

Chevron Northwest Region Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 119604

Group # 1337822 For Lancaster Laboratories use only
Sample # 6800231-43

Instructions on reverse side correspond with circled numbers.

1 Client Information			4 Matrix			5 Analyses Requested										6 Remarks		
Facility # <u>100-1327</u> WBS Site Address <u>Northlake</u> Chevron PM <u>Marlea Harman</u> Lead Consultant <u>ARCADIS</u> Consultant/Office <u>2300 Eastlake Ave E Seattle WA 98102</u> Consultant Project Mgr. <u>Scott Zorn</u> Consultant Phone # <u>206-726-4719</u> Sampler <u>Sam Miles</u>			<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air			Total Number of Containers BTEX + MTBE <input checked="" type="checkbox"/> 8260 <input checked="" type="checkbox"/> Naphthalene 8260 full scan <input checked="" type="checkbox"/> BTE Volatiles C P A H S MARCHOX C P A H S (Field Filtered) NIAEPH-DX <input type="checkbox"/> Silica Gel Cleanup <input checked="" type="checkbox"/> Lead <input type="checkbox"/> Total <input type="checkbox"/> Diss <input checked="" type="checkbox"/> Naphthalene Total Lead + Arsenic Dissolved Lead + Arsenic										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		
2 Sample Identification		3 Collected		Grab	Composite													
		Date	Time															
<u>MW-20</u>		<u>9-20-12</u>	<u>1130</u>	<u>G</u>														Samples entered for analyses on attached quote. gmp 9/26/12
<u>MW-21</u>			<u>1225</u>	<u>G</u>														
<u>MW-19</u>			<u>1315</u>	<u>G</u>														
<u>MW-25</u>			<u>1735</u>	<u>G</u>														
<u>MW-7</u>			<u>1525</u>	<u>G</u>														
<u>AGI-2</u>			<u>1615</u>	<u>G</u>														
<u>Trip Blank</u>																		
7 Turnaround Time Requested (TAT) (please circle) <input checked="" type="radio"/> Standard 5 day 4 day 72 hour 48 hour 24 hour						Relinquished by <u>Sam Miles</u> Date <u>9-24-12</u> Time <u>1100</u>		Received by _____ Date _____ Time _____		9								
						8 Data Package Options (please circle if required) Type I - Full Type VI (Raw Data)						Relinquished by Commercial Carrier: UPS _____ FedEx <input checked="" type="checkbox"/> Other _____		Received by _____ Date <u>9/25/12</u> Time <u>930</u>		Temperature Upon Receipt <u>1.2-2.8 °C</u> Custody Seals Intact? <input checked="" type="radio"/> Yes <input type="radio"/> No		



Lancaster
Laboratories

Reference Number: 208114

Mr. Alan Kahal
ARCADIS U.S., Inc.

Date Effective: 8/16/12

Account Number: 11964

Chevron site 1001327 (Seattle, WA)

Number of Analyses	Catalog Number	Analysis Name	Unit Cost \$	Total Cost per Event
Groundwater				
12	8357	cPAH's/Naphthalenes by 8270C SIM	\$135.23	\$1,622.76
12	8357	cPAH's by 8270C SIM (field-filtered)	\$135.23	\$1,622.76
12	6035	Dissolved Lead 6020 (field-filtered)	\$8.19	\$98.28
12	6025	Dissolved Arsenic 6020 (field-filtered)	\$11.65	\$139.80
12	2102	BTE 8021	\$14.74	\$176.88
Trip Blank				
1	2102	BTE 8021	\$14.74	\$14.74
Analytical Total				\$3,675.22

All rush must be approved by the lab at least 24 hours PRIOR to sample submission. Rush surcharges are as follows:

6-day to 8-day TAT: 8%
 3-day to 5-day TAT: 35%
 2-day TAT: 60%
 1-day TAT: 100%

We reserve the right to amend our charges if any sample requires additional preparation work in order to successfully perform the test or meet special technical specifications.

A valid purchase order is required with all sample submissions.

Unless otherwise agreed in writing signed by Lancaster Laboratories, Inc., services are expressly limited to the terms and conditions provided with this quotation.

Signing this quotation, and/or submitting samples for testing services offered in the quotation, constitutes acceptance of the terms and conditions stated herein.

Accepted by: _____ Date: _____

IF YOU HAVE ANY QUESTIONS, PLEASE CALL.

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.

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

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

October 05, 2012

Project: 1001327

Submittal Date: 09/28/2012
Group Number: 1338678
PO Number: 0015094807
Release Number: HARMON
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
MW-8A Groundwater	6805231
MW-8A Filtered Groundwater	6805232
MW-26 Groundwater	6805233
MW-26 Filtered Groundwater	6805234
MW-4 Groundwater	6805235
MW-4 Filtered Groundwater	6805236
MLU-1 Groundwater	6805237
MLU-1 Filtered Groundwater	6805238
DUP-1 Groundwater	6805239
DUP-1 Filtered Groundwater	6805240
MLU-1 Groundwater	6805241
MLU-1 Filtered Groundwater	6805242
MW-4 Groundwater	6805243
MW-4 Filtered Groundwater	6805244
MW-8A Groundwater	6805245
MW-8A Filtered Groundwater	6805246
MW-26 Groundwater	6805247
MW-26 Filtered Groundwater	6805248
DUP-1 Groundwater	6805249
DUP-1 Filtered Groundwater	6805250
Trip Blank Water	6805251

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

ELECTRONIC Arcadis
COPY TO

Attn: Scott Zorn

Respectfully Submitted,



Jill M. Parker
Senior Specialist

(717) 556-7262

Sample Description: MW-8A Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805231
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/21/2012 11:00 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles			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	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	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
02102	Method 8021 Water Master	SW-846 8021B	1	12275C53A	10/02/2012 06:29	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12275C53A	10/02/2012 06:29	Marie D John	1

Sample Description: MW-8A Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805232
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/21/2012 11:00 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved			SW-846 6020	ug/l	
06025	Arsenic	7440-38-2	4.9	0.40	1
06035	Lead	7439-92-1	0.13	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved lead and arsenic.
 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
06025	Arsenic	SW-846 6020	1	122766050001A	10/05/2012 08:32	Choon Y Tian	1
06035	Lead	SW-846 6020	1	122766050001A	10/05/2012 08:32	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122766050001	10/03/2012 11:32	James L Mertz	1

Sample Description: MW-26 Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805233
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/21/2012 12:30 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles			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	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	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
02102	Method 8021 Water Master	SW-846 8021B	1	12275C53A	10/02/2012 06:56	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12275C53A	10/02/2012 06:56	Marie D John	1

Sample Description: MW-26 Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805234
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/21/2012 12:30 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved			SW-846 6020	ug/l	
06025	Arsenic	7440-38-2	0.49	0.40	1
06035	Lead	7439-92-1	0.10	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved lead and arsenic.
 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
06025	Arsenic	SW-846 6020	1	122766050001A	10/05/2012 08:34	Choon Y Tian	1
06035	Lead	SW-846 6020	1	122766050001A	10/05/2012 08:34	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122766050001	10/03/2012 11:32	James L Mertz	1

Sample Description: MW-4 Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805235
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/21/2012 13:50 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles			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	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	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
02102	Method 8021 Water Master	SW-846 8021B	1	12275C53A	10/02/2012 07:23	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12275C53A	10/02/2012 07:23	Marie D John	1

Sample Description: MW-4 Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805236
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/21/2012 13:50 by RL Chevron
 L4310
 Submitted: 09/28/2012 09:40 6001 Bollinger Canyon Road
 Reported: 10/05/2012 11:17 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved			SW-846 6020	ug/l	
06025	Arsenic	7440-38-2	N.D.	0.40	1
06035	Lead	7439-92-1	N.D.	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved lead and arsenic.
 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
06025	Arsenic	SW-846 6020	1	122766050001A	10/05/2012 08:35	Choon Y Tian	1
06035	Lead	SW-846 6020	1	122766050001A	10/05/2012 08:35	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122766050001	10/03/2012 11:32	James L Mertz	1

Sample Description: MLU-1 Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805237
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/21/2012 15:10 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles			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	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	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
02102	Method 8021 Water Master	SW-846 8021B	1	12275C53A	10/02/2012 07:49	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12275C53A	10/02/2012 07:49	Marie D John	1

Sample Description: MLU-1 Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805238
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/21/2012 15:10 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved			SW-846 6020	ug/l	
06025	Arsenic	7440-38-2	N.D.	0.40	1
06035	Lead	7439-92-1	0.041	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved lead and arsenic.
 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
06025	Arsenic	SW-846 6020	1	122766050001A	10/05/2012 08:37	Choon Y Tian	1
06035	Lead	SW-846 6020	1	122766050001A	10/05/2012 08:37	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122766050001	10/03/2012 11:32	James L Mertz	1

Sample Description: DUP-1 Groundwater
 Facility# 1001327
 1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805239
 LLI Group # 1338678
 Account # 11964

Project Name: 1001327

Collected: 09/21/2012 by RL

Chevron

L4310

Submitted: 09/28/2012 09:40

6001 Bollinger Canyon Road

Reported: 10/05/2012 11:17

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
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	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	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
02102	Method 8021 Water Master	SW-846 8021B	1	12275C53A	10/02/2012 08:16	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12275C53A	10/02/2012 08:16	Marie D John	1

Sample Description: DUP-1 Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805240
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/21/2012 by RL

Chevron

L4310

Submitted: 09/28/2012 09:40

6001 Bollinger Canyon Road

Reported: 10/05/2012 11:17

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved			SW-846 6020	ug/l	
06025	Arsenic	7440-38-2	0.53	0.40	1
06035	Lead	7439-92-1	N.D.	0.034	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved lead and arsenic.

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
06025	Arsenic	SW-846 6020	1	122766050001A	10/05/2012 08:39	Choon Y Tian	1
06035	Lead	SW-846 6020	1	122766050001A	10/05/2012 08:39	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	122766050001	10/03/2012 11:32	James L Mertz	1

Sample Description: MLU-1 Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805241
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 09:05 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

NNW01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.031	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 04:27	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: MLU-1 Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805242
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 09:05 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

NNF01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.031	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 04:58	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: MW-4 Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805243
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 09:45 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

NNW-4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0099	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0099	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0099	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0099	1
08357	Chrysene	218-01-9	N.D.	0.0099	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0099	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0099	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.0099	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.0099	1
08357	Naphthalene	91-20-3	N.D.	0.030	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 05:30	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: MW-4 Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805244
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 09:45 by RL Chevron
 L4310
 Submitted: 09/28/2012 09:40 6001 Bollinger Canyon Road
 Reported: 10/05/2012 11:17 San Ramon CA 94583

NNF04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0099	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0099	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0099	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0099	1
08357	Chrysene	218-01-9	N.D.	0.0099	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0099	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0099	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.0099	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.0099	1
08357	Naphthalene	91-20-3	N.D.	0.030	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 06:01	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: MW-8A Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805245
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 10:30 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

NNW8A

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 06:32	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: MW-8A Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805246
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 10:30 by RL Chevron
 L4310
 Submitted: 09/28/2012 09:40 6001 Bollinger Canyon Road
 Reported: 10/05/2012 11:17 San Ramon CA 94583

NNF8A

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.031	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 07:03	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: MW-26 Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805247
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 11:45 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

NNW26

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 07:34	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: MW-26 Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805248
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 11:45 by RL Chevron
 Submitted: 09/28/2012 09:40 L4310
 Reported: 10/05/2012 11:17 6001 Bollinger Canyon Road
 San Ramon CA 94583

NNF26

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 08:06	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: DUP-1 Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805249
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 by RL

Chevron

L4310

Submitted: 09/28/2012 09:40

6001 Bollinger Canyon Road

Reported: 10/05/2012 11:17

San Ramon CA 94583

NNWFD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1

General Sample Comments

State of Washington Lab Certification No. C259
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 08:37	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: DUP-1 Filtered Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805250
LLI Group # 1338678
Account # 11964

Project Name: 1001327

Collected: 09/26/2012 by RL

Chevron

L4310

Submitted: 09/28/2012 09:40

6001 Bollinger Canyon Road

Reported: 10/05/2012 11:17

San Ramon CA 94583

NNFFD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0098	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0098	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0098	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0098	1
08357	Chrysene	218-01-9	N.D.	0.0098	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0098	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0098	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.0098	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.0098	1
08357	Naphthalene	91-20-3	N.D.	0.029	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved cPAHs.
 Carcinogenic PAHs have been reported for this sample

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	12273WAH026	10/02/2012 09:08	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	12273WAH026	10/01/2012 10:00	Cynthia J Salvatori	1

Sample Description: Trip Blank Water
 Facility# 1001327
 1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6805251
 LLI Group # 1338678
 Account # 11964

Project Name: 1001327

Collected: 09/21/2012

Chevron

Submitted: 09/28/2012 09:40

L4310

Reported: 10/05/2012 11:17

6001 Bollinger Canyon Road
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles			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	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	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
02102	Method 8021 Water Master	SW-846 8021B	1	12275C53A	10/02/2012 01:35	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12275C53A	10/02/2012 01:35	Marie D John	1

Quality Control Summary

Client Name: Chevron
Reported: 10/05/12 at 11:17 AM

Group Number: 1338678

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: 12273WAH026	Sample number(s): 6805241-6805250							
Benzo(a)anthracene	N.D.	0.010	ug/l	90	93	63-124	4	30
Benzo(a)pyrene	N.D.	0.010	ug/l	91	95	60-127	4	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	92	96	58-151	4	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	94	97	59-130	4	30
Chrysene	N.D.	0.010	ug/l	89	92	65-124	3	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	96	99	55-134	3	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	94	98	66-122	4	30
1-Methylnaphthalene	N.D.	0.010	ug/l	83	86	71-120	3	30
2-Methylnaphthalene	N.D.	0.010	ug/l	86	90	61-127	4	30
Naphthalene	N.D.	0.030	ug/l	100	103	72-120	2	30
Batch number: 12275C53A	Sample number(s): 6805231,6805233,6805235,6805237,6805239,6805251							
Benzene	N.D.	0.5	ug/l	106	101	80-120	5	30
Ethylbenzene	N.D.	0.5	ug/l	110	105	80-120	5	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	97	100	79-120	3	30
Toluene	N.D.	0.5	ug/l	110	104	80-120	5	30
Total Xylenes	N.D.	1.5	ug/l	112	107	80-120	5	30
Batch number: 122766050001A	Sample number(s): 6805232,6805234,6805236,6805238,6805240							
Arsenic	N.D.	0.40	ug/l	104		80-120		
Lead	N.D.	0.034	ug/l	107		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

<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: 122766050001A	Sample number(s): 6805232,6805234,6805236,6805238,6805240 UNSPK: P804222 BKG: P804222								
Arsenic	106	108	75-125	2	20	0.41	N.D.	200* (1)	20
Lead	107	107	83-120	1	20	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

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

*- 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: 10/05/12 at 11:17 AM

Group Number: 1338678

Surrogate Quality Control

Analysis Name: PAHs in waters by SIM

Batch number: 12273WAH026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
6805241	93	101	91
6805242	90	100	86
6805243	86	92	84
6805244	90	99	88
6805245	83	91	81
6805246	91	103	89
6805247	87	91	88
6805248	92	99	82
6805249	92	97	91
6805250	84	90	78
Blank	92	100	91
LCS	88	97	86
LCSD	91	100	88

Limits: 64-120 44-127 61-120

Analysis Name: Method 8021 Water Master

Batch number: 12275C53A

Trifluorotoluene-P

6805231	88
6805233	87
6805235	89
6805237	89
6805239	89
6805251	88
Blank	88
LCS	88
LCSD	88

Limits: 51-120

*- Outside of specification

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

Chevron Northwest Region Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 11964

For Lancaster Laboratories use only
Group # 1338678

Sample # 6805231-51

Instructions on reverse side correspond with circled numbers.

1 Client Information			4 Matrix			5 Analyses Requested										6 Remarks				
Facility # <u>1001327</u> WBS Site Address <u>1602 North Northlake Way Seattle WA</u> Chevron PM <u>MARLEA HARMON</u> Lead Consultant Consultant/Office <u>ARCADIS - SEATTLE</u> Consultant Project Mgr. <u>Scott Zym</u> Consultant Phone # <u>206.726.4709</u> Sampler <u>ROSS LINDQUIST</u>			<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil			Total Number of Containers BTEX + MTBE 8021 <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan Oxygenates NWTPH GX NWTPH DX <input type="checkbox"/> Silica Gel Cleanup <input type="checkbox"/> Lead Total <input type="checkbox"/> Diss. <input checked="" type="checkbox"/> Method WAVPH <input type="checkbox"/> WAEPH <input type="checkbox"/> Diss Arsenic C-PAHs/Naphs by SIM Diss - C-PAHs/Naphs by SIM										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				
2 Sample Identification		3 Collected		Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8021	8260	NWTPH GX	NWTPH DX	Lead	WAVPH	Diss Arsenic	C-PAHs/Naphs by SIM	Diss - C-PAHs/Naphs by SIM	9	
		Date	Time																Date	Time
MW-8A		9-21-12	1100						4	X				X			X	X		
MW-2G			1230						4	X				X			X	X		
MW-4			1350						4	X				X			X	X		
MLU-1			1510						4	X				X			X	X		
DUP-1			—						4	X				X			X	X		
MW-1		9-26-12	905						4	X				X			X	X		
MW-4			945						4	X				X			X	X		
MW-8A			1030						4	X				X			X	X		
MW-2G			1145						4	X				X			X	X		
DUP-1			—						4	X				X			X	X		
7 Turnaround Time Requested (TAT) (please circle) <input checked="" type="radio"/> Standard 5 day 4 day 72 hour 48 hour 24 hour			Relinquished by <u>Scott Zym</u> Relinquished by _____			Date <u>9.27.12</u> Time <u>1320</u>		Received by _____ Received by _____		Date _____ Time _____		Date _____ Time _____								
8 Data Package Options (please circle if required) <input checked="" type="radio"/> Type I - Full Type VI (Raw Data)			Relinquished by Commercial Carrier: UPS _____ FedEx <input checked="" type="checkbox"/> Other _____			Temperature Upon Receipt <u>3.2-5.7°C</u>		Received by <u>[Signature]</u> Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Date <u>9/26/12</u> Time <u>940</u>		Date _____ Time _____								

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.

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

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

January 10, 2013

Project: 1001327

Submittal Date: 12/28/2012

Group Number: 1358888

PO Number: 0015094807

Release Number: HARMON

State of Sample Origin: WA

Client Sample Description

MW-20 Grab Groundwater
MW-21 Grab Groundwater
MW-19 Grab Groundwater
MW-8A Grab Groundwater
AGI-2 Grab Groundwater
MW-26 Grab Groundwater
MW-7 Grab Groundwater
MW-25 Grab Groundwater
MLU-1 Grab Groundwater
MW-4 Grab Groundwater
DUP-1 Grab Groundwater
TRIP BLANK Water

Lancaster Labs (LLI)

6907638
6907639
6907640
6907641
6907642
6907643
6907644
6907645
6907646
6907647
6907648
6907649

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

ELECTRONIC Arcadis
COPY TO

Attn: Scott Zorn

Respectfully Submitted,



Jill M. Parker
Senior Specialist

(717) 556-7262

Sample Description: MW-20 Grab Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907638
LLI Group # 1358888
Account # 11964

Project Name: 1001327

Collected: 12/26/2012 11:20 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles SW-846 8021B					
02102	Benzene	71-43-2	N.D.	0.5 ug/l	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 15:36	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 15:36	Marie D John	1

Sample Description: MW-21 Grab Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907639
LLI Group # 1358888
Account # 11964

Project Name: 1001327

Collected: 12/26/2012 11:25 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles			ug/l	ug/l	
02102	Benzene	71-43-2	2.7	0.5	1
02102	Ethylbenzene	100-41-4	0.6	0.5	1
02102	Toluene	108-88-3	0.6	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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 16:03	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 16:03	Marie D John	1

Sample Description: MW-19 Grab Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907640
LLI Group # 1358888
Account # 11964

Project Name: 1001327

Collected: 12/26/2012 12:15 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
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

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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 16:29	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 16:29	Marie D John	1

Sample Description: MW-8A Grab Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907641
LLI Group # 1358888
Account # 11964

Project Name: 1001327

Collected: 12/26/2012 12:45 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
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

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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 16:56	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 16:56	Marie D John	1

Sample Description: AGI-2 Grab Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907642
LLI Group # 1358888
Account # 11964

Project Name: 1001327

Collected: 12/26/2012 12:05 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles			ug/l	ug/l	
02102	Benzene	71-43-2	11	0.5	1
02102	Ethylbenzene	100-41-4	1.4	0.5	1
02102	Toluene	108-88-3	3.6	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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 17:23	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 17:23	Marie D John	1

Sample Description: MW-26 Grab Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907643
LLI Group # 1358888
Account # 11964

Project Name: 1001327

Collected: 12/26/2012 13:00 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
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

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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 17:50	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 17:50	Marie D John	1

Sample Description: MW-7 Grab Groundwater
 Facility# 1001327
 1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907644
 LLI Group # 1358888
 Account # 11964

Project Name: 1001327

Collected: 12/26/2012 13:09 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
		SW-846 8021B	ug/l	ug/l	
02102	Benzene	71-43-2	34	0.5	1
02102	Ethylbenzene	100-41-4	240	0.5	1
02102	Toluene	108-88-3	6.0	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
02102	Method 8021 Water Master	SW-846 8021B	1	13007B53A	01/10/2013 05:44	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	13007B53A	01/10/2013 05:44	Marie D John	1

Sample Description: MW-25 Grab Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907645
LLI Group # 1358888
Account # 11964

Project Name: 1001327

Collected: 12/26/2012 13:45 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
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

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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 18:17	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 18:17	Marie D John	1

Sample Description: MLU-1 Grab Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907646
LLI Group # 1358888
Account # 11964

Project Name: 1001327

Collected: 12/26/2012 13:31 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
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

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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 19:10	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 19:10	Marie D John	1

Sample Description: MW-4 Grab Groundwater
Facility# 1001327
1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907647
LLI Group # 1358888
Account # 11964

Project Name: 1001327

Collected: 12/26/2012 14:30 by SM Chevron
 L4310
 Submitted: 12/28/2012 09:30 6001 Bollinger Canyon Road
 Reported: 01/10/2013 12:47 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
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

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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 19:37	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 19:37	Marie D John	1

Sample Description: DUP-1 Grab Groundwater
 Facility# 1001327
 1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907648
 LLI Group # 1358888
 Account # 11964

Project Name: 1001327

Collected: 12/26/2012 by SM

Chevron

L4310

Submitted: 12/28/2012 09:30

6001 Bollinger Canyon Road

Reported: 01/10/2013 12:47

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
		SW-846 8021B	ug/l	ug/l	
02102	Benzene	71-43-2	2.7	0.5	1
02102	Ethylbenzene	100-41-4	0.5	0.5	1
02102	Toluene	108-88-3	0.6	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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 20:04	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 20:04	Marie D John	1

Sample Description: TRIP BLANK Water
 Facility# 1001327
 1602 North Northlake Way - Seattle, WA

LLI Sample # WW 6907649
 LLI Group # 1358888
 Account # 11964

Project Name: 1001327

Collected: 12/26/2012

Chevron

Submitted: 12/28/2012 09:30

L4310

Reported: 01/10/2013 12:47

6001 Bollinger Canyon Road
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
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

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
02102	Method 8021 Water Master	SW-846 8021B	1	12366A53A	01/03/2013 14:15	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12366A53A	01/03/2013 14:15	Marie D John	1

Quality Control Summary

Client Name: Chevron Group Number: 1358888
Reported: 01/10/13 at 12:47 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: 12366A53A	Sample number(s): 6907638-6907643, 6907645-6907649							
Benzene	N.D.	0.5	ug/l	103		80-120		
Ethylbenzene	N.D.	0.5	ug/l	109		80-120		
Toluene	N.D.	0.5	ug/l	108		80-120		
Batch number: 13007B53A	Sample number(s): 6907644							
Benzene	N.D.	0.5	ug/l	109	104	80-120	4	30
Ethylbenzene	N.D.	0.5	ug/l	111	106	80-120	4	30
Toluene	N.D.	0.5	ug/l	110	105	80-120	4	30

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: 12366A53A	Sample number(s): 6907638-6907643, 6907645-6907649 UNSPK: P907148								
Benzene	84	102	80-130	7	30				
Ethylbenzene	107	103	80-133	1	30				
Toluene	85	99	80-133	4	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: Method 8021 Water Master
Batch number: 12366A53A
Trifluorotoluene-P

6907638	84
6907639	80
6907640	85
6907641	85
6907642	87
6907643	85
6907645	85

*- 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: 01/10/13 at 12:47 PM

Group Number: 1358888

Surrogate Quality Control

6907646	84
6907647	84
6907648	79
6907649	84
Blank	84
LCS	84
MS	81
MSD	84

Limits: 51-120

Analysis Name: Method 8021 Water Master
Batch number: 13007B53A
Trifluorotoluene-P

6907644	122*
Blank	84
LCS	85
LCSD	85

Limits: 51-120

*- Outside of specification

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

Chevron Northwest Region Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 11964 Group # 1358888 For Lancaster Laboratories use only Sample # 6907638-49
Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks															
Facility # <u>100-1327</u>		WBS		Sediment <input type="checkbox"/>		Ground <input checked="" type="checkbox"/>		Surface <input type="checkbox"/>		<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> 8260 Naphth <input type="checkbox"/> 8260 8260 <input type="checkbox"/> 8260 full scan <input type="checkbox"/> Oxygenates <input type="checkbox"/> NWTPH GX <input type="checkbox"/> NWTPH DX <input type="checkbox"/> Silica Gel Cleanup <input type="checkbox"/> Lead <input type="checkbox"/> Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method <input type="checkbox"/> WAVPH <input type="checkbox"/> WAEPH </div> <div style="width: 45%;"> <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 </div> </div>												SCR #: _____													
Site Address <u>1602 North Northlake Way, Seattle, WA</u>				Potable <input type="checkbox"/>		Water <input type="checkbox"/>		Oil <input type="checkbox"/>																											
Chevron PM <u>Mavea Harmon</u>		Lead Consultant <u>REBELLA ANDRESEN</u>		Composite <input type="checkbox"/>		Soil <input type="checkbox"/>		Air <input type="checkbox"/>																											
Consultant/Office <u>ARLADIS / SEATTLE</u>				Grab <input type="checkbox"/>		Water <input type="checkbox"/>		Air <input type="checkbox"/>																											
Consultant Project Mgr. <u>Scott Zorn</u>				Total Number of Containers		8021 <input checked="" type="checkbox"/>		8021 <input checked="" type="checkbox"/>																											
Consultant Phone # <u>206-726-7703</u>				8260 + MTBE		8260 <input checked="" type="checkbox"/>		8260 <input checked="" type="checkbox"/>																											
Sampler <u>SEAMAS MCGUIRE / AL KHALIL</u>				8260 full scan		8260 <input type="checkbox"/>		8260 <input type="checkbox"/>																											
2 Sample Identification		3 Collected		Grab	Composite	Soil	Water	Oil	Total Number of Containers	5 Analyses Requested												6 Remarks													
		Date	Time							8260 + MTBE	8260	8260	Oxygenates	NWTPH GX	NWTPH DX	Silica Gel Cleanup	Lead	Total	Diss.	Method	WAVPH		WAEPH												
<u>MW-20</u>		<u>12-26</u>	<u>1120</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<u>GROUND</u>		<u>3</u>	<input checked="" type="checkbox"/>													*PLEASE DO NOT ANALYZE FOR XYLENES.												
<u>MW-21</u>		<u>12-26</u>	<u>1125</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>MW-19</u>		<u>12-26</u>	<u>1215</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>MW-8A</u>		<u>12-26</u>	<u>1215</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>AGE-2</u>		<u>12-26</u>	<u>1205</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>MW-26</u>		<u>12-26</u>	<u>1300</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>MW-7</u>		<u>12-26</u>	<u>1309</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>MW-25</u>		<u>12-26</u>	<u>1315</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>MLU-1</u>		<u>12-26</u>	<u>1331</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>MW-4</u>		<u>12-26</u>	<u>1430</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>DUP-1</u>		<u>12-26</u>	<u>-</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>3</u>	<input checked="" type="checkbox"/>																									
<u>TRIP BLANK</u>		<u>-</u>	<u>-</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>																									
7 Turnaround Time Requested (TAT) (please circle) Standard <input checked="" type="checkbox"/> 5 day 4 day 72 hour 48 hour 24 hour				Relinquished by <u>SA - SEAMAS MCGUIRE</u>				Date <u>12-27-12</u>		Time <u>0800</u>		Received by _____				Date _____		Time _____																	
				Relinquished by _____				Date _____		Time _____		Received by _____				Date _____		Time _____																	
8 Data Package Options (please circle if required) Type I - Full Type VI (Raw Data)				Relinquished by Commercial Carrier:				Received by <u>Pat Gln</u>				Date <u>12/28/12</u>		Time <u>0930</u>																					
				UPS _____ FedEx <input checked="" type="checkbox"/> Other _____				Temperature Upon Receipt _____ °C				Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																							

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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