

July 30, 2014



Mr. Eric Roehl  
Chevron Environmental Management Company  
145 South State College Boulevard, Suite 400  
Brea, CA 92821

*Subject:* **Second Quarter 2014 Groundwater Monitoring and Sampling Report  
Former Unocal Bulk Plant No. 306562**  
1329 West Woodin Avenue  
Chelan, Washington

Dear Mr. Roehl:

Leidos Engineering, LLC (Leidos, formerly SAIC Energy, Environment & Infrastructure, LLC), on behalf of Chevron Environmental Management Company (CEMC), has prepared this letter summarizing groundwater monitoring activities at the Former Unocal Bulk Plant No. 306562. The site is located on the south side of West Woodin Avenue (Highway 97A) near the intersection of East Street in the city of Chelan, Washington. Lake Chelan is located approximately 200 feet to the northwest of the site.

On May 8 and 9, 2014, groundwater measurements were recorded from all monitoring wells and groundwater samples were collected from seven of the monitoring wells. A potentiometric map is presented in Figure 1. Field data sheets are included as Attachment A, and analytical data are presented in Table 1, Figure 2, and Attachment B. Monitoring and sampling activities were performed by Gettler-Ryan, Inc.

Groundwater flow direction is to the west and northwest at a gradient of 0.001 to 0.06 ft/ft. Groundwater elevations and flow direction are directly tied to water elevation fluctuations in Lake Chelan, and groundwater elevations have increased an average of 3.5 feet since the previous sampling event. Groundwater levels at the site are directly influenced by the elevation of Lake Chelan, which is controlled by a dam located on the east end of the lake. The lake level is lowered in fall and raised in the spring each year.

None of the analytes tested for were detected in groundwater at concentrations above their respective Model Toxics Control Act (MTCA) Method A cleanup levels during the May 2014 sampling event.

Historically, diesel- and heavy oil-range hydrocarbon concentrations have exceeded their respective MTCA Method A cleanup levels in monitoring wells MW-1A, MW-3A, MW-5A, and MW-8. However, dissolved-phase hydrocarbon concentrations across the entire property have steadily declined since the completion of remedial activities in 2005.

Since August 2011, only diesel-range hydrocarbons have been detected intermittently at concentrations above the MTCA Method A cleanup level in monitoring wells MW-3A and MW-5A. Seasonal fluctuations in diesel-range hydrocarbon concentrations are observed with fluctuations in groundwater elevation. The next groundwater monitoring and sampling event is scheduled for August 2014.

Please contact Don Wyll, the Leidos project manager, at (425) 482-3315 or [don.e.wyll@leidos.com](mailto:don.e.wyll@leidos.com) if you have any questions or comments about the information provided herein.

Sincerely,

**Leidos Engineering, LLC**



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Kinga B Kozłowska  
Environmental Scientist

Enclosures:

Figure 1 – Potentiometric Map

Figure 2 – Groundwater Analytical Results

Table 1 – Groundwater Monitoring Data and Analytical Results

Attachment A – Groundwater Sample Collection Data Forms

Attachment B – Laboratory Analysis Report

cc: Mr. Jack Raines – Chelan Parking LLC  
P.O. Box 237, Chelan, WA 98816

## **REPORT LIMITATIONS**

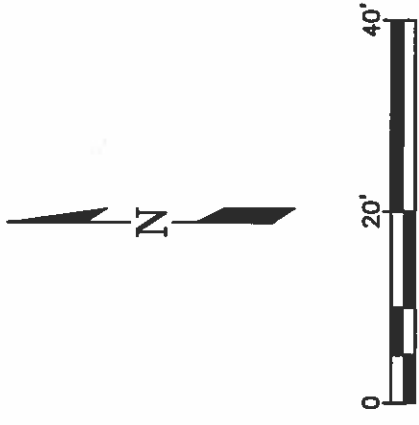
This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state, or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges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

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

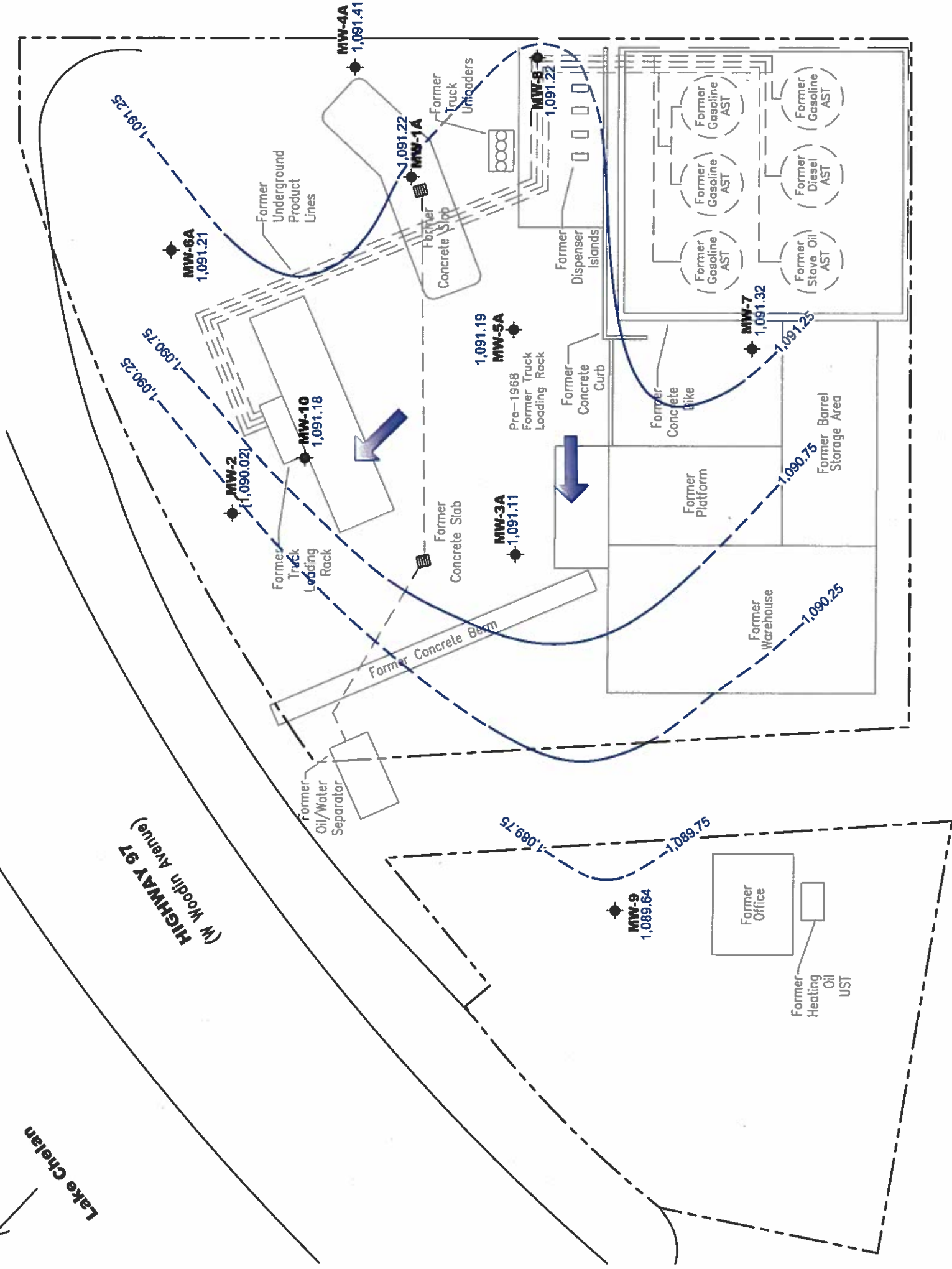
Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.

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

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



- Legend**
- MW-1A
  - 1,091.22
  - 1,091.25
  - [1,090.02]
  -
- Monitoring Well Location  
 Groundwater Elevation in Feet  
 Groundwater Elevation Contour at a 0.50 Foot Interval (Dashed Where Inferred)  
 Groundwater Elevation Not Used in Contours  
 Approximate Groundwater Flow Direction at a Gradient of 0.001 to 0.06 Feet per Foot



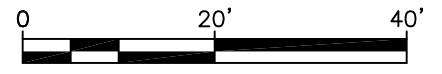
**FIGURE 1**  
 Potentiometric Map  
 May 8, 2014

Former Unocal Bulk Plant No. 306562  
 1329 West Woodin Avenue  
 Chelan, Washington



Lake Chelan

**HIGHWAY 97**  
(W Woodin Avenue)



MW-9	6/11/13	9/17/13	3/19/14	5/9/14
TPH-G	ND	ND	ND	ND
TPH-D	ND	ND	ND	ND
B	ND	ND	ND	ND

MW-3A	6/11/13	9/17/13	3/19/14	5/9/14
TPH-G	230	120	ND	ND
TPH-D	<b>1,300</b>	<b>510</b>	200	120
B	ND	ND	ND	ND

MW-10	6/11/13	9/17/13	3/19/14	5/9/14
TPH-G	ND	ND	ND	ND
TPH-D	ND	ND	ND	ND
B	ND	ND	ND	ND

MW-6A	6/11/13	9/17/13	3/19/14	5/9/14
TPH-G	ND	ND	ND	ND
TPH-D	ND	ND	ND	ND
B	ND	ND	ND	ND

MW-1A	6/11/13	9/17/13	3/19/14	5/9/14
TPH-G	ND	ND	--	ND
TPH-D	ND	ND	--	ND
B	ND	ND	--	ND

MW-5A	6/11/13	9/17/13	3/19/14	5/9/14
TPH-G	330	ND	99	130
TPH-D	150	150	<b>520</b>	170
B	ND	ND	ND	ND

MW-8	6/11/13	9/17/13	3/19/14	5/9/14
TPH-G	ND	ND	ND	ND
TPH-D	ND	ND	ND	ND
B	ND	ND	ND	ND

**MW-9**

**MW-3A**

**MW-2**

**MW-10**

**MW-6A**

**MW-4A**

**MW-1A**

**MW-5A**

**MW-8**

**MW-7**

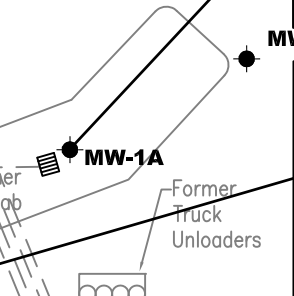
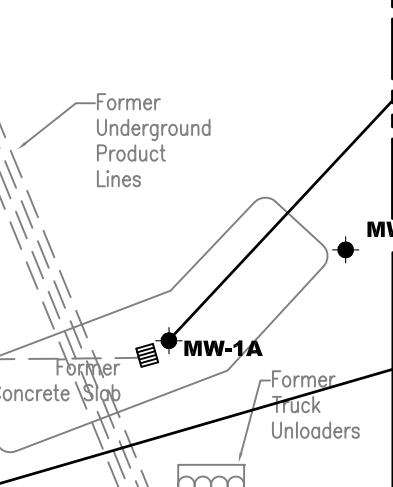
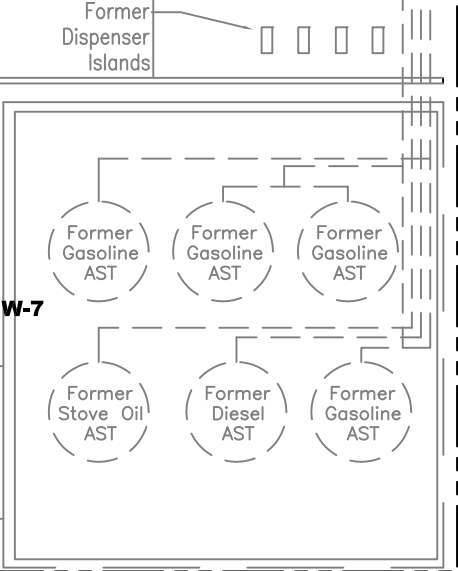
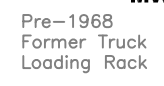
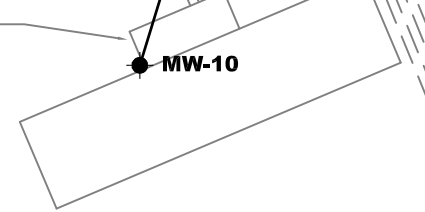
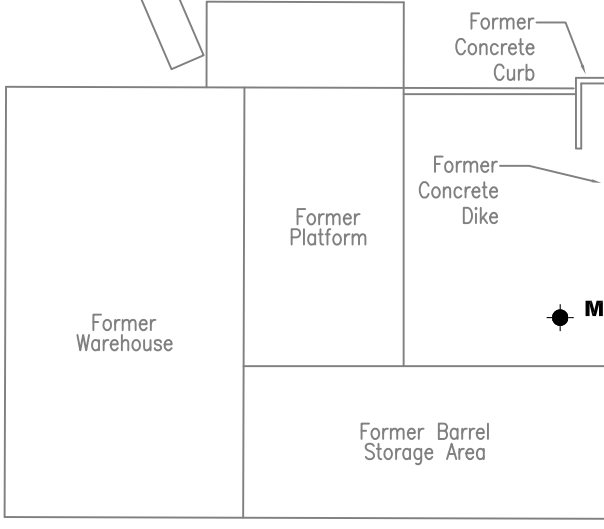
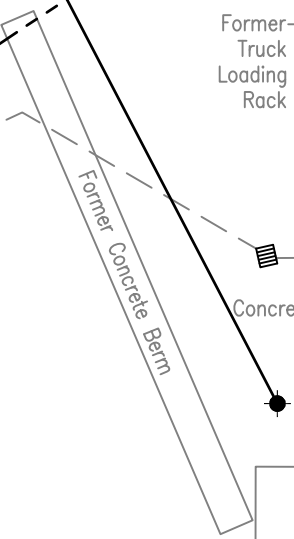
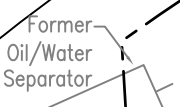
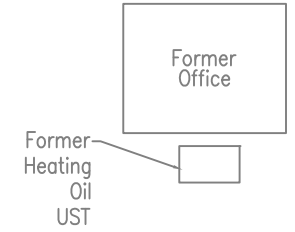
**Legend**

MW-1A ● Monitoring Well Location

WELL ID	DATE
TPH-G	GASOLINE-RANGE HYDROCARBONS
TPH-D	DIESEL-RANGE HYDROCARBONS
B	BENZENE

Units in Micrograms per Liter ( $\mu\text{g/L}$ )

- BOLD** Concentration Exceeding MTCA Method A Cleanup Level
- Not Analyzed
- ND Not Detected at or Above Laboratory Reporting Limits



Former Unocal Bulk Plant No. 306562  
1329 West Woodin Avenue  
Chelan, Washington

**FIGURE 2**  
Groundwater Analytical Results  
May 8, 2014

DATE: 6/18/2014

FILE NAME: 306562 Site Map 2012.dwg



**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS <sup>1</sup>**  
**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-1</b>												
12/4/89	--	--	--	--	--	<b>3,800</b>	--	<b>270</b>	150	94	700	--
4/9/91	--	--	--	--	<1,000	--	<b>2,800</b>	<b>280</b>	50	41	270	10
8/27/91	--	--	--	--	<b>15,000</b>	<b>5,300</b>	<b>3,000</b>	<b>84</b>	8.3	6.8	57	12
11/23/91	--	--	--	--	<b>19,000</b>	<b>14,000</b>	<b>12,000</b>	<b>250</b>	71	43	350	<b>59</b>
2/20/92	--	DRY	--	--	--	--	--	--	--	--	--	--
5/21/92	--	--	--	--	<b>9,900</b>	<b>25,000</b>	<b>1,200</b>	1.2	<0.5	0.57	4.3	<b>19</b>
8/19/92	--	--	--	--	<b>16,000</b>	--	570	<b>28</b>	5.0	4.7	24	<b>17</b>
11/12/92	--	--	--	--	<b>12,000</b>	--	<b>1,600</b>	<b>75</b>	53	19	150	--
2/25/93	--	DRY	--	--	--	--	--	--	--	--	--	--
8/24/93	--	--	--	--	<b>18,000</b>	<3,800	240	<b>15</b>	1.6	2.2	9.1	--
7/8/94	--	--	--	--	<b>3,200</b>	<b>930</b>	<50	0.88	<0.5	<0.5	<1	6.4
1/4/95	--	--	--	--	<b>2,000</b>	<b>1,900</b>	73	<b>27</b>	0.83	2.4	4.9	7.1
6/29/95	--	--	--	--	<b>5,600</b>	<b>2,000</b>	<50	0.69	<0.5	<0.5	<1	5.5
12/29/95	--	--	--	--	<b>21,000</b>	<b>6,800</b>	200	<b>28</b>	4.4	1.2	33	6.2
6/19/96	--	--	--	--	<b>15,500</b>	<b>1,020</b>	411	<b>13.7</b>	<0.5	<0.5	2.29	4.1
12/13/96	--	--	--	--	<b>1,910</b>	<750	<b>1,290</b>	<b>55</b>	9.2	15.8	112	<10
7/1/97	--	--	--	--	<b>1,200</b>	<750	94.8	<b>5.4</b>	<0.5	<0.5	1	2.9
12/30/97	--	--	--	--	<b>4,800</b>	<750	<b>10,490</b>	<b>33.6</b>	<25	<25	124	7.4
6/12/98	--	--	--	--	<250	<750	<50	1.29	<0.5	<0.5	<1	4.6
12/7/98	--	--	--	--	<b>792</b>	<750	<b>841</b>	<b>34.4</b>	7.21	15.8	115	4.7
6/21/99	--	--	--	--	<250	<750	<50	1.31	0.1	<0.5	1.09	2.6
5/25/01	--	--	--	--	<b>889</b>	<500	117	0.67	<0.5	<0.5	1.24	--
8/9/01	--	--	--	--	<b>2,370</b>	<500	114	1.89	<0.5	1.67	7.70	--
11/13/01	--	--	--	--	435	<500	616	<0.5	<0.5	<0.5	<1	--
1/30/02	--	--	--	--	<b>1,820</b>	<500	168	<0.5	<0.5	<0.5	<1	--
1/23/04	1,112.38	21.24	--	1,091.14	<b>952</b>	<500	54.3	<0.5	<0.5	<0.5	<1	--
4/12/04	1,112.38	25.83	--	1,086.55	<b>756</b>	<500	298	<0.5	<0.5	<0.5	<1	--
4/30/05	Decommissioned											
5/25/05	1,112.09	14.60	--	1,097.49	<b>13,700</b>	<2,500	79.6	<0.5	<0.5	<0.5	<1	--

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**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS <sup>1</sup>**  
**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-1A</b>												
7/6/05	1,115.76	14.20	--	1,101.56	<b>870</b>	<500	<50	<0.5	<0.5	<0.5	<1	--
8/23/05 <sup>4</sup>	1,115.76	--	--	--	<b>1,980</b>	<500	<50	<0.5	<0.5	<0.5	<1	--
8/30/05	1,115.76	--	--	--	<b>16,900</b>	<500	69.2	<0.5	<0.5	<0.5	<1	--
11/16/05	1,115.76	19.28	--	1,096.48	<245	<490	<50	<0.5	<0.5	<0.5	<1	--
4/5/06	1,115.76	DRY	--	--	--	--	--	--	--	--	--	--
7/25/06	1,115.76	14.07	--	1,101.69	<250	<500	<100	<0.5	<2	<1	<1.5	--
3/22/07	1,115.76	23.87	--	1,091.89	<b>6,900</b>	<b>2,500<sup>5</sup></b>	<48	<0.5	<0.5	<0.5	<1.5	--
8/9/07	1,115.76	14.18	--	1,101.58	<b>5,700</b>	<b>1,500</b>	<50	<0.5	<0.5	<0.5	<1.5	--
11/13/07	1,115.76	19.92	--	1,095.84	<b>7,000</b>	<b>970<sup>5</sup></b>	<50	<0.5	<0.5	<0.5	<1.5	--
3/8/08	1,115.76	DRY	--	--	--	--	--	--	--	--	--	--
5/23/08	1,115.76	26.18	--	1,089.58	<b>2,400</b>	<b>540<sup>5</sup></b>	<50	<0.5	<0.5	<0.5	<1.5	--
8/22/08	1,115.76	14.24	--	1,101.52	<b>3,100</b>	<b>320<sup>5</sup></b>	<50	<0.5	<0.5	<0.5	<1.5	--
2/11/09	1,115.76	24.58	--	1,091.18	<b>3,100</b>	<b>1,200<sup>5</sup></b>	<50	<0.5	<0.5	<0.5	<1.5	--
4/12/10	1,115.76	23.80	--	1,091.96	<b>1,400</b>	<700	<50	<0.5	<0.5	<0.5	<1.5	--
10/14/10	1,115.76	17.02	--	1,098.74	<b>2,400</b>	<b>1,500</b>	<50	<0.5	<0.5	<0.5	<1.5	--
4/12/11	1,115.76	28.81	--	1,086.95	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
10/11/11	1,115.76	17.1	--	1,098.66	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--
5/23/12	1,115.76	22.4	--	1,093.36	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--
8/23/12	1,115.76	14.30	--	1,101.46	<29	<69	<50	<0.5	<0.5	<0.5	<1.5	--
11/29/12	1,115.76	19.52	--	1,096.24	<29	<69	<50	<0.5	<0.5	<0.5	<1.5	--
3/13/13	1,115.76	27.28	--	1,088.48	<150	<350	<50	<0.5	<0.5	<0.5	<1.5	--
6/11/13	1,115.76	17.38	--	1,098.38	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--
9/17/13	1,115.76	14.95	--	1,100.81	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--
3/19/14	1,115.76	28.77	--	1,086.99	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
5/9/14	1,115.76	24.54	--	1,091.22	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--

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**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-2</b>												
12/4/89	--	--	--	--	--	230	--	<0.5	<0.5	<0.5	<0.5	--
4/9/91	--	--	--	--	<1,000	--	<1,000	<0.5	<0.5	<0.5	<0.5	9
8/27/91	--	--	--	--	<1,000	<1,000	<1,000	<0.5	<0.5	<0.5	<0.5	<2
11/23/91	--	--	--	--	<1,000	<1,000	<1,000	<0.5	<0.5	<0.5	<0.5	<3
2/20/92	--	DRY	--	--	--	--	--	--	--	--	--	--
5/21/92	--	--	--	--	<500	<1,000	<50	<0.5	<0.5	<0.5	<0.5	3.3
8/19/92	--	--	--	--	--	--	--	--	--	--	--	--
11/12/92	--	--	--	--	<b>1,000</b>	--	<100	<0.5	<0.5	<0.5	<0.5	--
2/25/93	--	DRY	--	--	--	--	--	--	--	--	--	--
8/24/93	--	--	--	--	<250	<750	<100	<0.5	<0.5	<0.5	<0.5	--
7/8/94	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	--
1/4/95	--	--	--	--	340	720	<50	<0.5	<0.5	<0.5	<1	--
6/29/95	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	--
12/29/95	--	--	--	--	<b>2,000</b>	<b>1,400</b>	<50	<0.5	<0.5	<0.5	<1	--
6/19/96	--	--	--	--	<b>518</b>	<750	<50	<0.5	<0.5	<0.5	<1	--
12/13/96	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	--
7/1/97	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	--
12/30/97	--	--	--	--	287	<750	--	--	--	--	--	--
6/12/98	--	--	--	--	<250	<750	<50	--	--	--	--	--
12/7/98	--	--	--	--	<250	<750	--	--	--	--	--	--
6/21/99	--	--	--	--	<250	<750	--	--	--	--	--	--
5/25/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
8/9/01	--	--	--	--	<301	<602	<50	<0.5	<0.5	<0.5	<1	--
11/13/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/30/02	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/23/04	1,115.41	20.62	--	1,094.79	<250	<500	<50	<0.5	<0.5	<0.5	<1	--



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**1329 West Woodin Avenue**  
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Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-2 (cont)</b>												
4/12/04	1,115.41	DRY	--	--	--	--	--	--	--	--	--	--
5/25/05	1,115.41	14.20	--	1,101.21	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
8/30/05	1,115.41	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
11/16/05	1,115.41	18.92	--	1,096.49	<248	<495	<50	<0.5	<0.5	<0.5	<1	--
4/5/06	1,115.41	DRY	--	--	--	--	--	--	--	--	--	--
7/25/06	1,115.41	13.69	--	1,101.72	<250	<500	<100	<0.5	<2	<1	<1.5	--
5/23/12	1,115.41	22.15	--	1,093.26	--	--	--	--	--	--	--	--
8/23/12	1,115.41	13.94	--	1,101.47	--	--	--	--	--	--	--	--
11/29/12	1,115.41	19.17	--	1,096.24	--	--	--	--	--	--	--	--
3/13/13	1,115.41	DRY	--	--	--	--	--	--	--	--	--	--
6/10/13	1,115.41	17.03	--	1,098.38	--	--	--	--	--	--	--	--
9/17/13	1,115.41	14.61	--	1,100.80	--	--	--	--	--	--	--	--
3/19/14	1,115.41	DRY	--	--	--	--	--	--	--	--	--	--
5/8/14	1,115.41	25.39	--	1,090.02	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--
<b>MW-3</b>												
12/4/89	--	--	--	--	--	<b>9,300</b>	--	<0.5	<0.5	<0.5	<0.5	--
4/9/91	--	--	--	--	<1,000	--	<1,000	3.9	<0.5	<0.5	1.6	12
8/27/91	--	--	--	--	<1,000	<1,000	<1,000	<0.5	<0.5	<0.5	<0.5	<2
11/23/91	--	--	--	--	<1,000	<1,000	<1,000	1.2	<0.5	<0.5	<0.5	<3
2/20/92	--	--	--	--	<b>12,000</b>	<b>6,600</b>	<1,000	<0.5	<0.5	<0.5	<0.5	<3
5/21/92	--	--	--	--	<b>3,500</b>	<b>9,000</b>	100	1.0	<0.5	<0.5	<1	2.9
8/19/92	--	--	--	--	<b>1,800</b>	--	<50	4.4	<0.5	<0.5	<0.5	<2
11/12/92	--	--	--	--	<b>1,800</b>	--	<100	<0.5	<0.5	<0.5	<0.5	--
2/25/93	--	--	--	--	<b>2,600</b>	--	<100	1.4	<0.5	<0.5	<0.5	--
8/24/93	--	--	--	--	<b>1,000</b>	<750	<100	1.6	<0.5	<0.5	<1	--
7/8/94	--	--	--	--	<b>2,000</b>	<b>1,200</b>	<50	0.95	<0.5	<0.5	<1	--

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS <sup>1</sup>**  
**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
Concentrations reported in µg/L

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-3 (cont)</b>												
1/4/95	--	--	--	--	<b>11,000</b>	<b>2,400</b>	59.0	2.8	<0.5	<0.5	<1	--
6/29/95	--	--	--	--	<b>2,300</b>	<b>1,700</b>	<50	<0.5	<0.5	<0.5	<1	--
12/29/95	--	--	--	--	<b>5,100</b>	<b>2,900</b>	<50	<0.5	<0.5	<0.5	<1	--
6/19/96	--	--	--	--	<b>4,790</b>	<b>1,940</b>	<50	<0.5	<0.5	<0.5	<1	--
12/13/96	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	--
7/1/97	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	--
12/30/97	--	--	--	--	280	<750	--	--	--	<0.5	--	--
6/12/98	--	--	--	--	<250	<750	--	--	--	--	--	--
12/7/98	--	--	--	--	<250	<750	--	--	--	--	--	--
6/21/99	--	--	--	--	<250	<750	--	--	--	--	--	--
5/25/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
8/9/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
11/13/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/30/02	--	--	--	--	379	<500	55	1.35	<0.5	<0.5	<1	--
1/23/04	1,112.15	20.99	--	1,091.16	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
4/12/04	1,112.15	25.57	--	1,086.58	<250	<500	70.8	<0.5	<0.5	<0.5	<1	--
4/30/05	Decommissioned											
<b>MW-3A</b>												
5/25/05	1,115.15	13.98	--	1,101.17	NOT SAMPLED DUE TO TURBIDITY							
7/6/05	1,115.15	13.57	--	1,101.58	473	<500	150	<0.5	<0.5	<0.5	<1	--
8/23/05 <sup>4</sup>	1,115.15	--	--	--	<b>620</b>	<500	256	<0.5	0.772	<0.5	<1	--
8/30/05	1,115.15	--	--	--	<b>566</b>	<500	299	<0.5	<0.5	0.741	<1	--
11/16/05	1,115.15	18.66	--	1,096.49	319	<485	166	<0.5	<0.5	0.741	<1	--
4/5/06	1,115.15	DRY	--	--	--	--	--	--	--	--	--	--
7/25/06	1,115.15	13.43	--	1,101.72	<b>2,290</b>	<500	153	<0.5	<2	<1	<1.5	--
3/22/07	1,115.15	23.30	--	1,091.85	<b>14,000</b>	<b>3,100<sup>5</sup></b>	93 <sup>5</sup>	<0.5	<0.5	<0.5	<1.5	--

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**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS <sup>1</sup>**  
**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
Concentrations reported in µg/L

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-3A (cont)</b>												
8/9/07	1,115.15	13.55	--	1,101.60	<b>9,300</b>	<b>3,400<sup>5</sup></b>	52 <sup>5</sup>	<0.5	<0.5	<0.5	1.7 <sup>5</sup>	--
11/13/07	1,115.15	19.30	--	1,095.85	<b>7,400</b>	<b>2,000<sup>5</sup></b>	<50	<0.5	<0.5	<0.5	<1.5	--
3/8/08	1,115.15	29.38	--	1,085.77	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
5/23/08	1,115.15	25.78	--	1,089.37	<b>11,000</b>	<b>1,800<sup>5</sup></b>	130 <sup>5</sup>	<0.5	<0.5	<0.5	<1.5	--
8/22/08	1,115.15	13.62	--	1,101.53	<b>7,700</b>	<1,000	150 <sup>5</sup>	<0.5	<0.5	<0.5	<1.5	--
2/11/09	1,115.15	23.92	--	1,091.23	<b>7,800</b>	<b>3,100<sup>5</sup></b>	66 <sup>5</sup>	<0.5	<0.5	<0.5	<1.5	--
4/12/10	1,115.15	23.18	--	1,091.97	<b>3,900</b>	<b>1,300</b>	<50	<0.5	<0.5	<0.5	<1.5	--
10/14/10	1,115.15	16.41	--	1,098.74	<b>3,900</b>	<b>1,600</b>	<50	<0.5	<0.5	<0.5	<1.5	--
4/12/11	1,115.15	28.45	--	1,086.70	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/11/11	1,115.15	16.45	--	1,098.70	72	<70	<50	<0.5	<0.5	<0.5	<1.5	--
5/23/12	1,115.15	21.90	--	1,093.25	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--
8/23/12	1,115.15	13.70	--	1,101.45	<b>1,500</b>	<69	260	<0.5	<0.5	<0.5	<1.5	--
11/29/12	1,115.15	18.92	--	1,096.23	84	<70	<50	<0.5	<0.5	<0.5	<1.5	--
3/13/13	1,115.15	26.65	--	1,088.50	370	<71	<50	<0.5	<0.5	<0.5	<1.5	--
6/11/13	1,115.15	16.74	--	1,098.41	<b>1,300</b>	<76	230	<0.5	<0.5	<0.5	<1.5	--
9/17/13	1,115.15	14.73	--	1,100.42	<b>510</b>	<72	120	<0.5	<0.5	<0.5	<1.5	--
3/19/14	1,115.15	27.34	--	1,087.81	200	<72	<50	<0.5	<0.5	<0.5	<1.5	--
5/9/14	1,115.15	24.04	--	1,091.11	120	<70	<50	<0.5	<0.5	<0.5	<1.5	--
<b>MW-4</b>												
4/9/91	--	--	--	--	<1,000	--	<1,000	<0.5	<0.5	<0.5	<0.5	<b>45</b>
8/27/91	--	--	--	--	<1,000	<1,000	<1,000	<0.5	<0.5	<0.5	<0.5	<b>15</b>
11/23/91	--	--	--	--	<1,000	<1,000	<1,000	<0.5	<0.5	<0.5	<0.5	<b>15</b>
2/20/92	--	--	--	--	--	--	--	--	--	--	--	--
5/21/92	--	--	--	--	<b>600</b>	<b>2,100</b>	<50	<0.5	<0.5	<0.5	<0.5	<b>41</b>
8/19/92	--	--	--	--	--	--	--	--	--	--	--	--
11/12/92	--	--	--	--	--	--	--	--	--	--	--	--

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**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-4 (cont)</b>												
2/25/93	--	--	--	--	--	--	--					--
8/24/93	--	--	--	--	280	<750	<100	<0.5	<0.5	<0.5	<0.5	--
7/8/94	--	--	--	--	<b>630</b>	<b>910</b>	<50	<0.5	<0.5	<0.5	<1	2.9
1/4/95	--	--	--	--	<b>750</b>	<b>880</b>	<50	<0.5	<0.5	<0.5	<1	6.4
6/29/95	--	--	--	--	490	<b>1,500</b>	<50	<0.5	<0.5	<0.5	<1	2.2
12/29/95	--	--	--	--	<b>1,700</b>	<b>1,400</b>	<50	<0.5	<0.5	<0.5	<1	6.3
6/19/96	--	--	--	--	<b>2,530</b>	<b>1,840</b>	<50	<0.5	<0.5	<0.5	<1	5.7
12/13/96	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	<10
7/1/97	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	4.2
12/30/97	--	--	--	--	<250	<750	--	--	--	--	--	3.2
6/12/98	--	--	--	--	<250	<750	--	--	--	--	--	2.4
12/7/98	--	--	--	--	<250	<750	--	--	--	--	--	2.4
6/21/99	--	--	--	--	<250	<750	--	--	--	--	--	--
5/25/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
8/9/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
11/13/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/30/02	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/23/04	1,112.35	21.22	--	1,091.13	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
4/12/04	1,112.35	25.82	--	1,086.53	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
4/30/05	Decommissioned											

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**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-4A</b>												
5/25/05	1,115.87	14.68	--	1,101.19	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
7/6/05	1,115.87	14.30	--	1,101.57	--	--	--	--	--	--	--	--
8/23/05 <sup>4</sup>	1,115.87	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
8/30/05	1,115.87	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
11/16/05	1,115.87	19.37	--	1,096.50	<243	<485	<50	<0.5	<0.5	<0.5	<1	--
4/5/06	1,115.87	DRY	--	--	--	--	--	--	--	--	--	--
7/25/06	1,115.87	14.17	--	1,101.70	<250	<500	<100	<0.5	<2	<1	<1.5	--
5/23/12	1,115.87	22.55	--	1,093.32	--	--	--	--	--	--	--	--
8/23/12	1,115.87	14.40	--	1,101.47	--	--	--	--	--	--	--	--
11/29/12	1,115.87	19.64	--	1,096.23	--	--	--	--	--	--	--	--
3/13/13	1,115.87	27.31	--	1,088.56	--	--	--	--	--	--	--	--
6/10/13	1,115.87	17.51	--	1,098.36	--	--	--	--	--	--	--	--
9/17/13	1,115.87	15.06	--	1,100.81	--	--	--	--	--	--	--	--
3/19/14	1,115.87	29.47	--	1,086.40	--	--	--	--	--	--	--	--
5/9/14	1,115.87	24.46	--	1,091.41	--	--	--	--	--	--	--	--
<b>MW-5</b>												
4/9/91	--	--	--	--	<1,000	--	<b>3,200</b>	<b>300</b>	20	78	410	<5
8/27/91	--	--	--	--	<b>20,000</b>	<b>2,500</b>	<b>7,000</b>	<b>270</b>	21	38	460	<4
11/23/91	--	--	--	--	<b>17,000</b>	<b>9,400</b>	<b>6,000</b>	<b>280</b>	12	100	350	<3
2/20/92	--	--	--	--	<b>8,000</b>	<b>5,200</b>	<b>4,000</b>	<b>220</b>	28	120	440	<3
5/21/92	--	--	--	--	<b>9,900</b>	<b>6,800</b>	<b>2,500</b>	<b>160</b>	11	170	190	5.3
8/19/92	--	--	--	--	--	--	<b>2,200</b>	<b>130</b>	6.1	70	180	<2
11/12/92	--	--	--	--	<b>15,000</b>	--	<b>2,100</b>	<b>91</b>	5.8	<0.5	110	--
2/25/93	--	--	--	--	--	--	--	--	--	--	--	--
8/24/93	--	--	--	--	<b>11,000</b>	<3,800	<b>1,500</b>	<b>86</b>	4.1	47	92	--
7/8/94	--	--	--	--	<b>16,000</b>	<b>3,000</b>	<b>3,000</b>	<b>67</b>	3.5	43	130	--
1/4/95	--	--	--	--	<b>13,000</b>	<b>2,300</b>	<b>1,000</b>	<0.5	0.91	20	53	--

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**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-5 (cont)</b>												
6/29/95	--	--	--	--	<b>11,000</b>	<b>2,900</b>	<b>3,300</b>	<b>73</b>	9.5	110	260	--
12/29/95	--	--	--	--	<b>23,000</b>	<b>8,900</b>	<b>1,300</b>	<b>70</b>	2.6	37	47	--
6/19/96	--	--	--	--	<b>17,500</b>	<b>5,540</b>	<b>2,200</b>	<b>43.1</b>	3.85	55.7	122	--
12/13/96	--	--	--	--	<b>853</b>	<750	<b>1,130</b>	<b>51.8</b>	2.94	34	65	--
7/1/97	--	--	--	--	<b>557</b>	<750	<b>3,890</b>	<b>87.7</b>	14.4	144	294	--
12/30/97	--	--	--	--	<b>525</b>	<750	<b>1,920</b>	<b>62.8</b>	6.01	55	155	--
6/12/98	--	--	--	--	295	<750	<b>3,820</b>	<b>88.1</b>	13.4	76.6	400	--
12/7/98	--	--	--	--	388	<750	<b>1,860</b>	<b>77</b>	8.74	68	260	--
6/21/99	--	--	--	--	468	<750	<b>1,050</b>	<b>31.1</b>	1.24	<0.5	74.9	--
5/25/01	--	--	--	--	<b>8,250</b>	<500	<b>1,740</b>	<b>56.2</b>	8.18	88.2	221	--
8/9/01	--	--	--	--	<b>8,600</b>	<b>502</b>	<b>1,030</b>	<b>50.3</b>	2.69	34.1	71.8	--
11/13/01	--	--	--	--	275	<500	<50	0.72	<0.5	<0.5	1.69	--
1/30/02	--	--	--	--	309	<500	222	<b>21.5</b>	0.96	7.66	14.2	--
1/23/04	1,112.20	21.09	--	1,091.11	<b>513</b>	<500	235	<b>2.35</b>	0.671	1.28	2	--
4/12/04	1,112.20	25.65	--	1,086.55	<250	<500	389	0.79	1.03	1.14	2.19	--
4/30/05	Decommissioned											
<b>MW-5A</b>												
5/25/05	1,115.91	14.74	--	1,101.17	<b>3,350</b>	<500	<b>850</b>	3.64	<0.5	8.28	7.76	--
7/6/05	1,115.91	14.35	--	1,101.56	<b>3,740</b>	<500	<b>807</b>	3.41	1.68	13.6	27.9	--
8/23/05 <sup>4</sup>	1,115.91	--	--	--	<b>4,680</b>	<500	<b>863</b>	2.68	12.4	1.17	29.1	--
8/30/05	1,115.91	--	--	--	<b>16,500</b>	<500	<b>941</b>	1.22	0.904	6.05	10.5	--
11/16/05	1,115.91	19.44	--	1,096.47	<b>1,960</b>	<490	<b>1,300</b>	<0.5	<0.5	2.59	<1	--
4/5/06	1,115.91	DRY	--	--	--	--	--	--	--	--	--	--
7/25/06	1,115.91	14.20	--	1,101.71	<250	<500	189	0.975	<2	<1	2.49	--
3/22/07	1,115.91	24.05	--	1,091.86	<b>17,000</b>	<b>5,600<sup>5</sup></b>	250 <sup>5</sup>	<0.5	<0.5	<0.5	<1.5	--
8/9/07	1,115.91	14.32	--	1,101.59	<b>7,500</b>	<b>2,300<sup>5</sup></b>	220 <sup>5</sup>	<0.5	<0.5	0.9 <sup>5</sup>	<1.5	--
11/13/07	1,115.91	20.09	--	1,095.82	<b>11,000</b>	<b>2,500<sup>5</sup></b>	600	<0.5	0.6 <sup>5</sup>	1.4 <sup>5</sup>	2.3 <sup>5</sup>	--
3/8/08	1,115.91	29.27	--	1,086.64	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
5/23/08	1,115.91	26.43	--	1,089.48	<b>5,900</b>	<2,000	190 <sup>5</sup>	<0.5	<0.5	0.6 <sup>5</sup>	<1.5	--

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS <sup>1</sup>**  
**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-5A (cont)</b>												
8/22/08	1,115.91	14.40	--	1,101.51	<b>6,900</b>	<b>1,400<sup>5</sup></b>	290	0.5 <sup>5</sup>	1.1 <sup>5</sup>	0.8 <sup>5</sup>	1.6 <sup>5</sup>	--
2/11/09	1,115.91	24.75	--	1,091.16	<b>13,000</b>	<b>4,900</b>	170 <sup>5</sup>	<0.5	<0.5	0.6 <sup>5</sup>	<1.5	--
4/12/10	1,115.91	23.97	--	1,091.94	<b>9,900</b>	<b>2,300</b>	240	<0.5	<0.5	0.5	<1.5	--
10/14/10	1,115.91	17.17	--	1,098.74	<b>12,000</b>	<b>4,100</b>	330	<0.5	<0.5	<0.5	<1.5	--
4/12/11	1,115.91	29.24	--	1,086.67	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
10/11/11	1,115.91	17.25	--	1,098.66	120	<71	<50	<0.5	<0.5	<0.5	<1.5	--
5/23/12	1,115.91	22.60	--	1,093.31	36	<74	170	<0.5	<0.5	1.1	2.3	--
8/23/12	1,115.91	14.45	--	1,101.46	140	<69	72	<0.5	<0.5	<0.5	<1.5	--
11/29/12	1,115.91	19.68	--	1,096.23	370	<72	140	<0.5	<0.5	0.6	<1.5	--
3/13/13	1,115.91	27.44	--	1,088.47	<b>870</b>	<70	100	<0.5	<0.5	<0.5	<1.5	--
6/11/13	1,115.91	17.46	--	1,098.45	150	<70	330	<0.5	<0.5	3.6	2.2	--
9/17/13	1,115.91	15.13	--	1,100.78	150	<70	<50	<0.5	<0.5	<0.5	<1.5	--
3/19/14	1,115.91	27.78	--	1,088.13	<b>520</b>	<68	99	<0.5	<0.5	<0.5	<1.5	--
5/9/14	1,115.91	24.72	--	1,091.19	170	<69	130	<0.5	<0.5	<0.5	<1.5	--
<b>MW-6</b>												
4/9/91	--	--	--	--	<1,000	--	<1,000	<0.5	<0.5	<0.5	<0.5	<5
8/27/91	--	--	--	--	<1,000	<1,000	<1,000	<0.5	<0.5	<0.5	<0.5	<2
11/23/91	--	--	--	--	<1,000	<1,000	<1,000	<0.5	<0.5	<0.5	<0.5	<3
2/20/92	--	--	--	--	<1,000	<1,000	<1,000	<0.5	<0.5	<0.5	<0.5	<3
5/21/92	--	--	--	--	<500	<b>1,700</b>	<50	<0.5	<0.5	<0.5	<0.5	4.7
8/19/92	--	--	--	--	<250	--	<50	<0.5	<0.5	<0.5	<0.5	<2
11/12/92	--	--	--	--	<500	--	<100	<0.5	<0.5	<0.5	<0.5	--
2/25/93	--	DRY	--	--	--	--	--	--	--	--	--	--
8/24/93	--	--	--	--	--	--	<100	<0.5	<0.5	<0.5	<0.5	--
7/8/94	--	--	--	--	360	<b>840</b>	<50	<0.5	<0.5	<0.5	<1	--
1/4/95	--	--	--	--	470	<b>800</b>	<50	<0.5	<0.5	<0.5	<1	--
6/29/95	--	--	--	--	260	<b>1,000</b>	<50	<0.5	<0.5	<0.5	<1	--

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS <sup>1</sup>**  
**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-6 (cont)</b>												
12/29/95	--	--	--	--	270	<b>890</b>	<50	<0.5	<0.5	<0.5	<1	--
6/19/96	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1	--
12/13/96	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	--
7/1/97	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	--
12/30/97	--	--	--	--	<250	<750	--	--	--	--	--	--
6/12/98	--	--	--	--	<250	<750	--	--	--	--	--	--
12/7/98	--	--	--	--	<250	<750	--	--	--	--	--	--
6/21/99	--	--	--	--	<250	<750	--	--	--	--	--	--
5/25/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
8/9/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
11/13/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/30/02	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/23/04	1,115.82	21.02	--	1,094.80	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
4/12/04	1,115.82	25.64	--	1,090.18	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
5/25/05	1,115.82	UNABLE TO LOCATE		--	--	--	--	--	--	--	--	--
8/30/05	1,115.82	UNABLE TO LOCATE		--	--	--	--	--	--	--	--	--
11/16/05	1,115.82	19.30	--	1,096.52	<245	<490	<50	<0.5	<0.5	<0.5	<1	--
4/5/06	1,115.82	DRY	--	--	--	--	--	--	--	--	--	--
7/25/06	1,115.82	14.09	--	1,101.73	<250	<500	<100	<0.5	<2	<1	<1.5	--
<b>MW-6A</b>												
5/23/12	1,115.93	22.60	--	1,093.33	<30	<71	<50	<0.5	<0.5	<0.5	<1.5	--
8/23/12	1,115.93	14.40	--	1,101.53	<29	<69	<50	<0.5	<0.5	<0.5	<1.5	--
11/29/12	1,115.93	19.60	--	1,096.33	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--
3/13/13	1,115.93	27.36	--	1,088.57	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--
6/11/13	1,115.93	17.51	--	1,098.42	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--
9/17/13	1,115.93	15.06	--	1,100.87	<31	<71	<50	<0.5	<0.5	<0.5	<1.5	--
3/19/14	1,115.93	27.74	--	1,088.19	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--
5/9/14	1,115.93	24.72	--	1,091.21	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--



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**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS <sup>1</sup>**  
**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
Concentrations reported in µg/L

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-7</b>												
11/15/92	--	--	--	--	<b>1,700</b>	--	<100	<0.5	<0.5	<0.5	0.7	--
2/25/93	--	--	--	--	--	--	--	--	--	--	--	--
8/24/93	--	--	--	--	<250	<250	<100	<0.5	<0.5	<0.5	<0.5	--
7/8/94	--	--	--	--	<50.0	<b>600</b>	<50	<0.5	<0.5	<0.5	<1	2
1/4/95	--	--	--	--	<50.0	<b>1,300</b>	<50	<0.5	<0.5	<0.5	<1	<2
6/29/95	--	--	--	--	370	<b>1,000</b>	<50	<0.5	<0.5	<0.5	<1	--
12/29/95	--	--	--	--	<b>510</b>	<b>1,000</b>	<50	<0.5	<0.5	<0.5	<1	--
6/19/96	--	--	--	--	<b>841</b>	<b>789</b>	<50	<0.5	<0.5	<0.5	<1	--
12/13/96	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	<1	--
7/1/97	--	--	--	--	<250	<750	<50	<0.5	<0.5	<0.5	--	--
12/30/97	--	--	--	--	<250	<750	--	--	--	--	--	--
6/12/98	--	--	--	--	<250	<750	--	--	--	--	--	--
12/7/98	--	--	--	--	<250	<750	--	--	--	--	--	--
6/21/99	--	--	--	--	<250	<750	--	--	--	--	--	--
5/25/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
8/9/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
11/13/01	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/30/02	--	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/23/04	1,121.04	26.41	--	1,094.63	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
4/12/04	1,121.04	30.92	--	1,090.12	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
5/25/05	1,121.04	19.88	--	1,101.16	315	<500	<50	<0.5	<0.5	<0.5	<1	--
7/6/05	1,121.04	--	--	--	--	--	--	--	--	--	--	--
8/30/05	1,121.04	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
11/16/05	1,121.04	24.55	--	1,096.49	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
4/5/06	1,121.04	DRY	--	--	--	--	--	--	--	--	--	--

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**FORMER UNOCAL BULK PLANT NO. 306562**  
**1329 West Woodin Avenue**  
**Chelan, Washington**  
**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-7 (cont)</b>												
7/25/06	1,121.04	19.32	--	1,101.72	<250	<500	<100	<0.5	<2	<1	<1.5	--
3/22/07	--	--	--	--	<48	--	--	<0.5	<0.5	<0.5	<1.5	--
8/9/07	--	--	--	--	<50	--	--	<0.5	<0.5	<0.5	<1.5	--
11/13/07	--	--	--	--	<50	--	--	<0.5	<0.5	<0.5	<1.5	--
5/23/08	1,121.04	DRY	--	--	<50	--	--	<0.5	<0.5	<0.5	<1.5	--
8/22/08	--	--	--	--	<50	--	--	<0.5	<0.5	<0.5	<1.5	--
2/11/09	--	--	--	--	<50	--	--	<0.5	<0.5	<0.5	<1.5	--
4/12/10	--	--	--	--	--	--	--	--	--	--	--	--
10/14/10	--	--	--	--	--	--	--	--	--	--	--	--
4/12/11	--	--	--	--	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--
10/11/11	1,121.04	24.38	--	1,096.66	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--
5/26/12	1,121.04	27.50	--	1,093.54	<33	<77	<50	<0.5	<0.5	<0.5	<1.5	--
8/23/12	1,121.04	19.56	--	1,101.48	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--
11/29/12	1,121.04	24.85	--	1,096.19	<39	<90	<50	<0.5	<0.5	<0.5	<1.5	--
3/13/13	1,121.04	32.55	--	1,088.49	<34	<80	<50	<0.5	<0.5	<0.5	<1.5	--
6/10/13	1,121.04	22.63	--	1,098.41	--	--	--	--	--	--	--	--
9/17/13	1,121.04	20.26	--	1,100.78	--	--	--	--	--	--	--	--
3/19/14	1,121.04	33.18	--	1,087.86	--	--	--	--	--	--	--	--
5/8/14	1,121.04	29.72	--	1,091.32	--	--	--	--	--	--	--	--
<b>MW-8</b>												
05/25/01	1,116.28	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
08/09/01	1,116.28	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
11/13/01	1,116.28	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
01/30/02	1,116.28	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
1/23/04	1,116.28	21.54	--	1,094.74	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
4/12/04	1,116.28	26.12	--	1,090.16	<250	<500	<50	<0.5	<0.5	<0.5	<1	--

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**1329 West Woodin Avenue**  
**Chelan, Washington**  
**Concentrations reported in µg/L**

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-8 (cont)</b>												
5/25/05	1,116.28	15.10	--	1,101.18	<b>3,260</b>	<b>911</b>	<50	<0.5	<0.5	<0.5	<1	--
7/6/05	1,116.28	14.71	--	1,101.57	351	<500	<50		<0.5	<0.5	<1	--
8/23/05 <sup>4</sup>	1,116.28	--	--	--	<250	<500	<50	<0.5	<0.5	<0.5	<1	--
8/30/05	1,116.28	--	--	--	<250	<b>1,040</b>	<50	<0.5	<0.5	<0.5	<1	--
11/16/05	1,116.28	19.80	--	1,096.48	<243	<485	<50	<0.5	<0.5	<0.5	<1	--
4/5/06	1,116.28	DRY	--	--	--	--	--	--	--	--	--	--
7/25/06	1,116.28	14.56	--	1,101.72	<250	<500	<100	<0.5	<2	<1	<1.5	--
3/22/07	1,116.28	24.39	--	1,091.89	<b>1,500</b>	<b>570<sup>5</sup></b>	<48	<0.5	<0.5	<0.5	<1.5	--
8/9/07	1,116.28	14.71	--	1,101.57	<b>3,000</b>	<b>1,600</b>	<50	<0.5	<0.5	0.7 <sup>5</sup>	3.8 <sup>5</sup>	--
11/13/07	1,116.28	20.43	--	1,095.85	<b>1,900</b>	<b>890</b>	<50	<0.5	<0.5	<0.5	<1.5	--
3/8/08	1,116.28	29.88	--	1,086.40	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--
5/23/08	1,116.28	26.61	--	1,089.67	<b>710</b>	170 <sup>5</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
8/22/08	1,116.28	14.78	--	1,101.50	<b>1,500</b>	110 <sup>5</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
2/11/09	1,116.28	25.13	--	1,091.15	<b>1,100</b>	<b>810</b>	<50	<0.5	<0.5	<0.5	<1.5	--
4/12/10	1,116.28	24.34	--	1,091.94	430	140	<50	<0.5	<0.5	<0.5	<1.5	--
10/14/10	1,116.28	17.55	--	1,098.73	<b>1,100</b>	<b>610</b>	<50	<0.5	<0.5	<0.5	<1.5	--
4/12/11	1,116.28	29.60	--	1,086.68	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--
10/11/11	1,116.28	17.60	--	1,098.68	<31	<72	<50	<0.5	<0.5	<0.5	<1.5	--
5/23/12	1,116.28	22.90	--	1,093.38	<31	<73	<50	<0.5	<0.5	<0.5	<1.5	--
8/23/12	1,116.28	14.82	--	1,101.46	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--
11/29/12	1,116.28	20.06	--	1,096.22	<30	<71	<50	<0.5	<0.5	<0.5	<1.5	--
3/13/13	1,116.28	27.80	--	1,088.48	<29	<69	<50	<0.5	<0.5	<0.5	<1.5	--
6/11/13	1,116.28	17.91	--	1,098.37	<31	<73	<50	<0.5	<0.5	<0.5	<1.5	--
9/17/13	1,116.28	15.48	--	1,100.80	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--
3/19/14	1,116.28	28.14	--	1,088.14	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--
5/9/14	1,116.28	25.06	--	1,091.22	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--

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**Chelan, Washington**  
Concentrations reported in µg/L

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>MW-9</b>												
5/23/12	1,113.62	20.25	--	1,093.37	<31	<72	<50	<0.5	<0.5	<0.5	<1.5	--
8/23/12	1,113.62	12.15	--	1,101.47	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--
11/29/12	1,113.62	17.40	--	1,096.22	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--
3/13/13	1,113.62	25.12	--	1,088.50	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--
6/11/13	1,113.62	16.80	--	1,096.82	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--
9/17/13	1,113.62	14.34	--	1,099.28	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--
3/19/14	1,113.62	27.07	--	1,086.55	<31	<71	<50	<0.5	<0.5	<0.5	<1.5	--
5/9/14	1,113.62	23.98	--	1,089.64	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--
<b>MW-10</b>												
5/23/12	1,115.56	22.25	--	1,093.31	<31	<72	<50	<0.5	<0.5	<0.5	<1.5	--
8/23/12	1,115.56	14.08	--	1,101.48	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--
11/29/12	1,115.56	19.33	--	1,096.23	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--
3/13/13	1,115.56	27.10	--	1,088.46	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--
6/11/13	1,115.56	17.16	--	1,098.40	<32	<74	<50	<0.5	<0.5	<0.5	<1.5	--
9/17/13	1,115.56	14.74	--	1,100.82	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--
3/19/14	1,115.56	27.40	--	1,088.16	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--
5/9/14	1,115.56	24.38	--	1,091.18	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--
<b>QA</b>												
4/12/11	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/11/11	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
5/23/12	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
8/23/12	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
11/29/12	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
3/14/13	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
6/7/13	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS <sup>1</sup>**  
**FORMER UNOCAL BULK PLANT NO. 306562**

1329 West Woodin Avenue

Chelan, Washington

Concentrations reported in µg/L

Well ID/ Date	TOC <sup>2</sup> (ft.)	DTW (ft. BTOC)	SPHT (ft.)	GWE <sup>3</sup> (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Lead
<b>QA (cont)</b>												
9/17/13	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
3/19/14	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
5/9/14	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
Standard Laboratory Reporting Limits:					--	--	50	0.5	0.5	0.5	1.5	--
MTCA Method A Cleanup Levels:					500	500	800/1,000	5	1,000	700	1,000	15
Current Method: <sup>6</sup>					NWTPH-Dx + Extended <sup>7</sup>		NWTPH-Gx	USEPA 8021B				--

**Abbreviations:**

BTOC = Below top of casing

BTEX = Benzene, toluene, ethylbenzene, and total xylenes

DTW = Depth to water

Ecology = Washington State Department of Ecology

ft. = Feet

GWE = Goundwater elevation

MTCA = Model Toxics Control Act

NAVD88 = North American Vertical Datum 1988

SPH = Separate-phase hydrocarbon

SPHT = SPH thickness

TOC = Top of casing

TPH = Total Petroleum Hydrocarbons

TPH-DRO = TPH as diesel-range hydrocarbons

TPH-GRO = TPH as gasoline-range hydrocarbons

TPH-HRO = TPH as heavy oil-range hydrocarbons

USEPA = United States Environmental Protection Agency

µg/L = Micrograms per liter

-- = Not Tested/Not Analyzed

**Notes:**

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

2 TOC data provided by ENSR on October 17, 2008 in feet based on NAVD88 datum.

3 When SPH is present, GWE has been corrected using the following formula:  $GWE = [(TOC - DTW) + (SPHT \times 0.80)]$ .

4 Sample collected immediately after vacuum extraction event.

5 Laboratory report indicates estimated value.

6 Laboratory analytical methods for historical data may not be consistent with list of current analytical methods. When necessary, consult original laboratory reports to verify methods used.

7 Analyzed with silica-gel clean up.

**Attachment A:**  
**Groundwater Sample Collection Data Forms**

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# GETTLER-RYAN INC.



## TRANSMITTAL

May 19, 2014  
G-R #385524

TO: Mr. Don Wyll  
Leidos, Inc.  
18912 North Creek Parkway, Suite 101  
Bothell, Washington 98011

FROM: Deanna L. Harding  
Project Coordinator  
Gettler-Ryan Inc.  
6805 Sierra Court, Suite G  
Dublin, California 94568

RE: **Chevron Facility**  
**#306562**  
**(Former Unocal #0082)**  
**Highway 97 and East Street**  
**Chelan, Washington**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Second Quarter Event of May 8 & 9, 2014

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/306562





## 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 #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8/9.14 (inclusive)  
 Sampler: SP

Well ID: MW-1A  
 Well Diameter: 2  
 Total Depth: 29.09 ft.  
 Depth to Water: 27.54 ft.  
4.55 xVF = .17 = .77

Date Monitored: 5.8.14

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	<u>2" = 0.17</u>	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]: 26.45  
 x3 case volume = Estimated Purge Volume: 2.5 gal.

### Purge Equipment:

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

### Sampling Equipment:

Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): 1632 Weather Conditions: SUNNY  
 Sample Time/Date: 1634 / 5.9.14 Water Color: CLOUDY Odor: Y/N  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: GREYISH - BROWN  
 Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 25.63

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ( $\mu\text{mhos/cm} - \mu\text{S}$ )	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1640</u>	<u>1.5</u>	<u>6.78</u>	<u>219</u>	<u>14.4/11</u>		
<u>1648</u>	<u>2.5</u>	<u>6.66</u>	<u>201</u>	<u>14.60</u>		

### LABORATORY INFORMATION

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

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8/9.14 (inclusive)  
 Sampler: J.P.

Well ID: MW-2  
 Well Diameter: 2  
 Total Depth: 28.43 ft.  
 Depth to Water: 25.39 ft.

Date Monitored: 5.8.14

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.

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 \_\_\_\_\_
- Metal Filters \_\_\_\_\_
- Peristaltic Pump \_\_\_\_\_
- QED Bladder Pump \_\_\_\_\_
- Other: \_\_\_\_\_

Time Started:	_____ (2400 hrs)
Time Completed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	_____ ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	
Amt Removed from Skimmer:	_____ gal
Amt Removed from Well:	_____ gal
Water Removed:	_____ gal
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
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

### COMMENTS:

DRY @ INSUFFICIENT H<sub>2</sub>O  
MONITOR ONLY

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8/9.14 (inclusive)  
 Sampler: JP

Well ID: MW-3A  
 Well Diameter: 2  
 Total Depth: 29.58 ft.  
 Depth to Water: 27.64 ft.  
5.54 xVF = .17 = .94 x3 case volume = Estimated Purge Volume: 3 gal.

Date Monitored: 5.8.14

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]: 25.14

### Purge Equipment:

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

### Sampling Equipment:

Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): 1715  
 Sample Time/Date: 1740 5.9.14  
 Approx. Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Weather Conditions: SUNNY  
 Water Color: CLOUDY Odor: (Y) N MILD  
 Sediment Description: GREYISH  
 DTW @ Sampling: 24.96

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ( <del>umho/cm</del> <u>uS</u> )	Temperature (C) (F)	D.O. (mg/L)	ORP (mV)
<u>1721</u>	<u>1</u>	<u>6.89</u>	<u>1.044</u>	<u>14.09</u>		
<u>1727</u>	<u>2</u>	<u>6.81</u>	<u>1.022</u>	<u>14.10</u>		
<u>1732</u>	<u>3</u>	<u>6.77</u>	<u>1.000</u>	<u>14.30</u>		

### LABORATORY INFORMATION

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

COMMENTS: SOCK IN WELL

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8/9.14 (inclusive)  
 Sampler: J.P.

Well ID: MW-4A  
 Well Diameter: 2  
 Total Depth: 29.76  
 Depth to Water: 24.46 ft.

Date Monitored: 5.8.14

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 5.3 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 \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): \_\_\_\_\_  
 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
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

COMMENTS: M.O

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8/9.14 (inclusive)  
 Sampler: J.P.

Well ID: MW-5A  
 Well Diameter: 2  
 Total Depth: 29.48 ft.  
 Depth to Water: 27.72 ft.

Date Monitored: 5.8.14

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	<u>2" = 0.17</u>	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]: 25.67  
 xVF .17 = .09 x3 case volume = Estimated Purge Volume: 2.5 gal.

**Purge Equipment:**  
 Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

**Sampling Equipment:**  
 Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): 1800 Weather Conditions: SUNNY  
 Sample Time/Date: 1823 5.9.14 Water Color: CLOUDY Odor: YIN  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: GREYISH  
 Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 25.83

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C F)	D.O. (mg/L)	ORP (mV)
<u>1809</u>	<u>1.5</u>	<del>1.00</del>	<del>1.00</del>	<del>1.00</del>		
<u>1816</u>	<u>2.5</u>	<u>.989</u>	<u>6.62</u>	<u>14.34</u>		
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5A</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	<u>2</u> x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8.14 (inclusive)  
 Sampler: V.P.

Well ID: MW-6A  
 Well Diameter: 2  
 Total Depth: 34.48 ft.  
 Depth to Water: 24.72 ft.  
9.76 x VF = .17 = 1.6

Date Monitored: 5.8.14

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]: 26.67 gal.

**Purge Equipment:**  
 Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

**Sampling Equipment:**  
 Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): 1453  
 Sample Time/Date: 1527 / 5.9.14  
 Approx. Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_

Weather Conditions: SUNNY  
 Water Color: CLOUDY Odor: YIN  
 Sediment Description: GREYISH  
 gal. DTW @ Sampling: 26.13

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - pS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1502</u>	<u>2</u>	<u>7.66</u>	<u>.958</u>	<u>13.79</u>		
<u>1512</u>	<u>4</u>	<u>7.61</u>	<u>.952</u>	<u>14.61</u>		
<u>1519</u>	<u>5</u>	<u>6.91</u>	<u>.943</u>	<u>14.22</u>		

### LABORATORY INFORMATION

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

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8.14 (inclusive)  
 Sampler: J.P.

Well ID: MW-7  
 Well Diameter: 2  
 Total Depth: 33.34 ft.  
 Depth to Water: 29.72 ft.  
3.62 xVF = - = -

Date Monitored: 5.8.14

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 \_\_\_\_\_
- Metal Filters \_\_\_\_\_
- Peristaltic Pump \_\_\_\_\_
- QED Bladder Pump \_\_\_\_\_
- Other: \_\_\_\_\_

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

Start Time (purge): \_\_\_\_\_ 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
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

COMMENTS: M.O

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_





# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8/9.14 (inclusive)  
 Sampler: J.P.

Well ID: MW-0

Date Monitored: 5.8.14

Well Diameter: 2

Total Depth: 30.30 ft.

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

Depth to Water: 25.06 ft.

Check if water column is less than 0.50 ft.

5.32 xVF -.17 = .90

x3 case volume = Estimated Purge Volume: 3 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 26.12

**Purge Equipment:**

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

**Sampling Equipment:**

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

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

Start Time (purge): 1550

Weather Conditions: SUNNY

Sample Time/Date: 1012/5.9.14

Water Color: CLOUDY Odor: Y/N

Approx. Flow Rate: \_\_\_\_\_ gpm.

Sediment Description: BROWNISH

Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 25.81

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C) / (F)	D.O. (mg/L)	ORP (mV)
<u>1550</u>	<u>1</u>	<u>6.80</u>	<u>.740</u>	<u>13.00</u>		
<u>1601</u>	<u>2</u>	<u>6.91</u>	<u>.752</u>	<u>14.10</u>		
<u>1606</u>	<u>3</u>	<u>7.00</u>	<u>.760</u>	<u>14.22</u>		

**LABORATORY INFORMATION**

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

**COMMENTS:**

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8/9.14 (inclusive)  
 Sampler: J.P.

Well ID: MW-9

Date Monitored: 5.8.14

Well Diameter: 2

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

Total Depth: 36.00 ft.

Depth to Water: 23.98 ft.

Check if water column is less than 0.50 ft.

12.10 xVF .17 = 2.0 x3 case volume = Estimated Purge Volume: 4 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 26.40

**Purge Equipment:**

Disposable Bailer: X  
 Stainless Steel Bailer: \_\_\_\_\_  
 Stack Pump: \_\_\_\_\_  
 Suction Pump: \_\_\_\_\_  
 Grundfos: \_\_\_\_\_  
 Peristaltic Pump: \_\_\_\_\_  
 QED Bladder Pump: \_\_\_\_\_  
 Other: YDI

**Sampling Equipment:**

Disposable Bailer: X  
 Pressure Bailer: \_\_\_\_\_  
 Metal Filters: \_\_\_\_\_  
 Peristaltic Pump: \_\_\_\_\_  
 QED Bladder Pump: \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): 1300  
 Sample Time/Date: 1333 5.9.14  
 Approx. Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Weather Conditions: SUNNY  
 Water Color: CLOUDY Odor: Y/N  
 Sediment Description: BROWNISH  
 DTW @ Sampling: 26.11

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm-µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1311</u>	<u>2</u>	<u>7.18</u>	<u>1.137</u>	<u>14.67</u>		
<u>1319</u>	<u>4</u>	<u>7.01</u>	<u>1.122</u>	<u>14.37</u>		
<u>1328</u>	<u>6</u>	<u>6.93</u>	<u>1.101</u>	<u>14.03</u>		

**LABORATORY INFORMATION**

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

**COMMENTS:**

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #306562  
 Site Address: Hwy 97 & East Street  
 City: Chelan, WA

Job Number: 385524  
 Event Date: 5.8/9.14 (inclusive)  
 Sampler: J.P.

Well ID: MW-10  
 Well Diameter: 2  
 Total Depth: 34.56 ft.  
 Depth to Water: 24.38 ft.

Date Monitored: 5.8.14

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	<u>2" = 0.17</u>	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]: 26.41  
 xVF 0.17 = 1.7 x3 case volume = Estimated Purge Volume: 5 gal.

### Purge Equipment:

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

### Sampling Equipment:

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

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

Start Time (purge): 1400 Weather Conditions: SUNNY  
 Sample Time/Date: 1430 5.9.14 Water Color: cloudy Odor: Y/N  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: GREYISH  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 26.13

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1411</u>	<u>2</u>	<u>6.71</u>	<u>1.189</u>	<u>14.1</u>		
<u>1419</u>	<u>4</u>	<u>6.79</u>	<u>1.199</u>	<u>13.91</u>		
<u>1426</u>	<u>5</u>	<u>6.86</u>	<u>1.209</u>	<u>13.77</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-10</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	<u>2</u> x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



**Attachment B:**  
**Laboratory Analysis Report**

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## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

May 23, 2014

Project: 306562

Submittal Date: 05/14/2014  
Group Number: 1474223  
PO Number: 0015143985  
Release Number: ROEHL  
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
QA Water	7462825
MW-1A Grab Groundwater	7462826
MW-3A Grab Groundwater	7462827
MW-5A Grab Groundwater	7462828
MW-6A Grab Groundwater	7462829
MW-8 Grab Groundwater	7462830
MW-9 Grab Groundwater	7462831
MW-10 Grab Groundwater	7462832

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Don Wyll

Respectfully Submitted,



Amek Carter  
Specialist

(717) 556-7252

Sample Description: QA Water  
Facility# 306562 Job# 385524  
Hwy 97 & East Street - Chelan, WA

LL Sample # WW 7462825  
LL Group # 1474223  
Account # 11260

Project Name: 306562

Collected: 05/09/2014

Chevron

Submitted: 05/14/2014 09:35

6001 Bollinger Canyon Road

Reported: 05/23/2014 10:32

L4310

San Ramon CA 94583

ESCQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
02102	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1

General Sample Comments

State of Washington Lab Certification No. C457

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14135A53A	05/16/2014 14:53	Marie D Beamenderfer	1
02102	Method 8021 Water Master	SW-846 8021B	1	14135A53A	05/16/2014 14:53	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14135A53A	05/16/2014 14:53	Marie D Beamenderfer	1



Sample Description: MW-1A Grab Groundwater  
Facility# 306562 Job# 385524  
Hwy 97 & East Street - Chelan, WA

LL Sample # WW 7462826  
LL Group # 1474223  
Account # 11260

Project Name: 306562

Collected: 05/09/2014 16:54 by JP

Chevron

6001 Bollinger Canyon Road

Submitted: 05/14/2014 09:35

L4310

Reported: 05/23/2014 10:32

San Ramon CA 94583

ESC01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
	<b>ECY 97-602 NWTPH-Gx</b>		<b>ug/l</b>	<b>ug/l</b>	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Volatiles</b>					
	<b>SW-846 8021B</b>		<b>ug/l</b>	<b>ug/l</b>	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Petroleum</b>					
	<b>ECY 97-602 NWTPH-Dx</b>		<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	70	1
The reverse surrogate, capric acid, is present at <1%.					

### General Sample Comments

State of Washington Lab Certification No. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14135A53A	05/16/2014 16:16	Marie D Beamenderfer	1
02102	Method 8021 Water Master	SW-846 8021B	1	14135A53A	05/16/2014 16:16	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14135A53A	05/16/2014 16:16	Marie D Beamenderfer	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141360031A	05/21/2014 17:12	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141360031A	05/19/2014 08:05	Olivia Arosemena	1

Sample Description: MW-3A Grab Groundwater  
Facility# 306562 Job# 385524  
Hwy 97 & East Street - Chelan, WA

LL Sample # WW 7462827  
LL Group # 1474223  
Account # 11260

Project Name: 306562

Collected: 05/09/2014 17:40 by JP

Chevron

6001 Bollinger Canyon Road

Submitted: 05/14/2014 09:35

L4310

Reported: 05/23/2014 10:32

San Ramon CA 94583

ESC03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
	<b>ECY 97-602 NWTPH-Gx</b>		<b>ug/l</b>	<b>ug/l</b>	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Volatiles</b>					
	<b>SW-846 8021B</b>		<b>ug/l</b>	<b>ug/l</b>	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Petroleum</b>					
	<b>ECY 97-602 NWTPH-Dx</b>		<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
12005	DRO C12-C24 w/Si Gel	n.a.	120	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	70	1
The reverse surrogate, capric acid, is present at <1%.					

### General Sample Comments

State of Washington Lab Certification No. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14135A53A	05/16/2014 17:40	Marie D Beamenderfer	1
02102	Method 8021 Water Master	SW-846 8021B	1	14135A53A	05/16/2014 17:40	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14135A53A	05/16/2014 17:40	Marie D Beamenderfer	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141360031A	05/21/2014 17:33	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141360031A	05/19/2014 08:05	Olivia Arosemena	1

Sample Description: MW-5A Grab Groundwater  
Facility# 306562 Job# 385524  
Hwy 97 & East Street - Chelan, WA

LL Sample # WW 7462828  
LL Group # 1474223  
Account # 11260

Project Name: 306562

Collected: 05/09/2014 18:23 by JP

Chevron

6001 Bollinger Canyon Road

Submitted: 05/14/2014 09:35

L4310

Reported: 05/23/2014 10:32

San Ramon CA 94583

ESC05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
	<b>ECY 97-602 NWTPH-Gx</b>		<b>ug/l</b>	<b>ug/l</b>	
08274	NWTPH-Gx water C7-C12	n.a.	130	50	1
<b>GC Volatiles</b>					
	<b>SW-846 8021B</b>		<b>ug/l</b>	<b>ug/l</b>	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Petroleum</b>					
	<b>ECY 97-602 NWTPH-Dx</b>		<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
12005	DRO C12-C24 w/Si Gel	n.a.	170	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
The reverse surrogate, capric acid, is present at <1%.					

### General Sample Comments

State of Washington Lab Certification No. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14135A53A	05/16/2014 18:08	Marie D Beamenderfer	1
02102	Method 8021 Water Master	SW-846 8021B	1	14135A53A	05/16/2014 18:08	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14135A53A	05/16/2014 18:08	Marie D Beamenderfer	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141360031A	05/21/2014 17:55	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141360031A	05/19/2014 08:05	Olivia Arosemena	1

Sample Description: MW-6A Grab Groundwater  
Facility# 306562 Job# 385524  
Hwy 97 & East Street - Chelan, WA

LL Sample # WW 7462829  
LL Group # 1474223  
Account # 11260

Project Name: 306562

Collected: 05/09/2014 15:24 by JP

Chevron

6001 Bollinger Canyon Road

Submitted: 05/14/2014 09:35

L4310

Reported: 05/23/2014 10:32

San Ramon CA 94583

ESC06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
	<b>ECY 97-602 NWTPH-Gx</b>		<b>ug/l</b>	<b>ug/l</b>	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Volatiles</b>					
	<b>SW-846 8021B</b>		<b>ug/l</b>	<b>ug/l</b>	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Petroleum</b>					
	<b>ECY 97-602 NWTPH-Dx</b>		<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	70	1
The reverse surrogate, capric acid, is present at <1%.					

### General Sample Comments

State of Washington Lab Certification No. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14135A53A	05/16/2014 18:36	Marie D Beamenderfer	1
02102	Method 8021 Water Master	SW-846 8021B	1	14135A53A	05/16/2014 18:36	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14135A53A	05/16/2014 18:36	Marie D Beamenderfer	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141360031A	05/21/2014 18:17	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141360031A	05/19/2014 08:05	Olivia Arosemena	1

Sample Description: MW-8 Grab Groundwater  
Facility# 306562 Job# 385524  
Hwy 97 & East Street - Chelan, WA

LL Sample # WW 7462830  
LL Group # 1474223  
Account # 11260

Project Name: 306562

Collected: 05/09/2014 16:12 by JP

Chevron

6001 Bollinger Canyon Road

Submitted: 05/14/2014 09:35

L4310

Reported: 05/23/2014 10:32

San Ramon CA 94583

ESC08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
	<b>ECY 97-602 NWTPH-Gx</b>		<b>ug/l</b>	<b>ug/l</b>	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Volatiles</b>					
	<b>SW-846 8021B</b>		<b>ug/l</b>	<b>ug/l</b>	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Petroleum</b>					
	<b>ECY 97-602 NWTPH-Dx</b>		<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, is present at <1%.					

### General Sample Comments

State of Washington Lab Certification No. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14135A53A	05/16/2014 19:03	Marie D Beamenderfer	1
02102	Method 8021 Water Master	SW-846 8021B	1	14135A53A	05/16/2014 19:03	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14135A53A	05/16/2014 19:03	Marie D Beamenderfer	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141360031A	05/21/2014 18:38	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141360031A	05/19/2014 08:05	Olivia Arosemena	1

Sample Description: MW-9 Grab Groundwater  
Facility# 306562 Job# 385524  
Hwy 97 & East Street - Chelan, WA

LL Sample # WW 7462831  
LL Group # 1474223  
Account # 11260

Project Name: 306562

Collected: 05/09/2014 13:33 by JP

Chevron

6001 Bollinger Canyon Road  
L4310

Submitted: 05/14/2014 09:35

San Ramon CA 94583

Reported: 05/23/2014 10:32

ESC09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
	<b>ECY 97-602 NWTPH-Gx</b>		<b>ug/l</b>	<b>ug/l</b>	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Volatiles</b>					
	<b>SW-846 8021B</b>		<b>ug/l</b>	<b>ug/l</b>	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Petroleum</b>					
	<b>ECY 97-602 NWTPH-Dx</b>		<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					

### General Sample Comments

State of Washington Lab Certification No. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14135A53A	05/16/2014 19:31	Marie D Beamenderfer	1
02102	Method 8021 Water Master	SW-846 8021B	1	14135A53A	05/16/2014 19:31	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14135A53A	05/16/2014 19:31	Marie D Beamenderfer	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141360031A	05/21/2014 19:00	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141360031A	05/19/2014 08:05	Olivia Arosemena	1

Sample Description: MW-10 Grab Groundwater  
Facility# 306562 Job# 385524  
Hwy 97 & East Street - Chelan, WA

LL Sample # WW 7462832  
LL Group # 1474223  
Account # 11260

Project Name: 306562

Collected: 05/09/2014 14:30 by JP

Chevron

6001 Bollinger Canyon Road

Submitted: 05/14/2014 09:35

L4310

Reported: 05/23/2014 10:32

San Ramon CA 94583

ESC10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
	<b>ECY 97-602 NWTPH-Gx</b>		<b>ug/l</b>	<b>ug/l</b>	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
<b>GC Volatiles</b>					
	<b>SW-846 8021B</b>		<b>ug/l</b>	<b>ug/l</b>	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Petroleum</b>					
	<b>ECY 97-602 NWTPH-Dx</b>		<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si modified</b>					
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, is present at <1%.					

### General Sample Comments

State of Washington Lab Certification No. C457

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14135A53A	05/16/2014 19:59	Marie D Beamenderfer	1
02102	Method 8021 Water Master	SW-846 8021B	1	14135A53A	05/16/2014 19:59	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14135A53A	05/16/2014 19:59	Marie D Beamenderfer	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141360031A	05/21/2014 19:21	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141360031A	05/19/2014 08:05	Olivia Arosemena	1

## Quality Control Summary

Client Name: Chevron Group Number: 1474223  
Reported: 05/23/14 at 10:32 AM

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: 14135A53A	Sample number(s): 7462825-7462832							
Benzene	N.D.	0.2	ug/l	96		80-120		
Ethylbenzene	N.D.	0.2	ug/l	95		80-120		
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	106	107	75-135	2	30
Toluene	N.D.	0.2	ug/l	97		80-120		
Total Xylenes	N.D.	0.2	ug/l	98		80-120		
Batch number: 141360031A	Sample number(s): 7462826-7462832							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	70	72	32-117	2	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 14135A53A	Sample number(s): 7462825-7462832 UNSPK: P463060								
Benzene	83 (2)	76 (2)	84-126	1	30				
Ethylbenzene	101	102	80-133	0	30				
Toluene	104	102	80-133	1	30				
Total Xylenes	101	101	80-132	0	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: 14135A53A

	Trifluorotoluene-P	Trifluorotoluene-F
7462825	78	70
7462826	77	70
7462827	77	70
7462828	78	72
7462829	78	67

\*- Outside of specification

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



## Quality Control Summary

Client Name: Chevron  
Reported: 05/23/14 at 10:32 AM

Group Number: 1474223

### Surrogate Quality Control

7462830	78	69
7462831	78	69
7462832	78	69
Blank	78	70
LCS	77	77
LCSD		77
MS	78	
MSD	78	

---

Limits: 51-120                      63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel  
Batch number: 141360031A  
Orthoterphenyl

---

7462826	99
7462827	89
7462828	85
7462829	87
7462830	98
7462831	90
7462832	81
Blank	110
LCS	98
LCSD	100

---

Limits: 50-150

\*- Outside of specification

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



# Explanation of Symbols and Abbreviations

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

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter

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

> greater than

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

**ppb** parts per billion

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

*Data Qualifiers:*

**C** – result confirmed by reanalysis.

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

*U.S. EPA CLP Data Qualifiers:*

**Organic Qualifiers**

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

**Inorganic Qualifiers**

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

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

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

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

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

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