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9:13 am, May 03, 2010

Alameda County  
Environmental Health

**Aaron Costa**  
Project Manager  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
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San Ramon, CA 94583  
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Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: Chevron Service Station No. 9-3600  
2200 Telegraph Avenue  
Oakland, CA

I have reviewed the attached report dated April 30, 2010.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga-Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in black ink that reads "Aaron Costa".

Aaron Costa  
Project Manager

Attachment: Report



**CONESTOGA-ROVERS  
& ASSOCIATES**

5900 Hollis Street, Suite A  
Emeryville, California 94608  
Telephone: (510) 420-0700 Fax: (510) 420-9170  
<http://www.craworld.com>

April 30, 2010

Reference No. 311965

Mr. Mark Detterman  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: First Semi-Annual 2010 Groundwater Monitoring and Sampling Report  
Chevron Service Station 9-3600  
2200 Telegraph Avenue  
Oakland, California  
Fuel Leak Case No. RO0002435

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Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this *First Semi-Annual 2010 Groundwater Monitoring and Sampling Report* on behalf of Chevron Environmental Management Company (Chevron), for the site referenced above. Groundwater monitoring data is being submitted in accordance with the reporting requirements of 23CCR2652d. Presented below are the site background, current monitoring and sampling results, CRA's conclusions and recommendations, and anticipated future activities.

## **SITE BACKGROUND**

### ***Site Description***

The site is an active Chevron gasoline service station located at the southeast corner of Telegraph and West Grand Avenues in Oakland, California (Figure 1). Chevron purchased the land in 1951 and operated a retail service station until 1983. In 1984, all station facilities and improvements were removed when Chevron attempted to sell the land. Due to the Bay Area Rapid Transit (BART) right of way, Chevron was unable to sell the land, and in 1985 rebuilt the station in to its current configuration. In 2000, Chevron sold the land and facilities to the station dealer. Current site facilities consist of a kiosk, bathroom, storage room, three 10,000 gallon underground storage tanks (UST) that share a common pit near the northeastern corner of the site, five dispenser islands covered by a canopy, and associated product piping (Figure 2).

The site is surrounded by commercial businesses. A Valero gasoline station is located to the west at the southwest corner of Telegraph and West Grand Avenues, an auto repair facility is located to the north across West Grand Avenue, and Douglas parking lot is located to the east.

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April 30, 2010

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BART tracks run northwest to southeast beneath the center of the site in an underground tunnel at a depth of approximately 30 feet below grade (fbg).

### *Site Geology*

Regional sediments consist of alluvial deposits composed of unconsolidated fine-grained, poorly-graded aeolian sand. The alluvial deposits range in thickness up to 60 feet. Generally unconfined conditions prevail in this water-bearing formation (CRWQCB-SFBR 1999).<sup>1</sup> Soils encountered beneath the site generally consist of silty and clayey sand from grade to depths of approximately 5 to 10 fbg, underlain by sandy clay and poorly-graded sand to the total depth explored of 20 fbg.

### *Hydrogeology*

The site is located within the East Bay Plain, a northwest trending alluvial plain deposited in a Franciscan Complex depression. Groundwater in this region has been identified as beneficial for agricultural, municipal, and industrial uses.<sup>2</sup> Groundwater occurs principally in alluvial deposits of Pleistocene to Holocene ages that overlie non-water bearing rocks of the Franciscan assemblage (CRWQCB-SFBR 1999). Groundwater beneath the site has been monitored quarterly since April 2002 by three onsite wells. Depth to groundwater varies little and has historically ranged on average from 11 to 12 fbg. Groundwater flows consistently towards the southeast.

## **RESULTS OF THE FIRST SEMI-ANNUAL 2010 SAMPLING EVENT**

### *Groundwater Monitoring*

On January 28, 2010, Blaine Tech gauged and sampled wells MW-1, MW-2, and MW-3. Depth to groundwater ranged from 10.23 to 10.81 fbg. Groundwater flowed towards the south-southeast at a gradient of 0.002. Blaine Tech's January 29, 2010 *First Quarter 2010 Monitoring* report is included as Attachment A. Groundwater elevations and hydrocarbon concentration data from this event are presented on Figure 2.

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<sup>1</sup> *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, California*; California Regional Water Quality Control Board - San Francisco Bay Region Groundwater Committee; June 1999.

<sup>2</sup> Table 2-2 Existing and Potential Beneficial Uses in Groundwater in Identified Basins; *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*; California Regional Water Quality Control Board- San Francisco Bay Region, January 18, 2007.



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Groundwater samples were submitted to Lancaster Laboratories and analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), and oxygenates, including methyl tertiary butyl ether (MTBE). The laboratory report is included as Attachment B. Current hydrocarbon concentrations are presented and compared to environmental screening levels (ESLs) where groundwater is a potential source of drinking water<sup>3</sup> in Table A. Cumulative groundwater monitoring and sampling data are presented in Tables 1 and 2.

<b>TABLE A: HYDROCARBON CONCENTRATIONS IN GROUNDWATER</b>						
	<i>TPHg</i>	<i>Benzene</i>	<i>Toluene</i>	<i>Ethylbenzene</i>	<i>Xylenes</i>	<i>MTBE</i>
<i>Groundwater ESLs</i>	<b>100</b>	<b>1.0</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>5</b>
	<i>concentrations in micrograms per liter (µg/L)</i>					
MW-1	<b>2,600</b>	<0.5	<0.5	2	<0.5	<b>31</b>
MW-2	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<50	<0.5	<0.5	<0.5	<0.5	<0.5

#### ***Dissolved Hydrocarbon Delineation***

No benzene was detected in groundwater. Dissolved TPHg and MTBE are only detected in well MW-1 located south of the UST pit and are defined to the northwest (upgradient) by MW-2 and to the southwest (crossgradient) by MW-3.

#### ***Concentration Trends***

No benzene has been detected in groundwater since 2004. TPHg concentrations in MW-1 are fluctuating, but are stable. MTBE concentrations in well MW-1 are stable, and remain two orders of magnitude below the historic maximum in 2003.

### **CONCLUSIONS AND RECOMMENDATIONS**

The first quarter 2010 sampling event results indicate dissolved hydrocarbon concentrations are stable or decreasing in well MW-1, and are not detected in wells MW-2 and MW-3, therefore

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<sup>3</sup> *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Prepared by California Regional Water Quality Control Board San Francisco Bay Region, Interim Final - November 2007, (Revised May 2008), Table F-1a-Groundwater Screening Levels-Current or Potential Drinking Water Resource.



**CONESTOGA-ROVERS  
& ASSOCIATES**

April 30, 2010

Reference No. 311965

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CRA recommends reviewing the site for low-risk closure. Additionally, CRA recommends the discontinuation of analyzing for the fuel oxygenates di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), and tertiary amyl methyl ether (TAME) in groundwater samples.

### **ANTICIPATED FUTURE ACTIVITIES**

#### ***Groundwater Monitoring and Sampling***

Blaine Tech will monitor and sample the site wells during the third quarter. Within 60 days of the sampling event, CRA will prepare and submit a sampling report which will include a site summary, conclusions, and recommendations with the third quarter sampling data.

#### ***Closure Evaluation***

CRA will review site conditions and assess whether the site meets low risk groundwater case closure criteria. If so, CRA will submit a closure request.



**CONESTOGA-ROVERS  
& ASSOCIATES**

April 30, 2010

Reference No. 311965

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Please contact Mr. Nathan Lee at (510) 420-3333 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

A handwritten signature in black ink that reads 'Kiersten Hoey'. The signature is fluid and cursive, with a large loop at the end of the last name.

Kiersten Hoey

A handwritten signature in black ink that reads 'N. Scott MacLeod'. The signature is more angular and less cursive than the one to its left.

N. Scott MacLeod, P.G. #5747



KH/mws/5  
Encl.

Figure 1	Vicinity Map
Figure 2	Groundwater Elevation and Hydrocarbon Concentration Map
Table 1	Groundwater Monitoring Data and Analytical Results
Table 2	Groundwater Analytical Results - Oxygenate Compounds
Attachment A	Blaine Tech's January 29, 2010 <i>First Quarter 2010 Monitoring Report</i>
Attachment B	Lancaster Laboratories' February 12, 2010 Analytical Report

cc: Mr. Aaron Costa, Chevron

## FIGURES

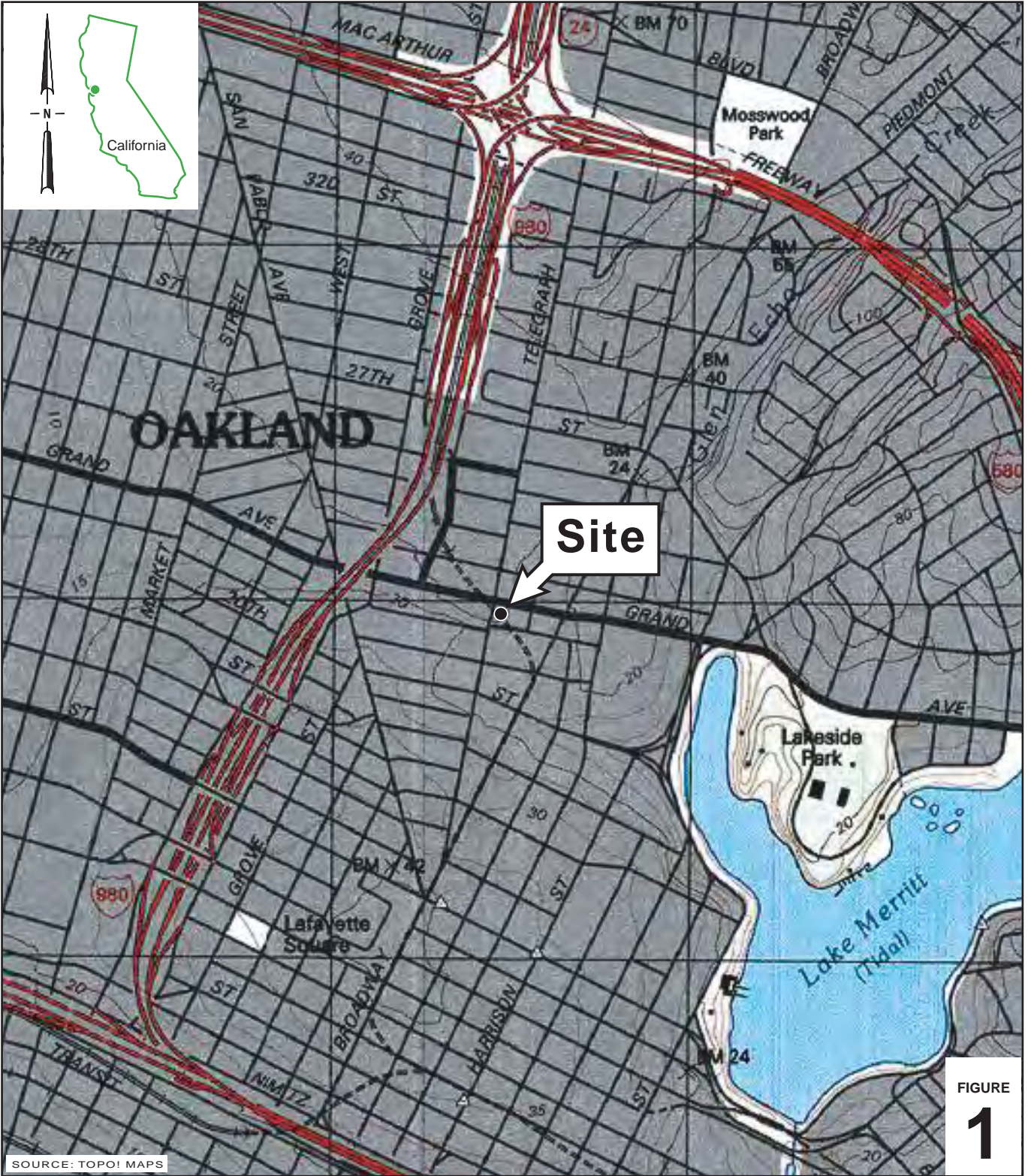


FIGURE  
**1**

I:\9-3600 OAKLAND\FIGURES\9-3600\_VICINITY-MAP.A1

SOURCE: TOPOI MAPS  
0 1/8 1/4 1/2 1  
SCALE : 1" = 1/4 MILE

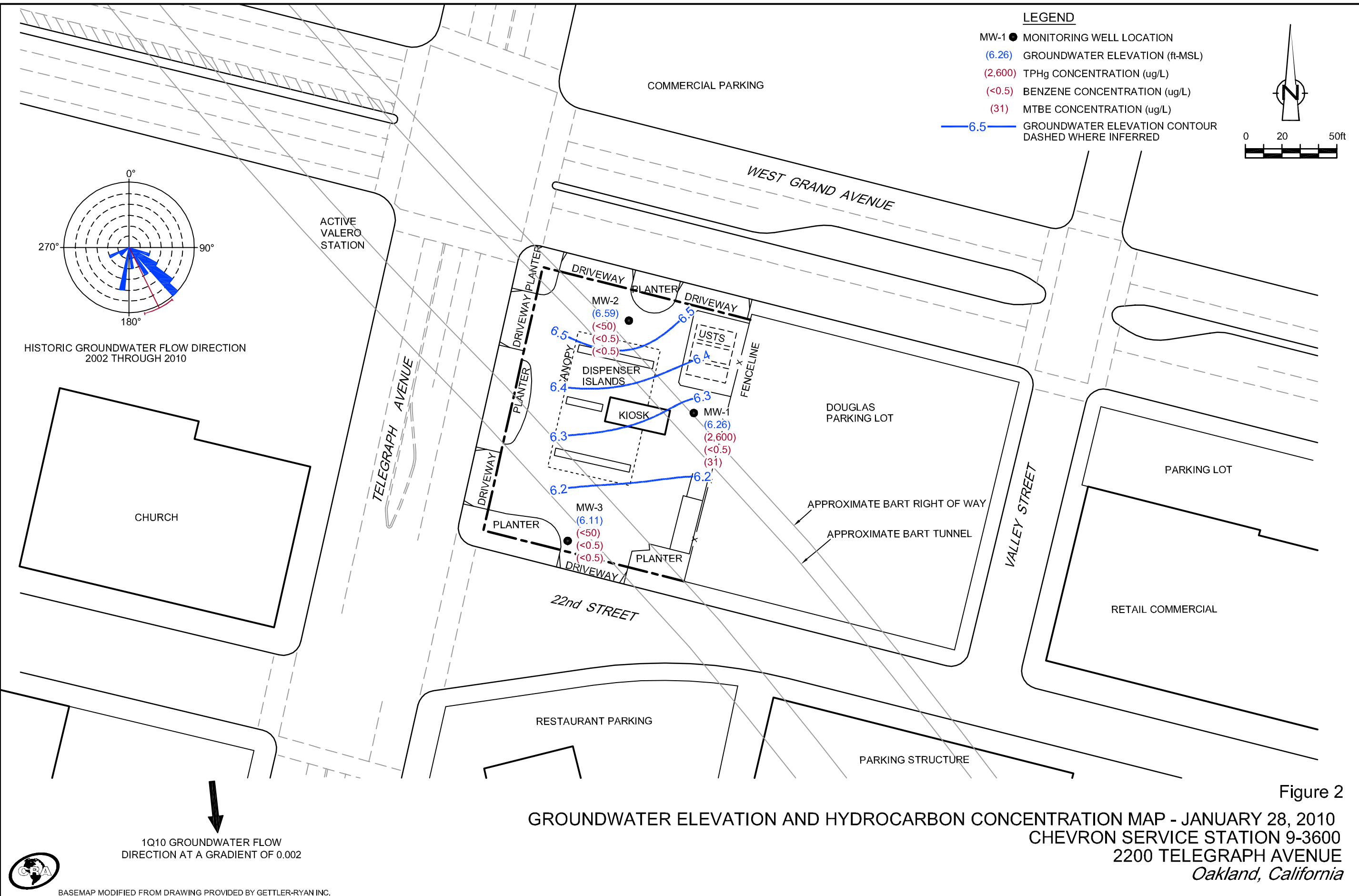
**Chevron Service Station 9-3600**  
2200 Telegraph Avenue  
Oakland, California



**CONESTOGA-ROVERS  
& ASSOCIATES**

**Vicinity Map**





BASEMAP MODIFIED FROM DRAWING PROVIDED BY GETTLER-RYAN INC.

311965-2010(006)GN-WA001 APR 30/2010

## TABLES

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**CHEVRON SERVICE STATION 9-3600**  
**2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA**

<i>WELL ID/ DATE</i>	<i>TOC* (ft.)</i>	<i>DTW (ft.)</i>	<i>GWE (ft.)</i>	<i>TPH-G (µg/L)</i>	<i>B (µg/L)</i>	<i>T (µg/L)</i>	<i>E (µg/L)</i>	<i>X (µg/L)</i>	<i>MTBE (µg/L)</i>
<b>MW-1</b>									
04/05/02 <sup>1</sup>	17.07	11.68	5.39	2,000	5.0	<1.0	14	8.4	310/370 <sup>2</sup>
07/01/02	17.07	12.01	5.06	2,000	8.9	<1.0	97	31	370/420 <sup>2</sup>
10/08/02	17.07	12.20	4.87	1,400	9.2	<10	75	20	440/360 <sup>2</sup>
01/11/03	17.07	11.13	5.94	1,600	7.1	0.51	53	13	280/270 <sup>2</sup>
04/01/03	17.07	11.53	5.54	1,800	5.2	0.6	25	9.1	210/210 <sup>2</sup>
07/01/03 <sup>3</sup>	17.07	11.95	5.12	2,000	4	<0.5	31	12	170
10/02/03 <sup>3</sup>	17.07	12.25	4.82	480	<5	<5	<5	<5	9,800
01/05/04 <sup>3</sup>	17.07	11.05	6.02	1,700	3	<0.5	27	4	140
04/05/04 <sup>3</sup>	17.07	11.63	5.44	1,500	2	<0.5	21	0.6	120
07/01/04 <sup>3</sup>	17.07	12.08	4.99	1,500	1	<0.5	3	<0.5	130
10/05/04 <sup>3</sup>	17.07	12.21	4.86	1,400	<0.5	<0.5	1	0.5	130
01/04/05 <sup>3</sup>	17.07	11.15	5.92	1,500	<0.5	<0.5	<0.5	<0.5	<0.5
04/14/05 <sup>3</sup>	17.07	11.20	5.87	2,100	<0.5	<0.5	4	0.5	61
07/08/05 <sup>3</sup>	17.07	11.38	5.69	1,800	<0.5	<0.5	0.8	<0.5	71
10/27/05 <sup>3</sup>	17.07	12.24	4.83	800	<0.5	<0.5	<0.5	<0.5	76
01/12/06 <sup>3</sup>	17.07	11.10	5.97	1,600	<0.5	<0.5	4	<0.5	47
04/13/06 <sup>3</sup>	17.07	10.81	6.26	1,500	<0.5	<0.5	1	<0.5	36
07/13/06 <sup>3</sup>	17.07	11.18	5.89	990	<0.5	<0.5	<0.5	<0.5	44
10/16/06 <sup>3</sup>	17.07	12.18	4.89	780	<0.5	<0.5	<0.5	<0.5	59
01/20/07 <sup>3</sup>	17.07	11.91	5.16	890	<0.5	<0.5	<0.5	<0.5	47
04/11/07 <sup>3</sup>	17.07	11.87	5.20	1,900	<0.5	<0.5	4	<0.5	39

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<i>WELL ID/ DATE</i>	<i>TOC* (ft.)</i>	<i>DTW (ft.)</i>	<i>GWE (ft.)</i>	<i>TPH-G (µg/L)</i>	<i>B (µg/L)</i>	<i>T (µg/L)</i>	<i>E (µg/L)</i>	<i>X (µg/L)</i>	<i>MTBE (µg/L)</i>
07/27/07 <sup>3</sup>	17.07	11.91	5.16	1,500	<0.5	<0.5	0.6	<0.5	56
10/22/07 <sup>3</sup>	17.07	-- <sup>4</sup>	--	610	<0.5	<0.5	<0.5	<0.5	65
11/26/07	17.07	11.96	5.11	--	--	--	--	--	--
01/21/08 <sup>3</sup>	17.07	11.78	5.29	1,100	<0.5	<0.5	0.8	<0.5	48
04/04/08 <sup>3</sup>	17.07	11.83	5.24	1,600	<0.5	<0.5	<0.5	<0.5	53
07/21/08 <sup>3</sup>	17.07	12.10	4.97	950	<0.5	<0.5	<0.5	<0.5	72
10/09/08 <sup>3</sup>	17.07	12.17	4.90	960	<0.5	<0.5	<0.5	<0.5	59
01/21/09 <sup>3</sup>	17.07	12.15	4.92	840	<0.5	<0.5	<0.5	<0.5	31
04/29/09 <sup>3</sup>	17.07	11.68	5.39	1,800	<0.5	<0.5	3	<0.5	25
07/23/09 <sup>3</sup>	17.07	11.85	5.22	1,900	<0.5	<0.5	<0.5	<0.5	30
<b>01/28/10<sup>3</sup></b>	<b>17.07</b>	<b>10.81</b>	<b>6.26</b>	<b>2,600</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>2</b>	<b>&lt;0.5</b>	<b>31</b>
<b>MW-2</b>									
04/05/02 <sup>1</sup>	16.82	11.17	5.65	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
07/01/02	16.82	11.36	5.46	<50	<0.50	0.57	0.52	<1.5	<2.5/<2 <sup>2</sup>
<b>MW-2 (cont)</b>									
10/08/02	16.82	11.57	5.25	<100	<2.0	<2.0	<2.0	<5.0	<10/<2 <sup>2</sup>
01/11/03	16.82	10.94	5.88	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
04/01/03	16.82	11.03	5.79	<50	<0.5	<0.5	<0.5	<1.5	<2.5/<0.5 <sup>2</sup>
07/01/03 <sup>3</sup>	16.82	11.30	5.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/02/03 <sup>3</sup>	16.82	11.63	5.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/05/04 <sup>3</sup>	16.82	10.82	6.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5

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<i>WELL ID/ DATE</i>	<i>TOC* (ft.)</i>	<i>DTW (ft.)</i>	<i>GWE (ft.)</i>	<i>TPH-G (µg/L)</i>	<i>B (µg/L)</i>	<i>T (µg/L)</i>	<i>E (µg/L)</i>	<i>X (µg/L)</i>	<i>MTBE (µg/L)</i>
04/05/04 <sup>3</sup>	16.82	11.21	5.61	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/01/04 <sup>3</sup>	16.82	11.46	5.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/05/04 <sup>3</sup>	16.82	11.57	5.25	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/04/05 <sup>3</sup>	16.82	10.87	5.95	<50	0.5	<0.5	8	0.9	87
04/14/05 <sup>3</sup>	16.82	10.72	6.10	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/08/05 <sup>3</sup>	16.82	11.16	5.66	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/27/05 <sup>3</sup>	16.82	11.59	5.23	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/12/06 <sup>3</sup>	16.82	10.68	6.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/13/06 <sup>3</sup>	16.82	10.37	6.45	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/13/06 <sup>3</sup>	16.82	10.68	6.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/16/06 <sup>3</sup>	16.82	11.48	5.34	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/20/07 <sup>3</sup>	16.82	11.27	5.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/11/07 <sup>3</sup>	16.82	11.20	5.62	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/27/07 <sup>3</sup>	16.82	11.27	5.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/22/07 <sup>3</sup>	16.82	-- <sup>4</sup>	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/26/07	16.82	11.31	5.51	--	--	--	--	--	--
01/21/08 <sup>3</sup>	16.82	11.08	5.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/04/08 <sup>3</sup>	16.82	11.12	5.70	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/21/08 <sup>3</sup>	16.82	11.56	5.26	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/09/08 <sup>3</sup>	16.82	11.73	5.09	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/21/09 <sup>3</sup>	16.82	11.55	5.27	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/29/09	16.82	11.06	5.76	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**CHEVRON SERVICE STATION 9-3600**  
**2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA**

<i>WELL ID/ DATE</i>	<i>TOC* (ft.)</i>	<i>DTW (ft.)</i>	<i>GWE (ft.)</i>	<i>TPH-G (µg/L)</i>	<i>B (µg/L)</i>	<i>T (µg/L)</i>	<i>E (µg/L)</i>	<i>X (µg/L)</i>	<i>MTBE (µg/L)</i>
07/23/09 <sup>3</sup>	16.82	11.30	5.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>01/28/10<sup>3</sup></b>	<b>16.82</b>	<b>10.23</b>	<b>6.59</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<b>MW-3</b>									
04/05/02 <sup>1</sup>	16.52	11.29	5.23	<50	<0.50	0.59	<0.50	<1.5	<2.5/<2 <sup>2</sup>
07/01/02	16.52	11.55	4.97	<50	<0.50	0.60	<0.50	<1.5	<2.5/<2 <sup>2</sup>
10/08/02	16.52	11.62	4.90	<100	<2.0	<2.0	<2.0	<5.0	<10/<2 <sup>2</sup>
01/11/03	16.52	11.09	5.43	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
<b>MW-3 (cont)</b>									
04/01/03	16.52	11.25	5.27	<50	<0.5	<0.5	<0.5	<1.5	<2.5/<0.5 <sup>2</sup>
07/01/03 <sup>3</sup>	16.52	11.42	5.10	<50	<0.5	<0.5	<0.5	<0.5	2
10/02/03 <sup>3</sup>	16.52	11.74	4.78	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/05/04 <sup>3</sup>	16.52	11.06	5.46	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/05/04 <sup>3</sup>	16.52	11.40	5.12	<50	<0.5	<0.5	<0.5	<0.5	0.6
07/01/04 <sup>3</sup>	16.52	11.58	4.94	<50	<0.5	<0.5	<0.5	<0.5	0.8
10/05/04 <sup>3</sup>	16.52	11.60	4.92	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/04/05 <sup>3</sup>	16.52	10.95	5.57	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/14/05 <sup>3</sup>	16.52	11.10	5.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/08/05 <sup>3</sup>	16.52	11.29	5.23	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/27/05 <sup>3</sup>	16.52	11.68	4.84	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/12/06 <sup>3</sup>	16.52	10.83	5.69	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/13/06 <sup>3</sup>	16.52	10.65	5.87	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**CHEVRON SERVICE STATION 9-3600**  
**2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA**

<i>WELL ID/ DATE</i>	<i>TOC* (ft.)</i>	<i>DTW (ft.)</i>	<i>GWE (ft.)</i>	<i>TPH-G (µg/L)</i>	<i>B (µg/L)</i>	<i>T (µg/L)</i>	<i>E (µg/L)</i>	<i>X (µg/L)</i>	<i>MTBE (µg/L)</i>
07/13/06 <sup>3</sup>	16.52	11.03	5.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/16/06 <sup>3</sup>	16.52	11.46	5.06	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/20/07 <sup>3</sup>	16.52	11.39	5.13	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/11/07 <sup>3</sup>	16.52	11.27	5.25	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/27/07 <sup>3</sup>	16.52	11.38	5.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/22/07 <sup>3</sup>	16.52	-- <sup>4</sup>	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/26/07	16.52	11.35	5.17	--	--	--	--	--	--
01/21/08 <sup>3</sup>	16.52	11.16	5.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/04/08 <sup>3</sup>	16.52	11.15	5.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/21/08 <sup>3</sup>	16.52	11.38	5.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/09/08 <sup>3</sup>	16.52	11.49	5.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/21/09 <sup>3</sup>	16.52	11.52	5.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/29/09 <sup>3</sup>	16.52	11.10	5.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/23/09 <sup>3</sup>	16.52	11.20	5.32	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>01/28/10<sup>3</sup></b>	<b>16.52</b>	<b>10.41</b>	<b>6.11</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<b>TRIP BLANK</b>									
<b>QA</b>									
04/05/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
07/01/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
10/08/02	--	--	--	<100	<2.0	<2.0	<2.0	<5.0	<10
01/11/03	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**CHEVRON SERVICE STATION 9-3600**  
**2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA**

<i>WELL ID/ DATE</i>	<i>TOC* (ft.)</i>	<i>DTW (ft.)</i>	<i>GWE (ft.)</i>	<i>TPH-G (µg/L)</i>	<i>B (µg/L)</i>	<i>T (µg/L)</i>	<i>E (µg/L)</i>	<i>X (µg/L)</i>	<i>MTBE (µg/L)</i>
04/01/03	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
<b>QA (cont)</b>									
07/01/03 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/02/03 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/05/04 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/05/04 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/01/04 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/05/04 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/04/05 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/14/05 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/08/05 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/27/05 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/12/06 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/13/06 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/13/06 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/16/06 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/20/07 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/11/07 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/27/07 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/22/07 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/21/08 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/04/08 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5



TABLE 1

**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS  
CHEVRON SERVICE STATION 9-3600  
2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA**

<i>WELL ID/ DATE</i>	<i>TOC* (ft.)</i>	<i>DTW (ft.)</i>	<i>GWE (ft.)</i>	<i>TPH-G (µg/L)</i>	<i>B (µg/L)</i>	<i>T (µg/L)</i>	<i>E (µg/L)</i>	<i>X (µg/L)</i>	<i>MTBE (µg/L)</i>
07/21/08 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/09/08 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/21/09 <sup>3</sup>	--	--	--	<50 <sup>5</sup>	<0.5	<0.5	<0.5	<0.5	<0.5
04/29/09 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/23/09 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>01/28/10<sup>3</sup></b>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5

TABLE 1

**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS  
CHEVRON SERVICE STATION 9-3600  
2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA**

<i>WELL ID/ DATE</i>	<i>TOC* (ft.)</i>	<i>DTW (ft.)</i>	<i>GWE (ft.)</i>	<i>TPH-G (µg/L)</i>	<i>B (µg/L)</i>	<i>T (µg/L)</i>	<i>E (µg/L)</i>	<i>X (µg/L)</i>	<i>MTBE (µg/L)</i>
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**EXPLANATIONS:**

TOC = Top of Casing

(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl Tertiary Butyl Ether

(µg/L) = Micrograms per liter

-- = Not Measured/Not Analyzed

QA = Quality Assurance/Trip Blank

\* TOC elevations were surveyed on April 17, 2002, by Morrow Surveying. The elevations are based on a City of Oakland Benchmark No. 37JC, (Benchmark Elevation = 17.68 Feet).

1 Well development performed.

2 MTBE by EPA Method 8260.

3 BTEX and MTBE by EPA Method 8260.

4 DTW measurements were not recorded correctly.

5 Laboratory report indicates the original analysis was performed on an instrument where the ending calibration standard failed the method criteria.

The sample was originally analyzed approximately 30 minutes after the LCS/LCSD. The LCS/LCSD showed good GRO recovery and the surrogate recovery for this sample was 85%.

The sample was reanalyzed from a vial with headspace since only 1 vial was submitted. The results for the original and the reanalysis were similar.

The reanalysis was reported.

TABLE 2

GROUNDWATER ANALYTICAL RESULTS - OXYGENATE COMPOUNDS  
 CHEVRON SERVICE STATION 9-3600  
 2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

<i>WELL ID</i>	<i>DATE</i>	<i>ETHANOL</i> ( $\mu\text{g/L}$ )	<i>TBA</i> ( $\mu\text{g/L}$ )	<i>MTBE</i> ( $\mu\text{g/L}$ )	<i>DIPE</i> ( $\mu\text{g/L}$ )	<i>ETBE</i> ( $\mu\text{g/L}$ )	<i>TAME</i> ( $\mu\text{g/L}$ )
MW-1	04/05/02	--	200	370	<2	<2	10
	07/01/02	--	190	420	<2	<2	9
	10/08/02	--	110	360	<2	<2	8
	01/11/03	--	<100	270	<2	<2	7
	04/01/03	--	22	210	<0.5	<0.5	5
	07/01/03	<50	26	170	<0.5	<0.5	5
	10/02/03	<500	2,600	9,800	<5	<5	6
	01/05/04	<50	21	140	<0.5	<0.5	3
	04/05/04	<50	17	120	<0.5	<0.5	3
	07/01/04	<50	13	130	<0.5	<0.5	2
	10/05/04	<50	14	130	<0.5	<0.5	2
	01/04/05	<50	<5	<0.5	<0.5	<0.5	<0.5
	04/14/05	<50	15	61	<0.5	<0.5	1
	07/08/05	<50	15	71	<0.5	<0.5	1
	10/27/05	<50	10	76	<0.5	<0.5	1
	01/12/06	<50	12	47	<0.5	<0.5	<0.5
	04/13/06	<50	8	36	<0.5	<0.5	0.6
	07/13/06	<50	7	44	<0.5	<0.5	0.7
	10/16/06	<50	6	59	<0.5	<0.5	1
	01/20/07	<50	8	47	<0.5	<0.5	0.8
04/11/07	<50	9	39	<0.5	<0.5	0.7	
07/27/07	<50	8	56	<0.5	<0.5	0.8	

TABLE 2

GROUNDWATER ANALYTICAL RESULTS - OXYGENATE COMPOUNDS  
 CHEVRON SERVICE STATION 9-3600  
 2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

<i>WELL ID</i>	<i>DATE</i>	<i>ETHANOL</i> ( $\mu\text{g/L}$ )	<i>TBA</i> ( $\mu\text{g/L}$ )	<i>MTBE</i> ( $\mu\text{g/L}$ )	<i>DIPE</i> ( $\mu\text{g/L}$ )	<i>ETBE</i> ( $\mu\text{g/L}$ )	<i>TAME</i> ( $\mu\text{g/L}$ )
<b>MW-1 (cont)</b>	10/22/07	<50	5	65	<0.5	<0.5	0.7
	01/21/08	<50	5	48	<0.5	<0.5	0.7
	04/04/08	<50	6	53	<0.5	<0.5	0.6
	07/21/08	<50	11	72	<0.5	<0.5	0.7
	10/09/08	<50	5	59	<0.5	<0.5	0.5
	01/21/09	<50	5	31	<0.5	<0.5	0.5
	04/29/09	<50	5	25	<0.5	<0.5	<0.5
	07/23/09	<50	4 J	30	<0.5	<0.5	<0.5
	<b>01/28/10</b>	<b>&lt;50</b>	<b>11</b>	<b>31</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<b>MW-2</b>	04/05/02	--	<100	<2	<2	<2	<2
	07/01/02	--	<100	<2	<2	<2	<2
	10/08/02	--	<100	<2	<2	<2	<2
	01/11/03	--	<100	<2	<2	<2	<2
	04/01/03	<50	<5	<0.5	<0.5	<0.5	<0.5
	07/01/03	<50	<5	<0.5	<0.5	<0.5	<0.5
	10/02/03	<50	<5	<0.5	<0.5	<0.5	<0.5
	01/05/04	<50	<5	<0.5	<0.5	<0.5	<0.5
	04/05/04	<50	<5	<0.5	<0.5	<0.5	<0.5
	07/01/04	<50	<5	<0.5	<0.5	<0.5	<0.5
	10/05/04	<50	<5	<0.5	<0.5	<0.5	<0.5
	01/04/05	<50	14	87	<0.5	<0.5	2

TABLE 2

GROUNDWATER ANALYTICAL RESULTS - OXYGENATE COMPOUNDS  
 CHEVRON SERVICE STATION 9-3600  
 2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

<i>WELL ID</i>	<i>DATE</i>	<i>ETHANOL</i> ( $\mu\text{g/L}$ )	<i>TBA</i> ( $\mu\text{g/L}$ )	<i>MTBE</i> ( $\mu\text{g/L}$ )	<i>DIPE</i> ( $\mu\text{g/L}$ )	<i>ETBE</i> ( $\mu\text{g/L}$ )	<i>TAME</i> ( $\mu\text{g/L}$ )
<b>MW-2 (cont)</b>	04/14/05	<50	<5	<0.5	<0.5	<0.5	<0.5
	07/08/05	<50	<5	<0.5	<0.5	<0.5	<0.5
	10/27/05	<50	<5	<0.5	<0.5	<0.5	<0.5
	01/12/06	<50	<5	<0.5	<0.5	<0.5	<0.5
	04/13/06	<50	<5	<0.5	<0.5	<0.5	<0.5
	07/13/06	<50	<5	<0.5	<0.5	<0.5	<0.5
	10/16/06	<50	<5	<0.5	<0.5	<0.5	<0.5
	01/20/07	<50	<2	<0.5	<0.5	<0.5	<0.5
	04/11/07	<50	<2	<0.5	<0.5	<0.5	<0.5
	07/25/07	<50	<2	<0.5	<0.5	<0.5	<0.5
	10/22/07	<50	<2	<0.5	<0.5	<0.5	<0.5
	01/21/08	<50	<2	<0.5	<0.5	<0.5	<0.5
	04/04/08	<50	<2	<0.5	<0.5	<0.5	<0.5
	07/21/08	<50	<2	<0.5	<0.5	<0.5	<0.5
	10/09/08	<50	<2	<0.5	<0.5	<0.5	<0.5
	01/21/09	<50	<2	<0.5	<0.5	<0.5	<0.5
	04/29/09	<50	<2	<0.5	<0.5	<0.5	<0.5
07/23/09	<50	<2	<0.5	<0.5	<0.5	<0.5	
<b>01/28/10</b>	<b>&lt;50</b>	<b>&lt;2</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	
<b>MW-3</b>	04/05/02	--	<100	<2	<2	<2	<2
	07/01/02	--	<100	<2	<2	<2	<2

TABLE 2

GROUNDWATER ANALYTICAL RESULTS - OXYGENATE COMPOUNDS  
 CHEVRON SERVICE STATION 9-3600  
 2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

<i>WELL ID</i>	<i>DATE</i>	<i>ETHANOL</i> ( $\mu\text{g/L}$ )	<i>TBA</i> ( $\mu\text{g/L}$ )	<i>MTBE</i> ( $\mu\text{g/L}$ )	<i>DIPE</i> ( $\mu\text{g/L}$ )	<i>ETBE</i> ( $\mu\text{g/L}$ )	<i>TAME</i> ( $\mu\text{g/L}$ )
<b>MW-3 (cont)</b>	10/08/02	--	<100	<2	<2	<2	<2
	01/11/03	--	<100	<2	<2	<2	<2
	04/01/03	--	<5	<0.5	<0.5	<0.5	<0.5
	07/01/03	<50	<5	2	<0.5	<0.5	<0.5
	10/02/03	<50	<5	<0.5	<0.5	<0.5	<0.5
	01/05/04	<50	<5	<0.5	<0.5	<0.5	<0.5
	04/05/04	<50	<5	0.6	<0.5	<0.5	<0.5
	07/01/04	<50	<5	0.8	<0.5	<0.5	<0.5
	10/05/04	<50	<5	<0.5	<0.5	<0.5	<0.5
	01/04/05	<50	<5	<0.5	<0.5	<0.5	<0.5
	04/14/05	<50	<5	<0.5	<0.5	<0.5	<0.5
	07/08/05	<50	<5	<0.5	<0.5	<0.5	<0.5
	10/27/05	<50	<5	<0.5	<0.5	<0.5	<0.5
	01/12/06	<50	<5	<0.5	<0.5	<0.5	<0.5
	04/13/06	<50	<5	<0.5	<0.5	<0.5	<0.5
	07/13/06	<50	<5	<0.5	<0.5	<0.5	<0.5
	10/16/06	<50	<5	<0.5	<0.5	<0.5	<0.5
	01/20/07	<50	<2	<0.5	<0.5	<0.5	<0.5
	04/11/07	<50	<2	<0.5	<0.5	<0.5	<0.5
	07/27/07	<50	<2	<0.5	<0.5	<0.5	<0.5
	10/22/07	<50	<2	<0.5	<0.5	<0.5	<0.5
	01/21/08	<50	<2	<0.5	<0.5	<0.5	<0.5

TABLE 2

GROUNDWATER ANALYTICAL RESULTS - OXYGENATE COMPOUNDS  
 CHEVRON SERVICE STATION 9-3600  
 2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

<i>WELL ID</i>	<i>DATE</i>	<i>ETHANOL</i> ( $\mu\text{g/L}$ )	<i>TBA</i> ( $\mu\text{g/L}$ )	<i>MTBE</i> ( $\mu\text{g/L}$ )	<i>DIPE</i> ( $\mu\text{g/L}$ )	<i>ETBE</i> ( $\mu\text{g/L}$ )	<i>TAME</i> ( $\mu\text{g/L}$ )
<b>MW-3 (cont)</b>	04/04/08	<50	<2	<0.5	<0.5	<0.5	<0.5
	07/21/08	<50	<2	<0.5	<0.5	<0.5	<0.5
	10/09/08	<50	<2	<0.5	<0.5	<0.5	<0.5
	01/21/09	<50	<2	<0.5	<0.5	<0.5	<0.5
	04/29/09	<50	<2	<0.5	<0.5	<0.5	<0.5
	07/23/09	<50	<2	<0.5	<0.5	<0.5	<0.5
	<b>01/28/10</b>	<b>&lt;50</b>	<b>&lt;2</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>

**EXPLANATIONS:**

TBA = t-Butyl alcohol

MTBE = Methyl Tertiary Butyl Ether

DIPE = di-Isopropyl ether

ETBE = Ethyl t-butyl ether

TAME = t-Amyl methyl ether

( $\mu\text{g/L}$ ) = Micrograms per liter

-- = Not Analyzed

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

ATTACHMENT A

Blaine Tech's January 29, 2010 *First Quarter 2010 Monitoring Report*





January 29, 2010

Chevron Environmental Management Company  
Aaron Costa  
6111 Bollinger Canyon Rd.  
San Ramon, CA 94583

First Quarter 2010 Monitoring at  
Chevron Service Station 93600  
2200 Telgraph Ave.  
Oakland, CA

Monitoring performed on January 28, 2010

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**Blaine Tech Services, Inc. Groundwater Monitoring Event 100128-DR2**

This submission covers the routine monitoring of groundwater wells conducted on January 28, 2010 at this location. Three monitoring wells were measured for depth to groundwater (DTW). Three monitoring wells were sampled. All sampling activities were performed in accordance with local, state and federal guidelines.

Water levels measurements were collected using an electronic slope indicator. All sampled wells were purged of three case volumes, depending on well recovery, or until water temperature, pH and conductivity stabilized. Purging was accomplished using electric submersible pumps, positive air-displacement pumps or stainless steel, Teflon or disposable bailers. Subsequent sample collection and sample handling was performed in accordance with EPA protocols using disposable bailers. Alternately, where applicable, wells were sampled utilizing no-purge methodology. All reused equipment was decontaminated in an integrated stainless steel sink with de-ionized water supplied Hotsy pressure washer and Liquinox or equivalent.

First Quarter Groundwater Monitoring at Chevron 93600, 2200 Telgraph Ave., Oakland, CA

SAN JOSE

SACRAMENTO

LOS ANGELES

SAN DIEGO

1680 ROGERS AVENUE

SAN JOSE, CA 95112-1105

(408) 573-0555

FAX (408) 573-7771

LIC. 746684

[www.blainetech.com](http://www.blainetech.com)

Samples were delivered under chain-of-custody to Lancaster Laboratories of Lancaster, Pennsylvania, for analysis. Monitoring well purgewater and equipment rinsate water was collected and transported under bill-of-lading to IWM facilities of San Jose, California.

Enclosed documentation from this event includes copies of the Well Gauging Sheet, Well Monitoring Data Sheets, and Chain-of-Custody.

Blaine Tech Services, Inc.'s activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrogeologic conditions or formulation of recommendations was performed.

Please call if you have any questions.

Sincerely,



Pete Cornish  
Blaine Tech Services, Inc.  
Project Manager

attachments: SOP  
Well Gauging Sheet  
Individual Well Monitoring Data Sheets  
Chain of Custody  
Wellhead Inspection Form  
Bill of Lading  
Calibration Log

cc: CRA  
Attn: Charlotte Evans  
5900 Hollis St. Suite A  
Emeryville, CA 94608

First Quarter Groundwater Monitoring at Chevron 93600, 2200 Telgraph Ave., Oakland, CA

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# BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS AT CHEVRON SITES

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

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## SAMPLING PROCEDURES OVERVIEW

### SAFETY

All groundwater monitoring assignments performed for Chevron comply with Chevron's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40-hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Chevron site.

### INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic water level indicators that are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of immiscibles. When free product is suspected, its presence is confirmed using an electronic interface probe (e.g. GeoTech). No samples are collected from a well containing over two-hundredths of a foot (0.02') of product.

### EVACUATION

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be

evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well.

## PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

## DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewateres and does not immediately recharge.

## MEASURING RECHARGE

Upon completion of well purging, a depth to water measurement is collected and notated to ensure that the well has recharged to within 80% of its static, pre-purge level prior to sampling.

Wells that do not immediately show 80% recharge or dewatered wells will be allowed approximately 2 hours to recharge prior to sampling or will be sampled at site departure. All wells requiring off-site traffic control in the public right-of-way, the 80% recharge rule may be disregarded in the interests of Health and Safety. The sample may be collected as soon as there is sufficient water. The water level at time of sampling will be noted.

## PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non-hazardous purgewater is transported under standard Bill of Lading documentation to a Blaine Tech Services, Inc. facility before being transported to a Chevron approved disposal facility.

## SAMPLE COLLECTION DEVICES

All samples are collected using disposable bailers.

## SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory that will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

## TRIP BLANKS

Trip Blanks, if requested, are taken to the site and kept inside the sample cooler for the duration of the event. They are turned over to the laboratory for analysis with the samples from that site.

## DUPLICATES

Duplicates, if requested, may be collected at a site. The Duplicate sample is collected, typically from the well containing the most measurable contaminants. The Duplicate sample is labeled the same as the original.

## SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the designated analytical laboratory. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

## DOCUMENTATION CONVENTIONS

A label must be affixed to all sample containers. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time and date of sample collection along with the initials of the person who collects the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

## DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer that is then operated with high quality deionized water that is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps and bailers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, water level indicator, etc.) that cannot be washed using the high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

## DISSOLVED OXYGEN READINGS

Dissolved Oxygen readings are taken pre- and/or post-purge using YSI meters (e.g. YSI Model 550) or HACH field test kits.

The YSI meters are able to collect accurate in-situ readings. The probe allows downhole measurements to be taken from wells with diameters as small as two inches. The probe and reel is decontaminated between wells as described above. The meter is calibrated between wells as per the instructions in the operating manual. The probe is lowered into the water column and the reading is allowed to stabilize prior to collection.

## OXYIDATON REDUCTION POTENTIAL READINGS

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual.

## FERROUS IRON MEASUREMENTS

All field measurements are collected at time of sampling with a HACH test kit.



## CHEVRON WELL MONITORING DATA SHEET

Project #: 100128-DR2	Station #: 9-3606
Sampler: IW	Date: 1/28/10
Weather: 60°F Clear	Ambient Air Temperature: 60°F
Well I.D.: MW-1	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth: 20.10	Depth to Water: 10.81
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.67	

Purge Method:  Bailer  Waterra  Disposable Bailer  Peristaltic  Extraction Pump  Electric Submersible  Other \_\_\_\_\_

Sampling Method:  Bailer  Disposable Bailer  Extraction Port  Dedicated Tubing  Other: \_\_\_\_\_

1.5 (Gals.) X 3 = 4.5 Gals.  
 1 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1448	66.3	7.51	923	486	1.5	ODOR
1453	66.5	7.50	919	569	3.0	"
1458	66.8	7.53	909	712	4.5	"

Did well dewater? Yes  No  Gallons actually evacuated: 4.5

Sampling Date: 1/28/10      Sampling Time: 1505      Depth to Water: 11.44

Sample I.D.: MW-1      Laboratory: Lancaster Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE OXYS Other: See LOC

Duplicate I.D.:      Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



## CHEVRON WELL MONITORING DATA SHEET

Project #: <u>100128-DA2</u>	Station #: <u>9-3600</u>
Sampler: <u>DA</u>	Date: <u>1/28/10</u>
Weather: <u>Clur</u>	Ambient Air Temperature: <u>60°F</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth: <u>20.07</u>	Depth to Water: <u>10.23</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>12.20</u>	

Purge Method:

- Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible

Sampling Method:

- Waterra  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other: \_\_\_\_\_

<u>1.6</u>	(Gals.) X	<u>3</u>	=	<u>4.8</u>	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1500	65.4	6.6	1110	217	1.6	
1502	65.6	6.6	1118	396	3.2	
1504	65.5	6.7	1121	502	4.8	

Did well dewater? Yes  No  Gallons actually evacuated: 4.8

Sampling Date: 1/28/10 Sampling Time: 1520 Depth to Water: 12.20

Sample I.D.: MW-2 Laboratory: Lancaster Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
	O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:

## CHEVRON WELL MONITORING DATA SHEET

Project #: 100128-D12	Station #: 9-3600
Sampler: DR	Date: 1/28/10
Weather: Clear	Ambient Air Temperature: 60°F
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth: 20.07	Depth to Water: 10.41
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (RVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.34	

Purge Method: Bailer Waterra X Disposable Bailer  
X Disposable Bailer Peristaltic Extraction Port  
Positive Air Displacement Extraction Pump Dedicated Tubing  
Electric Submersible Other \_\_\_\_\_ Other: \_\_\_\_\_

1.5 (Gals.) X	3	= 4.5 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
1426	69.6	6.8	840	396	1.5	cloudy
1429	69.4	6.7	843	>1000	3.0	"
1432	69.3	6.7	844	>1000	4.5	"

Did well dewater? Yes  No  Gallons actually evacuated: 4.5

Sampling Date: 1/28/10 Sampling Time: 1440 Depth to Water: 11.91

Sample I.D.: MW-3 Laboratory: Lancaster Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE OXYS Other: See CC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV





CHEVRON-NORTHERN CALIFORNIA TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING**

FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT CHEVRON FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY IWM TO THEIR FACILITY IN SAN JOSE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Ave. San Jose CA (408)573-0555). Blaine Tech Services, Inc. is authorized by CHEVRON PRODUCTS COMPANY (CHEVRON) to recover, collect, apportion into loads, and haul the Non-Hazardous Well Purgewater that is drawn from wells at the CHEVRON facility indicated below and to deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one Chevron facility to BTS; from one Chevron facility to BTS via another Chevron facility; or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of CHEVRON.

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

<u>9-3600</u>	<u>Aaron Costa</u>
CHEVRON #	Chevron Engineer
<u>2200 Telegraph Ave.</u>	<u>Oakland Ca.</u>
street number	street name city state

WELL I.D.	GALS.	WELL I.D.	GALS.
<u>Mw-1</u>	<u>4.5</u>	<u>/</u>	<u>/</u>
<u>Mw-2</u>	<u>4.8</u>	<u>/</u>	<u>/</u>
<u>Mw-3</u>	<u>4.5</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
added equip.		any other	
rinse water <u>5.0</u>		adjustments <u>/</u>	
<b>TOTAL GALS.</b>	<u>18.8</u>	loaded onto	
<b>RECOVERED</b>		BTS vehicle # <u>73</u>	
BTS event #	time	date	
<u>10028-Dr2</u>	<u>1530</u>	<u>1/28/10</u>	
signature	<u>[Signature]</u>		
*****			
REC'D AT	time	date	
<u>BTS-SJ</u>		<u>1/28/10</u>	
unloaded by			
signature	<u>[Signature]</u>		



ATTACHMENT B

Lancaster Laboratories' February 12, 2010 Analytical Report

## ANALYTICAL RESULTS

Prepared for:

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

925-842-8582

Prepared by:

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

February 12, 2010

Project: 93600

Samples arrived at the laboratory on Friday, January 29, 2010. The PO# for this group is 0015040460 and the release number is COSTA. The group number for this submittal is 1180611.

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
QA-T-100128 NA Water	5895288
MW-1-W-100128 NA Water	5895289
MW-2-W-100128 NA Water	5895290
MW-3-W-100128 NA Water	5895291

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

ELECTRONIC      Chevron c/o CRA  
COPY TO  
ELECTRONIC      CRA  
COPY TO

Attn: Report Contact

Attn: Charlotte Evans



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

Respectfully Submitted,



Martha L. Seidel  
Senior Chemist



# Analysis Report

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

**Sample Description:** QA-T-100128 NA Water  
Facility# 93600 BTST  
2200 Telegraph Ave-Oakland T0600161613 QA

LLI Sample # WW 5895288  
LLI Group # 1180611  
CA

**Project Name:** 93600

Collected: 01/28/2010 14:30

Account Number: 10991

Submitted: 01/29/2010 09:05

Chevron

Reported: 02/12/2010 at 12:53

6001 Bollinger Canyon Rd L4310

Discard: 03/15/2010

San Ramon CA 94583

TAOQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			ug/l	ug/l	ug/l	
06054	Benzene	71-43-2	N.D.	0.5	1	1
06054	Ethylbenzene	100-41-4	N.D.	0.5	1	1
06054	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
06054	Toluene	108-88-3	N.D.	0.5	1	1
06054	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
<b>GC Volatiles SW-846 8015B</b>			ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

### General Sample Comments

State of California Lab Certification No. 2501

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
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	P100401AA	02/09/2010 12:32	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P100401AA	02/09/2010 12:32	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10033A94A	02/02/2010 20:23	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10033A94A	02/02/2010 20:23	Marie D John	1

\*=This limit was used in the evaluation of the final result



# Analysis Report

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

**Sample Description:** MW-1-W-100128 NA Water  
Facility# 93600 BTST  
2200 Telegraph Ave-Oakland T0600161613 MW-1

LLI Sample # WW 5895289  
LLI Group # 1180611  
CA

**Project Name:** 93600

Collected: 01/28/2010 15:05 by DR

Account Number: 10991

Submitted: 01/29/2010 09:05  
Reported: 02/12/2010 at 12:53  
Discard: 03/15/2010

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

TAO01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			ug/l	ug/l	ug/l	
06059	t-Amyl methyl ether	994-05-8	N.D.	0.5	1	1
06059	Benzene	71-43-2	N.D.	0.5	1	1
06059	t-Butyl alcohol	75-65-0	11	2	5	1
06059	Ethanol	64-17-5	N.D.	50	250	1
06059	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1	1
06059	Ethylbenzene	100-41-4	2	0.5	1	1
06059	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
06059	Methyl Tertiary Butyl Ether	1634-04-4	31	0.5	1	1
06059	Toluene	108-88-3	N.D.	0.5	1	1
06059	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
<b>GC Volatiles SW-846 8015B</b>			ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	2,600	50	100	1

### General Sample Comments

State of California Lab Certification No. 2501

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
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	D100401AA	02/09/2010 22:23	Florida A Cimino	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D100401AA	02/09/2010 22:23	Florida A Cimino	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10033A94A	02/02/2010 23:32	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10033A94A	02/02/2010 23:32	Marie D John	1

\*=This limit was used in the evaluation of the final result

**Sample Description: MW-2-W-100128 NA Water**  
**Facility# 93600 BTST**  
**2200 Telegraph Ave-Oakland T0600161613 MW-2**

**LLI Sample # WW 5895290**  
**LLI Group # 1180611**  
**CA**

**Project Name: 93600**

Collected: 01/28/2010 15:20 by DR

Account Number: 10991

Submitted: 01/29/2010 09:05

Chevron

Reported: 02/12/2010 at 12:53

6001 Bollinger Canyon Rd L4310

Discard: 03/15/2010

San Ramon CA 94583

TAO02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			ug/l	ug/l	ug/l	
06059	t-Amyl methyl ether	994-05-8	N.D.	0.5	1	1
06059	Benzene	71-43-2	N.D.	0.5	1	1
06059	t-Butyl alcohol	75-65-0	N.D.	2	5	1
06059	Ethanol	64-17-5	N.D.	50	250	1
06059	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1	1
06059	Ethylbenzene	100-41-4	N.D.	0.5	1	1
06059	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
06059	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
06059	Toluene	108-88-3	N.D.	0.5	1	1
06059	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
<b>GC Volatiles SW-846 8015B</b>			ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

### General Sample Comments

State of California Lab Certification No. 2501

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
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	D100401AA	02/09/2010 21:14	Florida A Cimino	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D100401AA	02/09/2010 21:14	Florida A Cimino	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10033A94A	02/02/2010 23:59	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10033A94A	02/02/2010 23:59	Marie D John	1



# Analysis Report

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

**Sample Description:** MW-3-W-100128 NA Water  
Facility# 93600 BTST  
2200 Telegraph Ave-Oakland T0600161613 MW-3

LLI Sample # WW 5895291  
LLI Group # 1180611  
CA

**Project Name:** 93600

Collected: 01/28/2010 14:40 by DR

Account Number: 10991

Submitted: 01/29/2010 09:05  
Reported: 02/12/2010 at 12:53  
Discard: 03/15/2010

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

TAO03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			ug/l	ug/l	ug/l	
06059	t-Amyl methyl ether	994-05-8	N.D.	0.5	1	1
06059	Benzene	71-43-2	N.D.	0.5	1	1
06059	t-Butyl alcohol	75-65-0	N.D.	2	5	1
06059	Ethanol	64-17-5	N.D.	50	250	1
06059	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1	1
06059	Ethylbenzene	100-41-4	N.D.	0.5	1	1
06059	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
06059	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
06059	Toluene	108-88-3	N.D.	0.5	1	1
06059	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
<b>GC Volatiles SW-846 8015B</b>			ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

### General Sample Comments

State of California Lab Certification No. 2501

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
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	D100401AA	02/09/2010 22:46	Florida A Cimino	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D100401AA	02/09/2010 22:46	Florida A Cimino	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10033A94A	02/03/2010 00:26	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10033A94A	02/03/2010 00:26	Marie D John	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

 Client Name: Chevron  
 Reported: 02/12/10 at 12:53 PM

Group Number: 1180611

Matrix QC may not be reported if 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.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</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: D100401AA	Sample number(s): 5895289-5895291								
t-Amyl methyl ether	N.D.	0.5	1	ug/l	89		77-120		
Benzene	N.D.	0.5	1	ug/l	89		79-120		
t-Butyl alcohol	N.D.	2.	5	ug/l	88		73-120		
Ethanol	N.D.	50.	250	ug/l	78		40-158		
Ethyl t-butyl ether	N.D.	0.5	1	ug/l	91		76-120		
Ethylbenzene	N.D.	0.5	1	ug/l	90		79-120		
di-Isopropyl ether	N.D.	0.5	1	ug/l	89		71-124		
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	88		76-120		
Toluene	N.D.	0.5	1	ug/l	88		79-120		
Xylene (Total)	N.D.	0.5	1	ug/l	92		80-120		
Batch number: P100401AA	Sample number(s): 5895288								
Benzene	N.D.	0.5	1	ug/l	102	101	79-120	1	30
Ethylbenzene	N.D.	0.5	1	ug/l	93	93	79-120	1	30
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	103	102	76-120	1	30
Toluene	N.D.	0.5	1	ug/l	98	99	79-120	1	30
Xylene (Total)	N.D.	0.5	1	ug/l	97	97	80-120	1	30
Batch number: 10033A94A	Sample number(s): 5895288-5895291								
TPH-GRO N. CA water C6-C12	N.D.	50.	100	ug/l	109	109	75-135	0	30

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: D100401AA	Sample number(s): 5895289-5895291 UNSPK: 5895290								
t-Amyl methyl ether	98	93	75-122	5	30				
Benzene	107	100	80-126	7	30				
t-Butyl alcohol	90	87	67-119	3	30				
Ethanol	124	123	37-164	1	30				
Ethyl t-butyl ether	104	99	74-122	5	30				
Ethylbenzene	109	102	71-134	6	30				
di-Isopropyl ether	107	102	70-129	4	30				
Methyl Tertiary Butyl Ether	103	96	72-126	8	30				
Toluene	110	103	80-125	6	30				
Xylene (Total)	111	103	79-125	8	30				
Batch number: P100401AA	Sample number(s): 5895288 UNSPK: P895169								
Benzene	111		80-126						

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (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: 02/12/10 at 12:53 PM

Group Number: 1180611

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Ethylbenzene	103		71-134						
Methyl Tertiary Butyl Ether	110		72-126						
Toluene	109		80-125						
Xylene (Total)	107		79-125						

 Batch number: 10033A94A      Sample number(s): 5895288-5895291 UNSPK: P895284  
 TPH-GRO N. CA water C6-C12      109      63-154

### 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: BTEX+5 Oxygenates+ETOH

Batch number: D100401AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5895289	98	93	99	103
5895290	99	94	100	99
5895291	98	93	98	98
Blank	98	90	100	100
LCS	97	91	98	100
MS	98	94	103	102
MSD	99	96	102	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX+MTBE by 8260B

Batch number: P100401AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5895288	92	91	89	86
Blank	92	88	89	85
LCS	91	93	88	86
LCSD	92	92	89	86
MS	91	92	88	87
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 10033A94A

Trifluorotoluene-F

5895288	84
5895289	99
5895290	84
5895291	84
Blank	84
LCS	95
LCSD	96

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

- (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: 02/12/10 at 12:53 PM

Group Number: 1180611

### Surrogate Quality Control

MS 93

---

Limits: 63-135

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

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



acct# 10991 Cup# 1180611

012810-13

CHAIN OF CUSTODY FORM Sample # 5895258-91

Chevron Environmental Management Company ■ 6111 Bollinger Canyon Rd. ■ Sah Ramon, CA 94583 COC 1 of 1

Chevron Site Number: 93600  
 Chevron Site Global ID: T0600161613  
 Chevron Site Address: 2200 Telegraph Ave., Oakland, CA  
 Chevron PM: AARON COSTA  
 Chevron PM Phone No.: (925)543-2961  
 Retail and Terminal Business Unit (RTBU) Job  
 Construction/Retail Job

Chevron Consultant: CRA  
 Address: 5900 Hollis St. Suite A Emeryville,  
 CA Consultant Contact: Charlotte Evans  
 Consultant Phone No. 510-420-3351  
 Consultant Project No. 100128-DR2  
 Sampling Company: Blaine Tech Services  
 Sampled By (Print): D. Raymond / J. Williams  
 Sampler Signature: [Signature]

ANALYSES REQUIRED												
11	11								11	11	Preservation Codes	
<input checked="" type="checkbox"/> HVOCC	<input type="checkbox"/> HVOCC	<input type="checkbox"/> OXYGENATES	<input type="checkbox"/> HC SCREEN	<input type="checkbox"/> DRO	<input type="checkbox"/> ORO	<input type="checkbox"/> TLC	<input type="checkbox"/> STLC	<input type="checkbox"/> EPA 310.1 ALKALINITY	<input type="checkbox"/> EPA 413.1 OIL & GREASE		H = HCL T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	
<input checked="" type="checkbox"/> MTBEX	<input checked="" type="checkbox"/> GRO	<input type="checkbox"/> MTBE	<input type="checkbox"/> EPA 8021B BTEX	<input type="checkbox"/> EPA 6010 Ca, Fe, K, Mg, Mn, Na	<input type="checkbox"/> EPA 6010/7000 TITLE 22 METALS	<input type="checkbox"/> EPA 150.1 PH	<input type="checkbox"/> SM2510B SPECIFIC CONDUCTIVITY	<input type="checkbox"/> EPA 418.1 TRPH	<input type="checkbox"/> EPA 8260 ETHANOL	<input type="checkbox"/> EPA 8015 TPH-D		Special Instructions Must meet lowest detection limits possible for 8260 Compounds
<input type="checkbox"/> EPA 8260B/GC/MS	<input type="checkbox"/> TPH-G	<input type="checkbox"/> BTEX	<input type="checkbox"/> EPA 8015B	<input type="checkbox"/> EPA 8021B BTEX	<input type="checkbox"/> EPA 6010 Ca, Fe, K, Mg, Mn, Na	<input type="checkbox"/> EPA 6010/7000 TITLE 22 METALS	<input type="checkbox"/> EPA 150.1 PH	<input type="checkbox"/> SM2510B SPECIFIC CONDUCTIVITY	<input type="checkbox"/> EPA 418.1 TRPH	<input type="checkbox"/> EPA 8260 ETHANOL	<input type="checkbox"/> EPA 8015 TPH-D	

Charge Code: NWRTB-0093600-0-OML  
 NWRTB 00SITE NUMBER-0- WBS  
**(WBS ELEMENTS:**  
 SITE ASSESSMENT: A1L REMEDIATION IMPLEMENTATION: R5L  
 SITE MONITORING: OML OPERATION MAINTENANCE & MONITORING: M1L  
**THIS IS A LEGAL DOCUMENT. ALL FIELDS MUST BE FILLED OUT CORRECTLY AND COMPLETELY.**

**Lancaster Laboratories**  
 Lancaster, PA  
 Lab Contact: Jill Parker  
 2425 New Holland Pike,  
 Lancaster, PA 17601  
 Phone No:  
 (717)656-2300

Other Lab  
 Temp. Blank Check Time Temp.  
1400 0°C  
1500 0°C

SAMPLE ID				Sample Time	# of Containers	Container Type	ANALYSES REQUIRED												Notes/Comments
Field Point Name	Matrix	Top Depth	Date (yyymmdd)				EPA 8260B/GC/MS	TPH-G	BTEX	EPA 8015B	EPA 8021B BTEX	EPA 6010 Ca, Fe, K, Mg, Mn, Na	EPA 6010/7000 TITLE 22 METALS	EPA 150.1 PH	SM2510B SPECIFIC CONDUCTIVITY	EPA 418.1 TRPH	EPA 8260 ETHANOL	EPA 8015 TPH-D	
<u>QA</u>	<u>PLANT</u>		<u>100128</u>	<u>1430</u>	<u>2</u>	<u>1126 UOAS</u>											<u>X</u>		
<u>MW-1</u>	<u>W</u>		<u>↓</u>	<u>1505</u>	<u>6</u>	<u>↓</u>	<u>X</u>	<u>X</u>									<u>X</u>		
<u>MW-2</u>	<u>W</u>		<u>↓</u>	<u>1520</u>	<u>6</u>	<u>↓</u>	<u>X</u>	<u>X</u>									<u>X</u>		
<u>MW-3</u>	<u>W</u>		<u>↓</u>	<u>1440</u>	<u>6</u>	<u>↓</u>	<u>X</u>	<u>X</u>									<u>X</u>		

Analyses per Pete Cornish.  
 Jmp 2/1/10

Relinquished By <u>Dre</u>	Company <u>BTS</u>	Date/Time <u>1/26/10 1515</u>	Relinquished To <u>[Signature]</u>	Company <u>LLI</u>	Date/Time <u>1/28/10 1530</u>	Turnaround Time: Standard <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 72 Hours Other <input type="checkbox"/>
Relinquished By <u>[Signature]</u>	Company <u>LLI</u>	Date/Time <u>1/28/10 1607</u>	Relinquished To <u>[Signature]</u>	Company <u>LLI</u>	Date/Time <u>1/29/10 0908</u>	

## Lancaster Laboratories Explanation of Symbols and Abbreviations

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

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>Cal</b>	(diet) calories	<b>lb.</b>	pound(s)
<b>meq</b>	milliequivalents	<b>kg</b>	kilogram(s)
<b>g</b>	gram(s)	<b>mg</b>	milligram(s)
<b>ug</b>	microgram(s)	<b>l</b>	liter(s)
<b>ml</b>	milliliter(s)	<b>ul</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>fib &gt;5 um/ml</b>	fibers greater than 5 microns in length per ml
<b>&lt;</b>	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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.		

U.S. EPA data qualifiers:

### Organic Qualifiers

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

### Inorganic Qualifiers

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

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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