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By Alameda County Environmental Health at 4:29 pm, Jan 30, 2014

**Carryl MacLeod**  
Project Manager  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
6101 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 790-6506  
cmacleod@chevron.com

January 28, 2014

Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: Former Texaco Service Station 307233  
2259 First Street  
Livermore, California  
ACEHS Case RO0002908

I accept the Fourth Quarter 2013 Groundwater Monitoring and Sampling Report.

I agree with the conclusions and recommendations presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This Third Quarter 2013 Groundwater Monitoring and Sampling 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 blue ink that reads "Carryl MacLeod".

Carryl MacLeod  
Project Manager

Attachment: Fourth Quarter 2013 Groundwater Monitoring and Sampling Report



**CONESTOGA-ROVERS  
& ASSOCIATES**

10969 Trade Center Drive  
Rancho Cordova, California 95670  
Telephone: (916) 889-8900 Fax: (916) 889-8999  
<http://www.craworld.com>

January 28, 2014

Reference No. 312264

Mr. Jerry Wickham  
Alameda County Environmental Health Services (ACEHS)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: Fourth Quarter 2013  
Groundwater Monitoring and Sampling Report  
Former Texaco Service Station 307233  
2259 First Street  
Livermore, California  
ACEHS Case RO0002908

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Dear Mr. Wickham:

Conestoga-Rovers & Associates (CRA) is submitting this *Fourth Quarter 2013 Groundwater Monitoring and Sampling Report* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (Chevron). Groundwater monitoring and sampling was performed by Gettler-Ryan Inc. (G-R) of Dublin, California and their *Groundwater Monitoring and Sampling Data Package* is included as Attachment A. Current and historical groundwater monitoring and sampling data are presented in Table 1 and current data are shown on Figure 2. Eurofins Lancaster Laboratories Environmental, LLCs' *Analytical Results* report is included as Attachment B.

### **RESULTS OF FOURTH QUARTER 2013 EVENT**

On December 9, 2013, G-R monitored and sampled the site wells per the established schedule.

Results of the current monitoring event indicate the following:

- |  |                           |
|--|---------------------------|
| • Shallow Groundwater Flow Direction   | Southwest                 |
| • Shallow Hydraulic Gradient           | 0.4                       |
| • Deep Groundwater Flow Direction      | Monitored Semi-annually   |
| • Deep Hydraulic Gradient              | Monitored Semi-annually   |
| • Approximate Depth to Water - Shallow | 25 to 35 feet below grade |

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Equal  
Employment Opportunity  
Employer

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Results of the current sampling event are presented below in Table A:

<b>TABLE A: GROUNDWATER ANALYTICAL DATA</b>						
<i>Well ID</i>	<i>TPHd*</i> ( $\mu\text{g/L}$ )	<i>TPHg</i> ( $\mu\text{g/L}$ )	<i>Benzene</i> ( $\mu\text{g/L}$ )	<i>Toluene</i> ( $\mu\text{g/L}$ )	<i>Ethylbenzene</i> ( $\mu\text{g/L}$ )	<i>Total Xylenes</i> ( $\mu\text{g/L}$ )
<i>ESLs</i>	<b>100</b>	<b>100</b>	<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>
MW-1	Sampled Semi-Annually					
MW-2						
MW-3						
MW-4						
MW-5						
MW-6						
MW-7	<b>94,000/82,000*</b>	<b>17,000</b>	<b>2,600</b>	22	<b>400</b>	<b>220</b>
MW-8	<b>19,000/13,000*</b>	<b>6,800</b>	1	0.7	3	0.9
MW-9	<50/<50*	<50	<0.5	<0.5	<0.5	<0.5
MW-10	<b>5,100/3,400*</b>	<b>6,500</b>	0.8	2	<b>49</b>	17
MW-11	<b>220/&lt;50*</b>	100	<0.5	<0.5	<0.5	<0.5
MW-12	<b>670/260*</b>	<b>2,500</b>	<b>19</b>	3	2	1
ESL San Francisco Bay Region-Regional Water Quality Control Board, (RWQCB), 2008, <i>Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater</i> , Interim final, May 2013, Table F-1a. NA Not Analyzed * Analyzed without and with 10 gram silica gel cleanup Concentrations in <b>BOLD</b> exceed ESLs						

## CONCLUSIONS AND RECOMMENDATIONS

The results of ongoing groundwater monitoring and sampling at the site indicate the following:

- TPHd, TPHg, and to a lesser extent, benzene are the primary constituents of concern at the site.
- The highest dissolved concentrations detected in shallow zone wells this quarter were in MW-7, MW-8, and MW-10 in the vicinity of the former USTs.
- Post-land application sulfate levels in shallow zone wells ranged from <1,500  $\mu\text{g/L}$  (MW-8) to 118,000  $\mu\text{g/L}$  (MW-9).

As the newly installed wells (MW-10 through MW-12) have been sampled for a minimum of four quarters, the sampling frequency will be reduced to semi-annual starting with the first



**CONESTOGA-ROVERS  
& ASSOCIATES**

January 28, 2014

Reference No. 312264

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quarter 2014 unless otherwise notified by ACEH. CRA recommends continuing semi-annual monitoring and sampling to evaluate concentration trends over time.

### **ANTICIPATED FUTURE ACTIVITIES**

#### ***Groundwater Monitoring***

G-R will monitor and sample site wells per the established schedule. CRA will submit a groundwater monitoring and sampling report.



**CONESTOGA-ROVERS  
& ASSOCIATES**

January 28, 2014

Reference No. 312264

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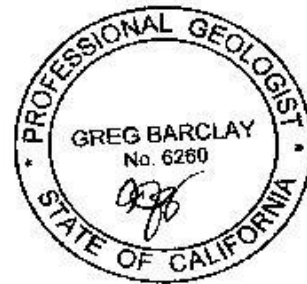
Please contact Brian Silva at (916) 889-8908 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Brian Silva

Greg Barclay, PG 6260



BS/cw/30  
Encl.

Figure 1	Vicinity Map
Figure 2	Shallow Zone Groundwater Elevation Contour and Hydrocarbon Concentration Map
Table 1	Groundwater Monitoring and Sampling Data
Attachment A	Monitoring Data Package
Attachment B	Laboratory Analytical Report

cc: Ms. Carryl MacLeod, Chevron (*electronic copy*)  
Mr. Eric Uranaga, City of Livermore Community Development

## FIGURES



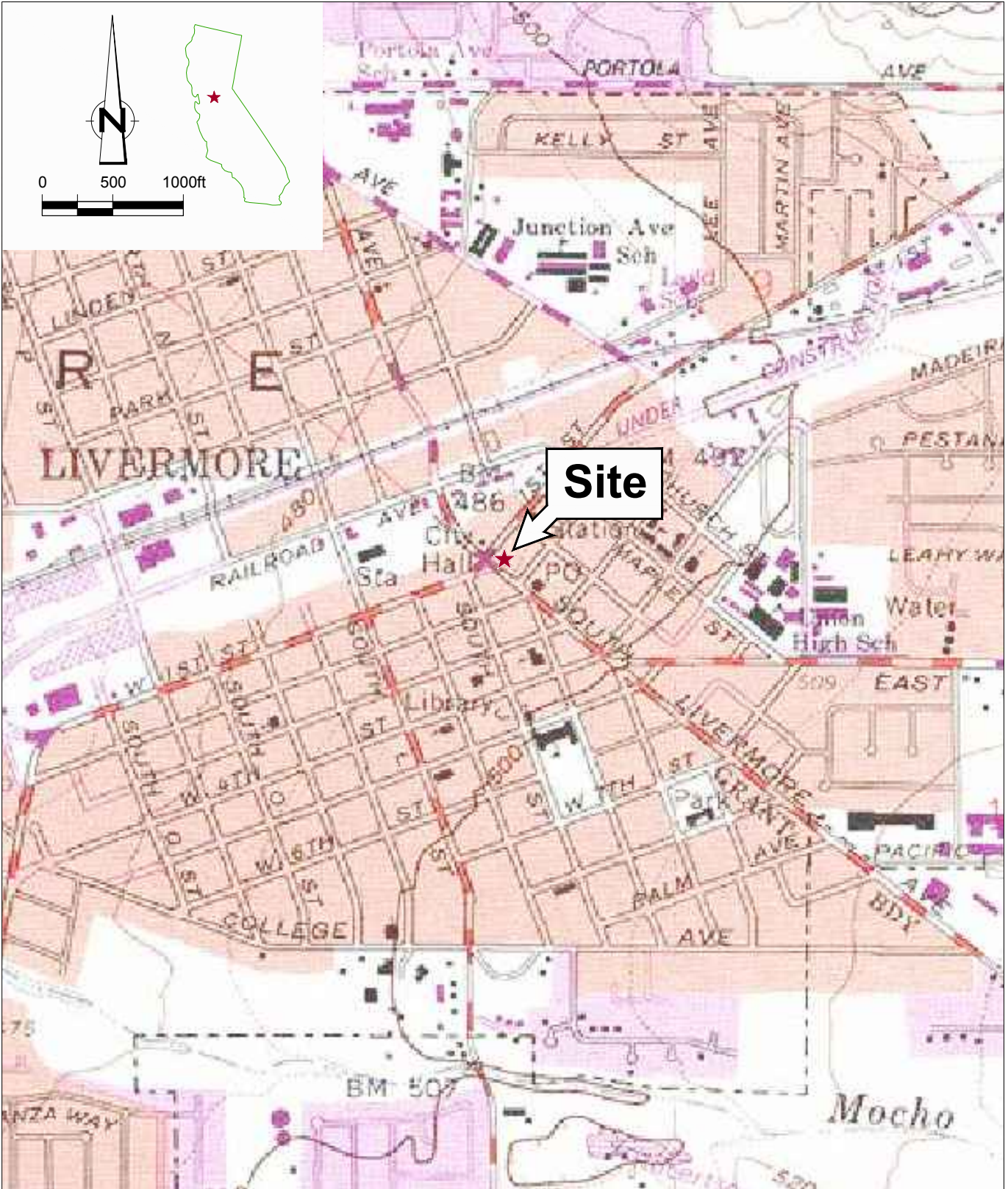


Figure 1  
 VICINITY MAP  
 FORMER TEXACO STATION (CHEVRON SITE 307233)  
 2259 FIRST STREET  
 Livermore, California



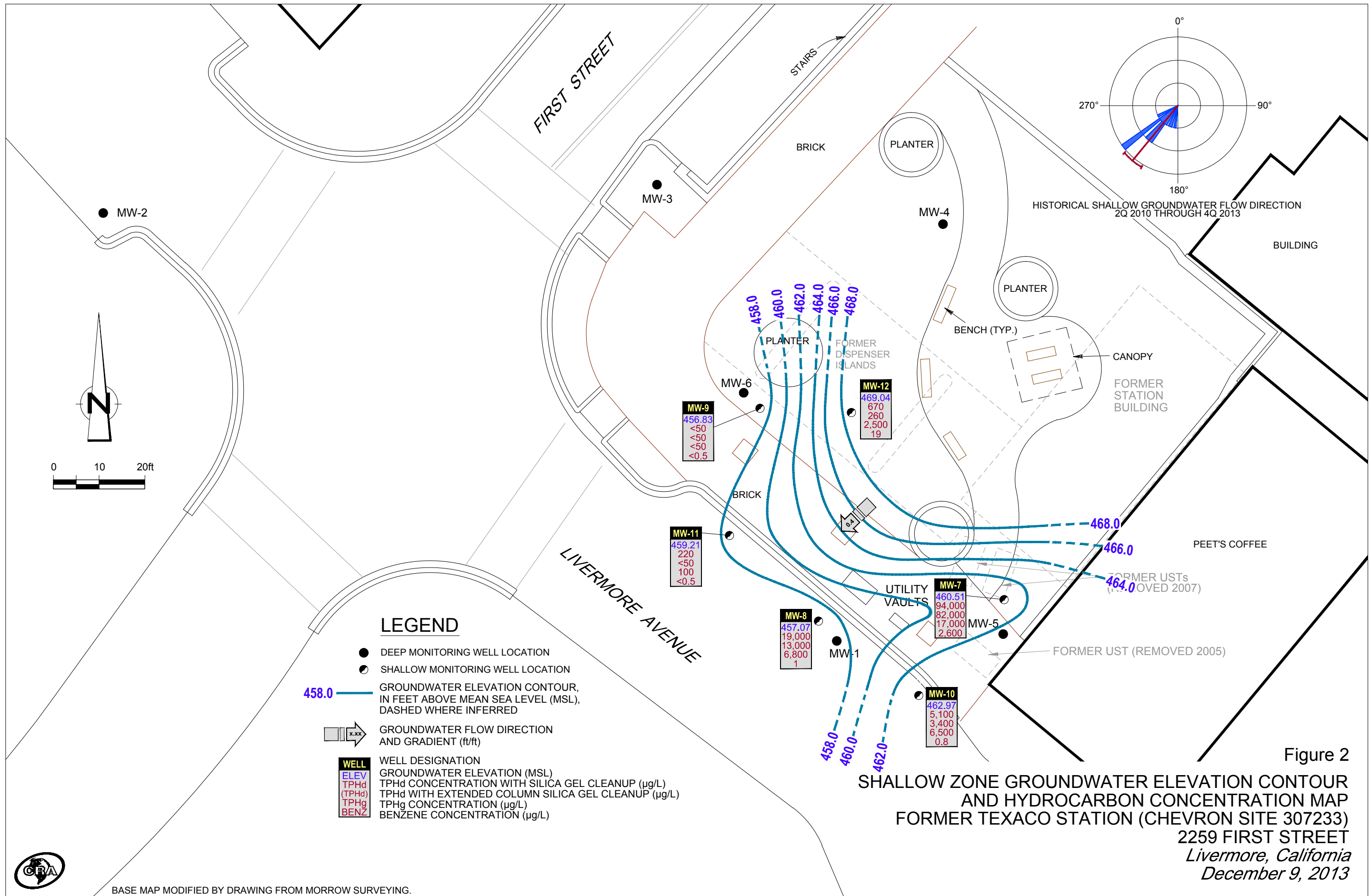


Figure 2  
**SHALLOW ZONE GROUNDWATER ELEVATION CONTOUR  
 AND HYDROCARBON CONCENTRATION MAP**  
 FORMER TEXACO STATION (CHEVRON SITE 307233)  
 2259 FIRST STREET  
 Livermore, California  
 December 9, 2013



BASE MAP MODIFIED BY DRAWING FROM MORROW SURVEYING.



## TABLE

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 FORMER CHEVRON SERVICE STATION 307233  
 2259 FIRST STREET  
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY								
							I TPH-DRO	I TPH-DRO w/ Si Gel	I TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO <sub>3</sub> )	Alkalinity, phenolphthalein	Methane	Calcium	
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	05/25/2010 <sup>1</sup>	490.86	30.62	460.24	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	05/27/2010	490.86	30.65	460.21	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	09/13/2010	490.86	36.49	454.37	0.00	0.00	51	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	12/20/2010	490.86	32.24	458.62	0.00	0.00	-	79	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	03/07/2011	490.86	27.86	463.00	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	6,900	73,600	-	<10	-	-	-	-	-
MW-1	06/06/2011	490.86	27.10	463.76	0.00	0.00	-	220	<50	<0.5	<0.5	<0.5	<0.5	7,000	71,000	-	<10	-	-	-	-	-
MW-1	09/19/2011	490.86	31.26	459.60	0.00	0.00	-	450/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	03/09/2012 <sup>7</sup>	490.86	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	03/12/2012 <sup>4</sup>	490.86	41.35	449.51	0.00	0.00	-	<50/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	06/04/2012 <sup>7</sup>	490.86	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	09/10/2012 <sup>4</sup>	490.86	40.67	450.19	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	12/10/2012 <sup>7</sup>	490.86	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	03/04/2013 <sup>4</sup>	490.86	30.35	460.51	0.00	0.00	-	170 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	06/03/2013 <sup>7</sup>	490.86	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	09/09/2013 <sup>4</sup>	490.86	34.08	456.78	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
<b>MW-1</b>	<b>12/09/2013<sup>7</sup></b>	<b>490.86</b>	<b>-</b>	<b>-</b>	<b>0.00</b>	<b>0.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
MW-2	05/25/2010 <sup>1</sup>	489.43	31.18	458.25	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	05/27/2010	489.43	31.11	458.32	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	09/13/2010	489.43	36.96	452.47	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	12/20/2010	489.43	32.62	456.81	0.00	0.00	-	52	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	03/07/2011	489.43	28.26	461.17	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	3,600	45,900	-	20	-	-	-	-	-
MW-2	06/06/2011	489.43	27.73	461.70	0.00	0.00	-	220	<50	<0.5	<0.5	<0.5	<0.5	2,900	43,600	-	<10	-	-	-	-	-
MW-2	09/19/2011	489.43	31.92	457.51	0.00	0.00	-	230/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	03/09/2012 <sup>7</sup>	489.43	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/12/2012 <sup>4</sup>	489.43	41.84	447.59	0.00	0.00	-	<50/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 FORMER CHEVRON SERVICE STATION 307233  
 2259 FIRST STREET  
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCs				GENERAL CHEMISTRY								
							I TPH-DRO	I TPH-DRO w/ Si Gel	I TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO <sub>3</sub> )	Alkalinity, phenolphthalein	Methane	Calcium	
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-2	06/04/2012 <sup>7</sup>	489.43	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/10/2012 <sup>4</sup>	489.43	41.32	448.11	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	12/10/2012 <sup>7</sup>	489.43	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/04/2013 <sup>4</sup>	489.43	30.91	458.52	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	06/03/2013 <sup>7</sup>	489.43	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/09/2013 <sup>4</sup>	489.43	34.76	454.67	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
<b>MW-2</b>	<b>12/09/2013<sup>7</sup></b>	<b>489.43</b>	-	-	<b>0.00</b>	<b>0.00</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	05/25/2010 <sup>1</sup>	490.38	30.17	460.21	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	05/27/2010	490.38	30.98	459.40	0.00	0.00	610	-	2,100	2	<0.5	<0.5	0.9	-	-	-	-	-	-	-	-	-
MW-3	09/13/2010	490.38	36.77	453.61	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-3	12/20/2010	490.38	32.41	457.97	0.00	0.00	-	97	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-3	03/07/2011	490.38	28.06	462.32	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	4,300	70,400	-	53	-	-	-	-	-
MW-3	06/06/2011	490.38	27.28	463.10	0.00	0.00	-	110	<50	<0.5	<0.5	<0.5	<0.5	3,900	66,400	-	17	-	-	-	-	-
MW-3	09/19/2011	490.38	31.21	459.17	0.00	0.00	-	170/230	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-3	03/09/2012 <sup>7</sup>	490.38	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	03/12/2012 <sup>4</sup>	490.38	41.66	448.72	0.00	0.00	-	<50/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-3	06/04/2012 <sup>7</sup>	490.38	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	09/10/2012 <sup>4</sup>	490.38	41.02	449.36	0.00	0.00	-	<50 / <50	<50	<5	<5	<5	<5	-	-	-	-	-	-	-	-	-
MW-3	12/10/2012 <sup>7</sup>	490.38	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	03/04/2013 <sup>4</sup>	490.38	30.58	459.80	0.00	0.00	-	360 / 240	1,500	150	3	2	3	-	-	-	-	-	-	-	-	-
MW-3	06/03/2013 <sup>7</sup>	490.38	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	09/09/2013 <sup>4</sup>	490.38	34.38	456.00	0.00	0.00	-	250 / 170	910	50	1	0.7	2	-	-	-	-	-	-	-	-	-
<b>MW-3</b>	<b>12/09/2013<sup>7</sup></b>	<b>490.38</b>	-	-	<b>0.00</b>	<b>0.00</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	05/25/2010 <sup>1</sup>	492.27	32.21	460.06	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	05/27/2010	492.27	32.26	460.01	0.00	0.00	230	-	1,800	1	<0.5	<0.5	0.7	-	-	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 FORMER CHEVRON SERVICE STATION 307233  
 2259 FIRST STREET  
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY									
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO <sub>3</sub> )	Alkalinity, phenolphthalein	Methane	Calcium		
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
MW-4	09/13/2010	492.27	38.14	454.13	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-4	12/20/2010	492.27	33.80	458.47	0.00	0.00	-	180	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-4	03/07/2011	492.27	29.42	462.85	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	7,900	72,300	-	15	-	-	-	-	-	-
MW-4	06/06/2011	492.27	28.52	463.75	0.00	0.00	-	87	<50	<0.5	<0.5	<0.5	<0.5	7,500	67,700	-	<10	-	-	-	-	-	-
MW-4	09/19/2011	492.27	32.78	459.49	0.00	0.00	-	330/140	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-4	03/09/2012 <sup>7</sup>	492.27	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	03/12/2012 <sup>4</sup>	492.27	42.99	449.28	0.00	0.00	-	130/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-4	06/04/2012 <sup>7</sup>	492.27	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	09/10/2012 <sup>4</sup>	492.27	42.30	449.97	0.00	0.00	-	580 / 310	2,400	2	0.7	2	2	-	-	-	-	-	-	-	-	-	-
MW-4	12/10/2012 <sup>7</sup>	492.27	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	03/04/2013 <sup>4</sup>	492.27	31.89	460.38	0.00	0.00	-	170 / 100	350	<0.5	<0.5	0.6	<0.5	-	-	-	-	-	-	-	-	-	-
MW-4	06/03/2013 <sup>7</sup>	492.27	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	09/09/2013 <sup>4</sup>	492.27	35.67	456.60	0.00	0.00	-	76 / 65	190	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
<b>MW-4</b>	<b>12/09/2013<sup>7</sup></b>	<b>492.27</b>	<b>-</b>	<b>-</b>	<b>0.00</b>	<b>0.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
MW-5	05/25/2010 <sup>1</sup>	491.99	31.39	460.60	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	05/27/2010	491.99	31.42	460.57	0.00	0.00	120	-	420	2	<0.5	<0.5	1	-	-	-	-	-	-	-	-	-	-
MW-5	09/13/2010	491.99	37.25	454.74	0.00	0.00	700	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-5	12/20/2010	491.99	33.01	458.98	0.00	0.00	-	74	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-5	03/07/2011	491.99	28.60	463.39	0.00	0.00	-	93	<50	<0.5	<0.5	<0.5	<0.5	7,900	70,100	-	23	-	-	-	-	-	-
MW-5	06/06/2011	491.99	27.71	464.28	0.00	0.00	-	<50	18,000	1,500	45	450	1,700	<250	2,700	-	11	-	-	-	-	-	-
MW-5	06/22/2011 <sup>2</sup>	491.99	28.90	463.09	0.00	0.00	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-5	09/19/2011	491.99	31.94	460.05	0.00	0.00	-	240/410	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-5	03/09/2012 <sup>7</sup>	491.99	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	03/12/2012 <sup>4</sup>	491.99	42.15	449.84	0.00	0.00	-	95/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-5	06/4/2012 <sup>7</sup>	491.99	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	09/10/2012 <sup>4</sup>	491.99	41.39	450.60	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 FORMER CHEVRON SERVICE STATION 307233  
 2259 FIRST STREET  
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY								
							I TPH-DRO	I TPH-DRO w/ Si Gel	I TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO <sub>3</sub> )	Alkalinity, phenolphthalein	Methane	Calcium	
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-5	12/10/2012 <sup>7</sup>	491.99	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	03/04/2013 <sup>4</sup>	491.99	31.07	460.92	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-5	06/03/2013 <sup>7</sup>	491.99	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	09/09/2013 <sup>4</sup>	491.99	34.79	457.20	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
<b>MW-5</b>	<b>12/09/2013<sup>7</sup></b>	<b>491.99</b>	-	-	<b>0.00</b>	<b>0.00</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	05/25/2010 <sup>1</sup>	491.52	31.63	459.89	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	05/27/2010	491.52	31.79	459.73	0.00	0.00	1,000	-	3,700	4	<0.5	<0.5	1	-	-	-	-	-	-	-	-	-
MW-6	09/13/2010	491.52	37.64	453.88	0.00	0.00	68	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-6	12/20/2010	491.52	33.32	458.20	0.00	0.00	-	140	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-6	03/07/2011	491.52	28.96	462.56	0.00	0.00	-	63	<50	<0.5	<0.5	<0.5	<0.5	360	55,400	-	33	-	-	-	-	-
MW-6	06/06/2011	491.52	28.08	463.44	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	5,300	54,000	-	<10	-	-	-	-	-
MW-6	09/19/2011	491.52	32.38	459.14	0.00	0.00	-	<50/380	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-6	03/09/2012 <sup>7</sup>	491.52	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	03/12/2012 <sup>4</sup>	491.52	42.50	449.02	0.00	0.00	-	54/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-6	06/4/2012 <sup>7</sup>	491.52	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	09/10/2012 <sup>4</sup>	491.52	41.82	449.70	0.00	0.00	-	86/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-6	12/10/2012 <sup>7</sup>	491.52	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	03/04/2013 <sup>4</sup>	491.52	31.45	460.07	0.00	0.00	-	210 / 160	210	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-6	06/03/2013 <sup>7</sup>	491.52	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	09/09/2013 <sup>4</sup>	491.52	35.22	456.30	0.00	0.00	-	120 / 66	110	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
<b>MW-6</b>	<b>12/09/2013<sup>7</sup></b>	<b>491.52</b>	-	-	<b>0.00</b>	<b>0.00</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	05/25/2010 <sup>1</sup>	492.29	28.69	463.60	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	05/27/2010	492.29	28.61	463.68	0.00	0.00	2,800	-	14,000	1,800	35	320	660	-	-	-	-	-	-	-	-	-
MW-7	09/13/2010	492.29	31.75	460.54	0.00	0.00	40,000	-	16,000	1,700	33	460	600	-	-	-	-	-	-	-	-	-
MW-7	12/20/2010	492.29	27.96	464.33	0.00	0.00	-	6,200	15,000	2,800	59	450	530	-	-	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 FORMER CHEVRON SERVICE STATION 307233  
 2259 FIRST STREET  
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY									
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO <sub>3</sub> )	Alkalinity, phenolphthalein	Methane	Calcium		
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-7	03/07/2011	492.29	24.98	467.31	0.00	0.00	-	55,000	16,000	1,500	50	470	2,100	<250	2,600	-	2,800	-	-	-	-	-	-
MW-7	06/06/2011	492.29	24.12	468.17	0.00	0.00	-	24,000	<50	<0.5	<0.5	<0.5	<0.5	8,000	70,300	-	4,300	-	-	-	-	-	-
MW-7	06/22/2011 <sup>2</sup>	492.29	26.71	465.58	0.00	0.00	-	-	19,000	1,800	47	490	2,200	-	-	-	-	-	-	-	-	-	-
MW-7	09/19/2011 <sup>3</sup>	492.29	28.85	463.44	0.12	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	03/09/2012	492.29	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	03/12/2012 <sup>5</sup>	492.29	32.38	459.91	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	06/04/2012 <sup>5,6</sup>	492.29	32.38	459.91	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	09/10/2012 <sup>5,9</sup>	492.29	32.62	459.67	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	12/10/2012 <sup>4,9</sup>	492.29	28.77	463.52	0.00	0.00	-	180,000 / 150,000	21,000	2,300	47	400	550	-	250,000	<54	6,000	573,000	-	-	12,000	179,000	-
MW-7	03/04/2013 <sup>4,9</sup>	492.29	29.63	462.66	0.00	0.00	-	46,000 / 34,000	18,000	1,900	26	370	390	-	221,000	880	6,300	679,000	-	-	16,000	127,000	-
MW-7	06/03/2013 <sup>9</sup>	492.29	31.13	461.16	0.00	0.00	-	-	21,000	1,900	23	310	250	-	159,000	-	-	-	-	-	9,500	-	-
MW-7	09/09/2013 <sup>5,9</sup>	492.29	32.38	459.91	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-7</b>	<b>12/09/2013<sup>4,8,9</sup></b>	<b>492.29</b>	<b>31.78</b>	<b>460.51</b>	<b>0.00</b>	<b>0.00</b>	-	<b>94,000 / 82,000</b>	<b>17,000</b>	<b>2,600</b>	<b>22</b>	<b>400</b>	<b>220</b>	-	-	-	-	-	-	-	-	-	-
MW-8	05/25/2010 <sup>1</sup>	490.89	30.62	460.27	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	05/27/2010	490.89	30.78	460.11	0.00	0.00	750	-	3,100	36	3	<0.5	2	-	-	-	-	-	-	-	-	-	-
MW-8	09/13/2010	490.89	36.55	454.34	0.00	0.00	590	-	3,400	5	2	<0.5	1	-	-	-	-	-	-	-	-	-	-
MW-8	12/20/2010	490.89	31.60	459.29	0.00	0.00	-	750	4,000	0.8	0.7	19	3	-	-	-	-	-	-	-	-	-	-
MW-8	03/07/2011	490.89	28.20	462.69	0.00	0.00	-	1,300	2,800	0.9	0.7	12	2	<250	7,000	-	820	-	-	-	-	-	-
MW-8	06/06/2011	490.89	27.38	463.51	0.00	0.00	-	4,300	3,100	0.9	0.7	5	1	<250	2,400	-	2,000	-	-	-	-	-	-
MW-8	09/19/2011	490.89	31.81	459.08	0.00	0.00	-	6,800/720	4,600	1	0.8	0.5	0.8	-	-	-	-	-	-	-	-	-	-
MW-8	03/09/2012	490.89	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	03/12/2012 <sup>5</sup>	490.89	38.48	452.41	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	06/04/2012 <sup>4,8</sup>	490.89	37.66	453.23	0.00	0.00	-	73,000/68,000	5,700	1	0.8	2	3	-	<1,500	<54	27,100	259,000	<700	2,000	31,200	-	-
MW-8	9/10/2012 <sup>5</sup>	490.89	38.73	452.16	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	12/10/2012 <sup>4</sup>	490.89	31.64	459.25	0.00	0.00	-	4,200 / 3,400	5,600	<3	<3	11	<3	-	<1,500	130	1,600	220,000	-	-	2,600	18,900	-
MW-8	03/04/2013 <sup>4</sup>	490.89	30.85	460.04	0.00	0.00	-	9,400 / 6,300	4,700	<3	<3	<3	<3	-	<1,500	150	2,500	223,000	-	-	2,700	22,100	-



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 FORMER CHEVRON SERVICE STATION 307233  
 2259 FIRST STREET  
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY								
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO <sub>3</sub> )	Alkalinity, phenolphthalein	Methane	Calcium	
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-8	06/03/2013 <sup>4</sup>	490.89	33.60	457.29	0.00	0.00	-	1,700 / 1,600	5,000	17	0.9	<0.5	1	-	3,000	<54	5,100	301,000	-	2,500	36,400	
MW-8	09/09/2013 <sup>4</sup>	490.89	34.73	456.16	0.00	0.00	-	21,000 / 15,000	3,900	3	0.6	<0.5	0.6	-	<1,500	<54	7,100	305,000	-	1,000	34,700	
<b>MW-8</b>	<b>12/09/2013<sup>4</sup></b>	<b>490.89</b>	<b>33.82</b>	<b>457.07</b>	<b>0.00</b>	<b>0.00</b>	-	<b>19,000 / 13,000</b>	<b>6,800</b>	<b>1</b>	<b>0.7</b>	<b>3</b>	<b>0.9</b>	-	<b>&lt;1,500</b>	<b>220</b>	<b>3,200</b>	<b>219,000</b>	-	<b>2,400</b>	<b>22,000</b>	
MW-9	05/25/2010 <sup>1</sup>	491.64	29.23	462.41	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-9	05/27/2010	491.64	28.96	462.68	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-9	09/13/2010	491.64	31.85	459.79	0.00	0.00	30,000	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-9	12/20/2010	491.64	28.95	462.69	0.00	0.00	-	56	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-9	03/07/2011	491.64	25.67	465.97	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	<250	172,000	-	48	-	-	-	-	-
MW-9	06/06/2011	491.64	24.67	466.97	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	<250	228,000	-	<10	-	-	-	-	-
MW-9	09/19/2011	491.64	29.46	462.18	0.00	0.00	-	250 / <50*	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-9	03/09/2012 <sup>7</sup>	491.64	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-9	03/12/2012 <sup>4</sup>	491.64	34.27	457.37	0.00	0.00	-	<50 / <50*	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-9	06/04/2012 <sup>7</sup>	491.64	35.80	455.84	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-9	9/10/2012 <sup>4</sup>	491.64	36.53	455.11	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-9	12/10/2012 <sup>10</sup>	491.64	32.80	458.84	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-9	03/04/2013 <sup>4</sup>	491.64	29.67	461.97	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	135,000	<54	520	342,000	-	15	176,000	
MW-9	06/03/2013 <sup>4</sup>	491.64	31.30	460.34	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	127,000	<54	100	306,000	-	7.9	128,000	
MW-9	09/09/2013 <sup>4</sup>	491.64	35.55	456.09	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	133,000	<54	84	321,000	-	<3.0	74,300	
<b>MW-9</b>	<b>12/09/2013<sup>4</sup></b>	<b>491.64</b>	<b>34.81</b>	<b>456.83</b>	<b>0.00</b>	<b>0.00</b>	-	<b>&lt;50 / &lt;50</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>118,000</b>	<b>&lt;54</b>	<b>&lt;10</b>	<b>299,000</b>	-	<b>&lt;3.0</b>	<b>61,800</b>	
MW-10	03/09/2012 <sup>1</sup>	491.15	28.00	463.15	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-10	03/12/2012 <sup>4</sup>	491.15	28.11	463.04	0.00	0.00	-	440/260	3,100	<1	<1	36	16	-	-	-	-	-	-	-	-	-
MW-10	06/04/2012 <sup>4</sup>	491.15	29.49	461.66	0.00	0.00	-	750/640	3,300	0.7	1	36	12	-	-	-	-	-	-	-	-	-
MW-10	09/10/2012 <sup>5</sup>	491.15	32.10	459.05	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-10	12/10/2012 <sup>4</sup>	491.15	26.03	465.12	0.00	0.00	-	240 / 200	950	<0.5	<0.5	2	2	-	-	-	-	-	-	-	-	-
MW-10	03/04/2013 <sup>4</sup>	491.15	27.55	463.60	0.00	0.00	-	8,300 / 6,100	1,900	<0.5	<0.5	9	4	-	5,800	110	3,600	273,000	-	2,100	27,400	

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 FORMER CHEVRON SERVICE STATION 307233  
 2259 FIRST STREET  
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY							
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO <sub>3</sub> )	Alkalinity, phenolphthalein	Methane	Calcium
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-10	06/03/2013 <sup>4</sup>	491.15	28.79	462.36	0.00	0.00	-	4,700 / 5,300	4,200	0.9	1	32	15	-	<1,500	<54	9,400	252,000	-	5,200	36,700
MW-10	09/09/2013 <sup>5</sup>	491.15	31.88	459.27	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-10</b>	<b>12/09/2013<sup>4</sup></b>	<b>491.15</b>	<b>28.18</b>	<b>462.97</b>	<b>0.00</b>	<b>0.00</b>	-	<b>5,100 / 3,400</b>	<b>6,500</b>	<b>0.8</b>	<b>2</b>	<b>49</b>	<b>17</b>	-	<b>6,000</b>	<b>180</b>	<b>2,900</b>	<b>255,000</b>	-	<b>2,500</b>	<b>24,800</b>
MW-11	03/09/2012 <sup>1</sup>	490.59	31.48	459.11	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	03/12/2012 <sup>4</sup>	490.59	33.35	457.24	0.00	0.00	-	160 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
MW-11	06/04/2012 <sup>5</sup>	490.59	34.22	456.37	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	09/10/2012 <sup>5</sup>	490.59	34.48	456.11	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	12/10/2012 <sup>4</sup>	490.59	32.50	458.09	0.00	0.00	-	55 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
MW-11	03/04/2013 <sup>4</sup>	490.59	28.11	462.48	0.00	0.00	-	<50 / <50	<50	<0.5	<0.5	<0.5	<0.5	-	59,600	<54	800	259,000	-	6.9	38,500
MW-11	06/03/2013 <sup>4</sup>	490.59	31.53	459.06	0.00	0.00	-	690 / 200	<50	<0.5	<0.5	<0.5	<0.5	-	54,400	<54	670	-	-	490	-
MW-11	09/09/2013 <sup>5</sup>	490.59	34.13	456.46	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-11</b>	<b>12/09/2013<sup>4</sup></b>	<b>490.59</b>	<b>31.38</b>	<b>459.21</b>	<b>0.00</b>	<b>0.00</b>	-	<b>220 / &lt;50</b>	<b>100</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-	<b>72,100</b>	<b>&lt;54</b>	<b>230</b>	<b>284,000</b>	-	<b>210</b>	<b>43,900</b>
MW-12	03/09/2012 <sup>1</sup>	493.72	25.43	468.29	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	03/12/2012 <sup>4</sup>	493.72	26.97	466.75	0.00	0.00	-	1,100 / 310	3,000	10	1	19	38	-	-	-	-	-	-	-	-
MW-12	06/04/2012 <sup>4</sup>	493.72	26.54	467.18	0.00	0.00	-	990 / 510	4,200	15	2	12	23	-	-	-	-	-	-	-	-
MW-12	09/10/2012 <sup>4</sup>	493.72	28.80	464.92	0.00	0.00	-	1,000 / 290	2,500	30	2	2	2	-	-	-	-	-	-	-	-
MW-12	12/10/2012 <sup>4</sup>	493.72	25.36	468.36	0.00	0.00	-	840 / 330	2,500	10	<3	<3	<3	-	-	-	-	-	-	-	-
MW-12	03/04/2013 <sup>4</sup>	493.72	25.61	468.11	0.00	0.00	-	1,800 / 590	3,200	26	2	20	16	-	19,400	<54	4,700	559,000	-	1,100	80,300
MW-12	06/03/2013 <sup>4</sup>	493.72	29.50	464.22	0.00	0.00	-	450 / 260	3,000	12	0.8	9	6	-	14,700	<54	3,300	534,000	-	460	73,800
MW-12	09/09/2013 <sup>4</sup>	493.72	27.32	466.40	0.00	0.00	-	720 / 280	3,300	33	2	19	14	-	9,500	<54	4,500	559,000	-	960	69,200
<b>MW-12</b>	<b>12/09/2013<sup>4</sup></b>	<b>493.72</b>	<b>24.68</b>	<b>469.04</b>	<b>0.00</b>	<b>0.00</b>	-	<b>670 / 260</b>	<b>2,500</b>	<b>19</b>	<b>3</b>	<b>2</b>	<b>1</b>	-	<b>14,900</b>	<b>&lt;54</b>	<b>880</b>	<b>577,000</b>	-	<b>890</b>	<b>70,800</b>
QA	05/27/2010	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
QA	09/13/2010	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
QA	12/20/2010	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-

**GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER CHEVRON SERVICE STATION 307233  
2259 FIRST STREET  
LIVERMORE, CALIFORNIA**

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY									
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO3)	Alkalinity, phenolphthalein	Methane	Calcium		
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
QA	03/07/2011	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
QA	06/06/2011	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
QA	06/22/2011	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
QA	09/19/2011	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
QA	03/12/2012	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
QA	06/03/2013	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
QA	09/09/2013	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
QA	12/09/2013	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-

**Abbreviations and Notes:**

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

(ft-amsl) = Feet above mean sea level

TOC elevations were surveyed on April 19, 2010 by Morrow Surveying. Vertical datum is NAVD 88 from GPS observations

ft = Feet

µg/L = Micrograms per liter

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCS = Volatile organic compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes (Total)

-- = Not available / not applicable

<x = Not detected at or above laboratory method detection limit

1 Well development performed.

**GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER CHEVRON SERVICE STATION 307233  
2259 FIRST STREET  
LIVERMORE, CALIFORNIA**

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY								
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO3)	Alkalinity, phenolphthalein	Methane	Calcium	
Units		ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

- 2 Second quarter 2011 resampling event because MW-5 and MW-7 bottles for TPHg and BTEX analysis were switched during the original 6/6/2011 sampling event.
- 3 Monitored only due to the presence of NAPL.
- 4 Silica Gel Cleanup / 10 gram Column Silica Gel Cleanup with Capric Acid Reverse Surrogate.
- 5 Insufficient water to sample.
- 6 Sulfate canister in well
- 7 Monitoring and sampled during the first and third quartes only
- 8 Insufficient water for purging, so a grab-groundwater samples was collected
- 9 Skimmer in well
- 10 Monitored only

ATTACHMENT A

MONITORING DATA PACKAGE



# GETTLER-RYAN INC.



## TRANSMITTAL

December 23, 2013  
G-R #385876

TO: Mr. Brian Silva  
Conestoga-Rovers & Associates  
10969 Trade Center Drive, Suite 107  
Rancho Cordova, California 95670

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

RE: **Former Chevron Service Station  
#307233  
2259 First Street  
Livermore, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Fourth Quarter Event of December 9, 2013

### 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/9-0271



# WELL CONDITION STATUS SHEET

Client/  
Facility #: **Chevron #307233**

Site Address: **2259 First Street**

City: **Livermore, CA**

Job #: **385876**

Event Date: **12-9-13**

Sampler: **FT**

WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/ <input checked="" type="radio"/>	REPLACE CAP Y/ <input checked="" type="radio"/>	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/ <input checked="" type="radio"/>
MW-7	OK		→				→				
MW-8	OK		→				→			Moumser 6" / 2	
MW-9	OK		→				→			Emco 12" / 2	
MW-10	OK		→				→			Moumser 6" / 2	
MW-11	OK		→				→			8" Box (UNKNOWN)	
MW-12	OK		→	B=1	OK		→			" "	
										Moumser 8" / 2	

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 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.

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.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876  
 Site Address: 2259 First Street Event Date: 12.9.13 (inclusive)  
 City: Livermore, CA Sampler: FT

Well ID: MW-7 Date Monitored: 12.9.13  
 Well Diameter: 2  
 Total Depth: 32.73 ft.  
 Depth to Water: 31.78 ft.  Check if water column is less than 0.50 ft.  
.95 x VF        =        x3 case volume = Estimated Purge Volume:        gal.

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

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

**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:       

Start Time (purge):        Weather Conditions: Sunny  
 Sample Time/Date: 1425 / 12.9.13 Water Color: Clear Odor: DI N STNAL  
 Approx. Flow Rate:        gpm. Sediment Description: S. SILTY  
 Did well de-water?  If yes, Time:        Volume:        gal. DTW @ Sampling: 31.78

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

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	1 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	x 250ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

COMMENTS: TOOK NO DUBLE SAMPLES TO ATTAIN A SAMPLE FROM WELL. WELL HAS HISTORY OF INSUFFICIENT WATER. SKIMMER IN WELL

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876  
 Site Address: 2259 First Street Event Date: 12.9.13 (inclusive)  
 City: Livermore, CA Sampler: FT

Well ID: MW-8 Date Monitored: 12.9.13  
 Well Diameter: 2  
 Total Depth: 38.90 ft.  
 Depth to Water: 33.82 ft.  Check if water column is less than 0.50 ft.  
5.08 xVF 17 = .86 x3 case volume = Estimated Purge Volume: 25 gal.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 34.83

### 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: \_\_\_\_\_

Start Time (purge): 1305 Weather Conditions: SUNNY  
 Sample Time/Date: 1330 / 12.9.13 Water Color: LT. GRAY Odor: Ø / N STRONG  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: S. SILTY  
 Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 34.76

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>DS</u> )	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>1308</u>	<u>.75</u>	<u>7.04</u>	<u>902</u>	<u>15.1</u>	/	/
<u>1311</u>	<u>1.5</u>	<u>6.99</u>	<u>910</u>	<u>15.7</u>	/	/
<u>1314</u>	<u>2.5</u>	<u>6.96</u>	<u>914</u>	<u>16.1</u>	/	/

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	4 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	2 x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	1 x 250ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	1 x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	1 x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	1 x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	3 x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

### COMMENTS:

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876  
 Site Address: 2259 First Street Event Date: 12.9.13 (inclusive)  
 City: Livermore, CA Sampler: FT

Well ID: MW-9 Date Monitored: 12.9.13  
 Well Diameter: 2  
 Total Depth: 39.83 ft.  
 Depth to Water: 34.81 ft.  Check if water column is less than 0.50 ft.  
5.02 xVF .17 = .85 x3 case volume = Estimated Purge Volume: 2.5 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 35.81

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

### Purge Equipment:

Disposable 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: \_\_\_\_\_

Start Time (purge): 1200 Weather Conditions: SUNNY  
 Sample Time/Date: 1440 12.9.13 Water Color: LT. BROW Odor: Y / N  
 Approx. Flow Rate: ✓ gpm. Sediment Description: S. SILTY  
 Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 34.92

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>DS</u> )	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1203</u>	<u>.75</u>	<u>7.46</u>	<u>636</u>	<u>15.6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>1206</u>	<u>1.5</u>	<u>7.44</u>	<u>633</u>	<u>16.0</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>1209</u>	<u>2.5</u>	<u>7.43</u>	<u>631</u>	<u>16.4</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	2 x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	1 x 250ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	3 x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876  
 Site Address: 2259 First Street Event Date: 12.9.13 (inclusive)  
 City: Livermore, CA Sampler: FT

Well ID: MW-10 Date Monitored: 12.9.13  
 Well Diameter: 2  
 Total Depth: 32.06 ft.  
 Depth to Water: 28.18 ft.  Check if water column is less than 0.50 ft.  
3.88 xVF .17 = .65 x3 case volume = Estimated Purge Volume: 2.0 gal.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 28.95

### 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: \_\_\_\_\_

Start Time (purge): 1240 Weather Conditions: Sunny  
 Sample Time/Date: 1515 / 12.9.13 Water Color: CLEAN Odor: D/N STRONG  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: NONE  
 Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 28.23

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) (µS)	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1243</u>	<u>.75</u>	<u>7.11</u>	<u>861</u>	<u>15.8</u>	/	/
<u>1246</u>	<u>1.5</u>	<u>7.09</u>	<u>865</u>	<u>16.2</u>	/	/
<u>1249</u>	<u>2.0</u>	<u>7.07</u>	<u>869</u>	<u>16.6</u>	/	/

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	1 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	2 x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	x 250ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	3 x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

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

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





# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876  
 Site Address: 2259 First Street Event Date: 12.9.13 (inclusive)  
 City: Livermore, CA Sampler: FT

Well ID: MW-11 Date Monitored: 12.9.13  
 Well Diameter: 2  
 Total Depth: 34.71 ft.  
 Depth to Water: 31.38 ft.  Check if water column is less than 0.50 ft.  
3.33 xVF .17 = .56 x3 case volume = Estimated Purge Volume: 2.0 gal.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 32.04

**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: \_\_\_\_\_

Start Time (purge): 1225 Weather Conditions: SUNNY  
 Sample Time/Date: 1455 / 12.9.13 Water Color: CLEAN Odor: Y10  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: NOPE  
 Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 31.46

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>US</u> )	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>1228</u>	<u>.75</u>	<u>7.40</u>	<u>671</u>	<u>17.7</u>	/	/
<u>1231</u>	<u>1.5</u>	<u>7.37</u>	<u>669</u>	<u>17.9</u>	/	/
<u>1234</u>	<u>2.0</u>	<u>7.35</u>	<u>665</u>	<u>18.1</u>	/	/

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	2 x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	1 x 250ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	1 x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	1 x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	1 x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	3 x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876  
 Site Address: 2259 First Street Event Date: 12.9.13 (inclusive)  
 City: Livermore, CA Sampler: Fr

Well ID: MW-12 Date Monitored: 12.9.13  
 Well Diameter: 2  
 Total Depth: 34.48 ft.  
 Depth to Water: 24.68 ft.  Check if water column is less than 0.50 ft.  
9.80 x VF .17 = 1.66 x3 case volume = Estimated Purge Volume: 5.0 gal.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 26.64

### 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: \_\_\_\_\_

Start Time (purge): 1345 Weather Conditions: SUNNY  
 Sample Time/Date: 1410 / 12.9.13 Water Color: CLEAR Odor: D/N STUOR  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: NONE  
 Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 26.31

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) <u>US</u>	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1348</u>	<u>1.5</u>	<u>7.02</u>	<u>887</u>	<u>16.7</u>	_____	_____
<u>1351</u>	<u>3.0</u>	<u>6.98</u>	<u>892</u>	<u>17.1</u>	_____	_____
<u>1355</u>	<u>5.0</u>	<u>6.95</u>	<u>896</u>	<u>17.6</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	2 x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	1 x 250ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	1 x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	1 x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	1 x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	3 x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

### COMMENTS:

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

# Chevron California Region Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_  
 For Eurofins Lancaster Laboratories use only  
 Instructions on reverse side correspond with circled numbers.

1 of 1

<b>1 Client Information</b>				<b>4 Matrix</b>			<b>5 Analyses Requested</b>										<b>6 Remarks</b>										
Facility # <u>55#307233-OML G-R#385876 Global ID#10600196622</u> WBS Site Address <u>2255 FIRST STREET, LIVERMORE, CA</u> Chevron PM <u>CRASS</u> Lead Consultant <u>CRASS</u> Consultant/Office <u>Detler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568</u> Consultant Project Mgr. _____ Consultant Phone # _____ Sampler <u>FRANK TEKKINONI</u>				Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Total Number of Containers _____			BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> TPH-GRO 8015 <input type="checkbox"/> 8260 <input type="checkbox"/> TPH-DRO 8015 without Silica Gel Cleanup <input type="checkbox"/> TPH-DRO 8015 with Silica Gel Cleanup <input type="checkbox"/> 8260 Full Scan _____ Oxygenates _____ Total Lead _____ Dissolved Lead _____ Method _____ Method <u>CSM20 3500FE8</u>										SCR #: _____ <input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run _____ oxy's on highest hit <input type="checkbox"/> Run _____ oxy's on all hits										
<b>2 Sample Identification</b>		<b>3 Collected</b>		<b>3 Grab</b>	<b>3 Composite</b>	<b>Soil</b>	<b>Water</b>	<b>Oil</b>	<b>Total Number of Containers</b>	<b>BTEX + MTBE</b>	<b>8021</b>	<b>8260</b>	<b>TPH-GRO</b>	<b>8015</b>	<b>8260</b>	<b>TPH-DRO 8015 without Silica Gel Cleanup</b>	<b>TPH-DRO 8015 with Silica Gel Cleanup</b>	<b>8260 Full Scan</b>	<b>Oxygenates</b>	<b>Total Lead</b>	<b>Method</b>	<b>Dissolved Lead</b>	<b>Method</b>	<b>6</b>			
MW-8		12.9.13 1330		X			W		---															Please wsg 10/10 10/10 10/10			
MW-9		1440		X					---																		
MW-10		1515		X					---																		
MW-11		1455		X					---																		
MW-12		1410		X			↓		---																		
<b>7 Turnaround Time Requested (TAT) (please circle)</b>				<b>Relinquished by</b>			<b>Date</b>		<b>Time</b>		<b>Received by</b>			<b>Date</b>		<b>Time</b>		<b>9</b>									
Standard <u>5 day</u> 4 day 72 hour 48 hour 24 hour				_____ _____			12.9.13		1700									Please forward the lab results directly to the Date of Consultant's R.R. _____ Time _____									
<b>8 Data Package (circle if required)</b>				<b>Relinquished by Commercial Carrier:</b>			<b>Date</b>		<b>Time</b>		<b>Received by</b>			<b>Date</b>		<b>Time</b>		<b>9</b>									
Type I - Full Type VI (Raw Data)				EDD (circle if required) EDFFLAT (default) Other: _____			UPS _____ FedEx _____ Other _____		Temperature Upon Receipt _____ °C		Custody Seals Intact?			Yes No				Date of Consultant's R.R. _____ Time _____									

# Chevron California Region Analysis Request/Chain of Custody



**Lancaster Laboratories**

For Eurofins Lancaster Laboratories use only  
 Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_  
 Instructions on reverse side correspond with circled numbers.

<b>1 Client Information</b>				<b>4 Matrix</b>				<b>5 Analyses Requested</b>							
Facility # <u>55#307233-OML G-R#385876 Global D#10600198622</u> <span style="float: right;">WBS</span>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input checked="" type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>				Total Number of Containers BTEX <input checked="" type="checkbox"/> 8021 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/> TPH-GRO 8015 <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> TPH-DRO 8015 without Silica Gel Cleanup <input type="checkbox"/> TPH-DRO 8015 with Silica Gel Cleanup <input checked="" type="checkbox"/> 8260-Full Screen <u>CALCIUM (6010)</u> Total Lead _____ Dissolved <u>METHANE (RSK-175)</u> TPH-Duo w/sgc <u>COLUMN</u> SULFATE EPA(300.0) (SM 20 4500 SZD) DISSOLVED SULFIDE (45 CALCB3) (SM 20 4500) TOTAL ALKALINITY (SZD)							
Site Address <u>2255 FIRST STREET, LIVERMORE, CA</u>															
Chevron PM <u>CRASB</u>		Lead Consultant <u>OLIVA</u>													
Consultant/Office <u>Global Environmental, Inc. 3800 Sierra Court, Suite G, Dublin, CA 94568</u>															
Consultant Project Mgr. <u>Deanna C. Harding, deanna@grins.com</u>															
Consultant Phone # <u>(925) 931-1111 x100</u>															
Sampler <u>FRANK TENKINONI</u>				<b>3</b>											
<b>2 Sample Identification</b>		<b>Soil Depth</b>	<b>Collected</b>		<b>Grab</b>	<b>Composite</b>									
			<b>Date</b>	<b>Time</b>											
QA			12.9.13												
MW-7				1425	X		7								
MW-8				1330	X		16								
MW-9				1440	X		16								
MW-10				1515	X		16								
MW-11				455	X		16								
MW-12			↓	1410	X		16								

SCR #: \_\_\_\_\_

- Results in Dry Weight
- J value reporting needed
- Must meet lowest detection limits possible for 8260 compounds
- 8021 MTBE Confirmation
- Confirm highest hit by 8260
- Confirm all hits by 8260
- Run \_\_\_\_\_ oxy's on highest hit
- Run \_\_\_\_\_ oxy's on all hits

<b>7 Turnaround Time Requested (TAT) (please circle)</b>				Relinquished by <u>[Signature]</u>		Date <u>12.9.13</u>	Time <u>1830</u>	Received by <u>GETTLER-RYAN FRIDGE</u>		Date <u>12/10/13</u>	Time <u>0800</u>	<b>9</b>
Standard <input checked="" type="radio"/> 5 day      4 day 72 hour      48 hour      24 hour				Relinquished by <u>[Signature]</u>		Date <u>12.11.13</u>	Time <u>1530</u>	Received by <u>[Signature]</u>		Date <u>12/11/13</u>	Time <u>1530</u>	
<b>8 Data Package (circle if required)</b>		<b>EDD (circle if required)</b>		Relinquished by Commercial Carrier:				Received by		Date	Time	
Type I - Full		EDFFLAT (default)		UPS _____ FedEx _____ Other _____								
Type VI (Raw Data)		Other: _____		Temperature Upon Receipt _____ °C				Custody Seals Intact?		Yes	No	

ATTACHMENT B

LABORATORY ANALYTICAL REPORTS

## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron  
L4310  
6001 Bollinger Canyon Rd.  
San Ramon CA 94583

December 27, 2013

Project: 307233

Submittal Date: 12/12/2013

Group Number: 1440313

PO Number: 0015118372

Release Number: SHRILL HOPKINS

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
QA-T-131209 NA Water	7310124
MW-7-W-131209 Grab Water	7310125
MW-7-W-131209 Grab Water	7310126
MW-8-W-131209 Grab Water	7310127
MW-8-W-131209 Grab Water	7310128
MW-9-W-131209 Grab Water	7310129
MW-9-W-131209 Grab Water	7310130
MW-10-W-131209 Grab Water	7310131
MW-10-W-131209 Grab Water	7310132
MW-11-W-131209 Grab Water	7310133
MW-11-W-131209 Grab Water	7310134
MW-12-W-131209 Grab Water	7310135
MW-12-W-131209 Grab Water	7310136

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	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC COPY TO	Chevron	Attn: Anna Avina
ELECTRONIC COPY TO	CRA	Attn: Brian Silva



Respectfully Submitted,



Amek Carter  
Specialist

(717) 556-7252

Sample Description: QA-T-131209 NA Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310124  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013

Chevron

Submitted: 12/12/2013 09:30

L4310

Reported: 12/27/2013 13:07

6001 Bollinger Canyon Rd.  
San Ramon CA 94583

7233T

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B ug/l ug/l</b>					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles SW-846 8015B ug/l ug/l</b>					
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10943	BTEX 8260B Water	SW-846 8260B	1	F133522AA	12/18/2013 19:11	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133522AA	12/18/2013 19:11	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13351A20A	12/18/2013 11:08	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	13351A20A	12/18/2013 11:08	Laura M Krieger	1

Sample Description: MW-7-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310125  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:25 by FT Chevron  
L4310  
Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
Reported: 12/27/2013 13:07 San Ramon CA 94583

72337

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B ug/l</b>					
10943	Benzene	71-43-2	2,600	50	100
10943	Ethylbenzene	100-41-4	400	5	10
10943	Toluene	108-88-3	22	5	10
10943	Xylene (Total)	1330-20-7	220	5	10
<b>GC Volatiles SW-846 8015B ug/l</b>					
01728	TPH-GRO N. CA water C6-C12	n.a.	17,000	2,500	50
<b>GC Petroleum SW-846 8015B ug/l</b>					
<b>Hydrocarbons w/Si</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	82,000	660	20
Due to the dilution of the sample extract, capric acid recovery can not be determined.					

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10943	BTEX 8260B Water	SW-846 8260B	1	F133522AA	12/18/2013 20:39	Brett W Kenyon	10
10943	BTEX 8260B Water	SW-846 8260B	1	F133522AA	12/18/2013 21:01	Brett W Kenyon	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133522AA	12/18/2013 20:39	Brett W Kenyon	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F133522AA	12/18/2013 21:01	Brett W Kenyon	100
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13351A20A	12/18/2013 15:11	Marie D Beamenderfer	50
01146	GC VOA Water Prep	SW-846 5030B	1	13351A20A	12/18/2013 15:11	Marie D Beamenderfer	50
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460022A	12/18/2013 15:29	Christine E Dolman	20
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460022A	12/13/2013 09:45	Katherlyne V Sponheimer	1

Sample Description: MW-7-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310126  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:25 by FT Chevron  
L4310  
Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
Reported: 12/27/2013 13:07 San Ramon CA 94583

-2337

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	<b>GC Petroleum Hydrocarbons w/Si</b>	<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	94,000	3,300	100

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460025A	12/17/2013 20:15	Christine E Dolman	100
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460025A	12/13/2013 09:45	Katheryne V Sponheimer	1

Sample Description: **MW-8-W-131209 Grab Water**  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622

LL Sample # WW 7310127  
 LL Group # 1440313  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 13:30 by FT Chevron  
 L4310  
 Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
 Reported: 12/27/2013 13:07 San Ramon CA 94583

72338

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B ug/l ug/l</b>					
10943	Benzene	71-43-2	1	0.5	1
10943	Ethylbenzene	100-41-4	3	0.5	1
10943	Toluene	108-88-3	0.7	0.5	1
10943	Xylene (Total)	1330-20-7	0.9	0.5	1
<b>GC Volatiles SW-846 8015B ug/l ug/l</b>					
01728	TPH-GRO N. CA water C6-C12	n.a.	6,800	250	5
<b>GC Miscellaneous SW-846 8015B modified ug/l ug/l</b>					
07105	Methane	74-82-8	2,400	60	20
<b>GC Petroleum SW-846 8015B ug/l ug/l</b>					
<b>Hydrocarbons w/Si</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	13,000	50	1
Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.					
<b>Metals SW-846 6010B ug/l ug/l</b>					
01750	Calcium	7440-70-2	22,000	33.4	1
<b>Wet Chemistry EPA 300.0 ug/l ug/l</b>					
00228	Sulfate	14808-79-8	N.D.	1,500	5
<b>SM 2320 B-1997 ug/l as CaCO3 ug/l as CaCO3</b>					
12150	Total Alkalinity	n.a.	219,000	700	1
<b>SM 4500-S2 D-2000 ug/l ug/l</b>					
10499	Dissolved Sulfide	n.a.	220	54	1

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10943	BTEX 8260B Water	SW-846 8260B	1	F133522AA	12/18/2013 21:22	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133522AA	12/18/2013 21:22	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13351A20A	12/18/2013 15:33	Marie D Beamenderfer	5

Sample Description: MW-8-W-131209 Grab Water  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622

LL Sample # WW 7310127  
 LL Group # 1440313  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 13:30 by FT Chevron  
 L4310  
 Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
 Reported: 12/27/2013 13:07 San Ramon CA 94583

72338

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	13351A20A	12/18/2013 15:33	Marie D Beamenderfer	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	133510030A	12/17/2013 22:39	Elizabeth J Marin	20
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460022A	12/17/2013 14:12	Christine E Dolman	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460022A	12/13/2013 09:45	Katheryne V Sponheimer	1
01750	Calcium	SW-846 6010B	1	133511848003	12/23/2013 12:38	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133511848003	12/17/2013 15:00	James L Mertz	1
00228	Sulfate	EPA 300.0	1	13349347602B	12/15/2013 17:02	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13346006201A	12/12/2013 15:43	Michele L Graham	1
10499	Dissolved Sulfide	SM 4500-S2 D-2000	1	13347023001A	12/13/2013 11:40	Michele L Graham	1

Sample Description: MW-8-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310128  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 13:30 by FT Chevron  
L4310  
Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
Reported: 12/27/2013 13:07 San Ramon CA 94583

-2338

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	<b>GC Petroleum Hydrocarbons w/Si</b>	<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	19,000	69	2

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460025A	12/17/2013 19:53	Christine E Dolman	2
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460025A	12/13/2013 09:45	Katheryne V Sponheimer	1

Sample Description: MW-9-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310129  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:40 by FT Chevron  
L4310  
Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
Reported: 12/27/2013 13:07 San Ramon CA 94583

72339

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b>					
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
<b>GC Miscellaneous</b>					
07105	Methane	74-82-8	N.D.	3.0	1
<b>GC Petroleum Hydrocarbons w/Si</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
The reverse surrogate, capric acid, is present at <1%.					
<b>Metals</b>					
01750	Calcium	7440-70-2	61,800	33.4	1
<b>Wet Chemistry</b>					
00228	Sulfate	14808-79-8	118,000	6,000	20
12150	Total Alkalinity	n.a.	299,000	700	1
10499	Dissolved Sulfide	n.a.	N.D.	54	1

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10943	BTEX 8260B Water	SW-846 8260B	1	F133522AA	12/18/2013 19:33	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133522AA	12/18/2013 19:33	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13351A20A	12/18/2013 12:37	Marie D Beamenderfer	1



Sample Description: MW-9-W-131209 Grab Water  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622

LL Sample # WW 7310129  
 LL Group # 1440313  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:40 by FT Chevron  
 L4310  
 Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
 Reported: 12/27/2013 13:07 San Ramon CA 94583

72339

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	13351A20A	12/18/2013 12:37	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	133510030A	12/17/2013 16:18	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460022A	12/17/2013 14:35	Christine E Dolman	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460022A	12/13/2013 09:45	Katheryne V Sponheimer	1
01750	Calcium	SW-846 6010B	1	133511848003	12/23/2013 12:41	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133511848003	12/17/2013 15:00	James L Mertz	1
00228	Sulfate	EPA 300.0	1	13349347602B	12/17/2013 01:20	Sandra J Miller	20
12150	Total Alkalinity	SM 2320 B-1997	1	13346006201A	12/12/2013 15:49	Michele L Graham	1
10499	Dissolved Sulfide	SM 4500-S2 D-2000	1	13347023001A	12/13/2013 11:40	Michele L Graham	1

Sample Description: MW-9-W-131209 Grab Water  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622

LL Sample # WW 7310130  
 LL Group # 1440313  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:40 by FT Chevron  
 Submitted: 12/12/2013 09:30 L4310  
 Reported: 12/27/2013 13:07 6001 Bollinger Canyon Rd.  
 San Ramon CA 94583

-2339

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	<b>GC Petroleum Hydrocarbons w/Si</b>	<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA  
 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
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460025A	12/17/2013 18:22	Christine E Dolman	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460025A	12/13/2013 09:45	Katheryne V Sponheimer	1

Sample Description: MW-10-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310131  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 15:15 by FT Chevron  
L4310  
Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
Reported: 12/27/2013 13:07 San Ramon CA 94583

23310

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
10943	Benzene	71-43-2	0.8	0.5	1
10943	Ethylbenzene	100-41-4	49	0.5	1
10943	Toluene	108-88-3	2	0.5	1
10943	Xylene (Total)	1330-20-7	17	0.5	1
<b>GC Volatiles</b>					
01728	TPH-GRO N. CA water C6-C12	n.a.	6,500	250	5
<b>GC Miscellaneous</b>					
07105	Methane	74-82-8	2,500	60	20
<b>GC Petroleum Hydrocarbons w/Si</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	3,400	50	1
Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.					
<b>Metals</b>					
01750	Calcium	7440-70-2	24,800	33.4	1
<b>Wet Chemistry</b>					
00228	Sulfate	14808-79-8	6,000	1,500	5
12150	Total Alkalinity	n.a.	255,000	700	1
10499	Dissolved Sulfide	n.a.	180	54	1

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10943	BTEX 8260B Water	SW-846 8260B	1	F133522AA	12/18/2013 22:06	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133522AA	12/18/2013 22:06	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13351A20A	12/18/2013 15:55	Catherine J Schwarz	5

Sample Description: MW-10-W-131209 Grab Water  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622

LL Sample # WW 7310131  
 LL Group # 1440313  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 15:15 by FT Chevron  
 Submitted: 12/12/2013 09:30 L4310  
 Reported: 12/27/2013 13:07 6001 Bollinger Canyon Rd.  
 San Ramon CA 94583

23310

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	13351A20A	12/18/2013 15:55	Catherine J Schwarz	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	133510030A	12/17/2013 22:58	Elizabeth J Marin	20
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460022A	12/17/2013 14:58	Christine E Dolman	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460022A	12/13/2013 09:45	Katheryne V Sponheimer	1
01750	Calcium	SW-846 6010B	1	133511848003	12/23/2013 12:52	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133511848003	12/17/2013 15:00	James L Mertz	1
00228	Sulfate	EPA 300.0	1	13349347602B	12/15/2013 17:34	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13346006201A	12/12/2013 16:18	Michele L Graham	1
10499	Dissolved Sulfide	SM 4500-S2 D-2000	1	13347023001A	12/13/2013 11:40	Michele L Graham	1

Sample Description: MW-10-W-131209 Grab Water  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622

LL Sample # WW 7310132  
 LL Group # 1440313  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 15:15 by FT Chevron  
 Submitted: 12/12/2013 09:30 L4310  
 Reported: 12/27/2013 13:07 6001 Bollinger Canyon Rd.  
 San Ramon CA 94583

-3310

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	<b>GC Petroleum Hydrocarbons w/Si</b>	<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	5,100	50	1

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA  
 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
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460025A	12/17/2013 18:45	Christine E Dolman	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460025A	12/13/2013 09:45	Katheryne V Sponheimer	1

Sample Description: MW-11-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310133  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:55 by FT Chevron  
L4310  
Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
Reported: 12/27/2013 13:07 San Ramon CA 94583

23311

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b> SW-846 8260B ug/l ug/l					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b> SW-846 8015B ug/l ug/l					
01728	TPH-GRO N. CA water C6-C12	n.a.	100	50	1
<b>GC Miscellaneous</b> SW-846 8015B modified ug/l ug/l					
07105	Methane	74-82-8	210	3.0	1
<b>GC Petroleum Hydrocarbons w/Si</b> SW-846 8015B ug/l ug/l					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
The reverse surrogate, capric acid, is present at <1%.					
<b>Metals</b> SW-846 6010B ug/l ug/l					
01750	Calcium	7440-70-2	43,900	33.4	1
<b>Wet Chemistry</b> EPA 300.0 ug/l ug/l					
00228	Sulfate	14808-79-8	72,100	1,500	5
<b>SM 2320 B-1997</b> ug/l as CaCO3 ug/l as CaCO3					
12150	Total Alkalinity	n.a.	284,000	700	1
<b>SM 4500-S2 D-2000</b> ug/l ug/l					
10499	Dissolved Sulfide	n.a.	N.D.	54	1

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10943	BTEX 8260B Water	SW-846 8260B	1	Z133502AA	12/16/2013 13:36	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z133502AA	12/16/2013 13:36	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13351A20A	12/18/2013 12:59	Marie D Beamenderfer	1

Sample Description: MW-11-W-131209 Grab Water  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622

LL Sample # WW 7310133  
 LL Group # 1440313  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:55 by FT Chevron  
 Submitted: 12/12/2013 09:30 L4310  
 Reported: 12/27/2013 13:07 6001 Bollinger Canyon Rd.  
 San Ramon CA 94583

23311

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	13351A20A	12/18/2013 12:59	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	133510030A	12/17/2013 17:12	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460022A	12/17/2013 15:20	Christine E Dolman	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460022A	12/13/2013 09:45	Katheryne V Sponheimer	1
01750	Calcium	SW-846 6010B	1	133511848003	12/23/2013 12:56	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133511848003	12/17/2013 15:00	James L Mertz	1
00228	Sulfate	EPA 300.0	1	13349347602B	12/15/2013 18:23	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13346006201A	12/12/2013 15:24	Michele L Graham	1
10499	Dissolved Sulfide	SM 4500-S2 D-2000	1	13347023001A	12/13/2013 11:40	Michele L Graham	1

Sample Description: MW-11-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310134  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:55 by FT Chevron  
L4310  
Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
Reported: 12/27/2013 13:07 San Ramon CA 94583

-3311

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	<b>GC Petroleum Hydrocarbons w/Si</b>	<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	220	50	1

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460025A	12/17/2013 19:07	Christine E Dolman	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460025A	12/13/2013 09:45	Katheryne V Sponheimer	1



Sample Description: MW-12-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310135  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:10 by FT Chevron  
L4310  
Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
Reported: 12/27/2013 13:07 San Ramon CA 94583

23312

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	<b>SW-846 8260B</b>		<b>ug/l</b>	<b>ug/l</b>	
10943	Benzene	71-43-2	19	0.5	1
10943	Ethylbenzene	100-41-4	2	0.5	1
10943	Toluene	108-88-3	3	0.5	1
10943	Xylene (Total)	1330-20-7	1	0.5	1
<b>GC Volatiles</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
01728	TPH-GRO N. CA water C6-C12	n.a.	2,500	50	1
<b>GC Miscellaneous</b>					
	<b>SW-846 8015B modified</b>		<b>ug/l</b>	<b>ug/l</b>	
07105	Methane	74-82-8	890	15	5
<b>GC Petroleum Hydrocarbons w/Si</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	260	50	1
The reverse surrogate, capric acid, is present at <1%. Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.					
<b>Metals</b>					
	<b>SW-846 6010B</b>		<b>ug/l</b>	<b>ug/l</b>	
01750	Calcium	7440-70-2	70,800	33.4	1
<b>Wet Chemistry</b>					
	<b>EPA 300.0</b>		<b>ug/l</b>	<b>ug/l</b>	
00228	Sulfate	14808-79-8	14,900	1,500	5
	<b>SM 2320 B-1997</b>		<b>ug/l as CaCO3</b>	<b>ug/l as CaCO3</b>	
12150	Total Alkalinity	n.a.	577,000	700	1
	<b>SM 4500-S2 D-2000</b>		<b>ug/l</b>	<b>ug/l</b>	
10499	Dissolved Sulfide	n.a.	N.D.	54	1

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Sample Description: MW-12-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310135  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:10 by FT

Chevron

L4310

Submitted: 12/12/2013 09:30

6001 Bollinger Canyon Rd.

Reported: 12/27/2013 13:07

San Ramon CA 94583

23312

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F133522AA	12/18/2013 22:49	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133522AA	12/18/2013 22:49	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13351A20A	12/18/2013 13:21	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13351A20A	12/18/2013 13:21	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	133510030A	12/17/2013 23:16	Elizabeth J Marin	5
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460022A	12/17/2013 15:43	Glorines Suarez-Rivera	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	133460022A	12/13/2013 09:45	Katheryne V Sponheimer	1
01750	Calcium	SW-846 6010B	1	133511848003	12/23/2013 13:00	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133511848003	12/17/2013 15:00	James L Mertz	1
00228	Sulfate	EPA 300.0	1	13349347602B	12/15/2013 18:39	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13346006201B	12/12/2013 15:56	Michele L Graham	1
10499	Dissolved Sulfide	SM 4500-S2 D-2000	1	13347023001A	12/13/2013 11:40	Michele L Graham	1

Sample Description: MW-12-W-131209 Grab Water  
Facility# 307233 Job# 385876 GRD  
2259 First St-Livermore T0600196622

LL Sample # WW 7310136  
LL Group # 1440313  
Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:10 by FT Chevron  
L4310  
Submitted: 12/12/2013 09:30 6001 Bollinger Canyon Rd.  
Reported: 12/27/2013 13:07 San Ramon CA 94583

-3312

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	<b>GC Petroleum Hydrocarbons w/Si</b>	<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	670	50	1

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA  
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
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	133460025A	12/17/2013 19:30	Christine E Dolman	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	133460025A	12/13/2013 09:45	Katheryne V Sponheimer	1

## Quality Control Summary

Client Name: Chevron  
Reported: 12/27/13 at 01:07 PM

Group Number: 1440313

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: F133522AA	Sample number(s): 7310124-7310125, 7310127, 7310129, 7310131, 7310135							
Benzene	N.D.	0.5	ug/l	93		78-120		
Ethylbenzene	N.D.	0.5	ug/l	92		79-120		
Toluene	N.D.	0.5	ug/l	90		80-120		
Xylene (Total)	N.D.	0.5	ug/l	95		80-120		
Batch number: Z133502AA	Sample number(s): 7310133							
Benzene	N.D.	0.5	ug/l	101		78-120		
Ethylbenzene	N.D.	0.5	ug/l	100		79-120		
Toluene	N.D.	0.5	ug/l	103		80-120		
Xylene (Total)	N.D.	0.5	ug/l	102		80-120		
Batch number: 13351A20A	Sample number(s): 7310124-7310125, 7310127, 7310129, 7310131, 7310133, 7310135							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	114	116	75-135	2	30
Batch number: 133510030A	Sample number(s): 7310127, 7310129, 7310131, 7310133, 7310135							
Methane	N.D.	3.0	ug/l	108		80-120		
Batch number: 133460022A	Sample number(s): 7310125, 7310127, 7310129, 7310131, 7310133, 7310135							
TPH-DRO CA C10-C28 w/ Si Gel	34	32.	ug/l	62	66	43-120	7	20
Batch number: 133460025A	Sample number(s): 7310126, 7310128, 7310130, 7310132, 7310134, 7310136							
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	32.	ug/l	95	96	43-120	1	20
Batch number: 133511848003	Sample number(s): 7310127, 7310129, 7310131, 7310133, 7310135							
Calcium	N.D.	33.4	ug/l	101		90-112		
Batch number: 13349347602B	Sample number(s): 7310127, 7310129, 7310131, 7310133, 7310135							
Sulfate	N.D.	300.	ug/l	101		90-110		
Batch number: 13346006201A	Sample number(s): 7310127, 7310129, 7310131, 7310133							
Total Alkalinity	1,600	700.	ug/l as CaCO3	98		90-110		
Batch number: 13346006201B	Sample number(s): 7310135							
Total Alkalinity	1,600	700.	ug/l as CaCO3	98		90-110		
Batch number: 13347023001A	Sample number(s): 7310127, 7310129, 7310131, 7310133, 7310135							
Dissolved Sulfide	N.D.	54.	ug/l	109		90-110		

\*- Outside of specification

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

## Quality Control Summary

Client Name: Chevron Group Number: 1440313  
Reported: 12/27/13 at 01:07 PM

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS %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: F133522AA	Sample number(s): 7310124-7310125, 7310127, 7310129, 7310131, 7310135 UNSPK: 7310129								
Benzene	100	96	72-134	4	30				
Ethylbenzene	97	95	71-134	2	30				
Toluene	100	95	80-125	5	30				
Xylene (Total)	101	98	79-125	4	30				
Batch number: Z133502AA	Sample number(s): 7310133 UNSPK: 7310133								
Benzene	107	108	72-134	1	30				
Ethylbenzene	104	107	71-134	3	30				
Toluene	106	111	80-125	4	30				
Xylene (Total)	105	108	79-125	3	30				
Batch number: 133510030A	Sample number(s): 7310127, 7310129, 7310131, 7310133, 7310135 UNSPK: 7310127								
Methane	-281 (2)	-355 (2)	35-157	2	20				
Batch number: 133511848003	Sample number(s): 7310127, 7310129, 7310131, 7310133, 7310135 UNSPK: P311481 BKG: P311481								
Calcium	110 (2)	71 (2)	75-125	3	20	59,300	60,300	2	20
Batch number: 13349347602B	Sample number(s): 7310127, 7310129, 7310131, 7310133, 7310135 UNSPK: P309528 BKG: P309528								
Sulfate	105		90-110			54,700	55,500	1	20
Batch number: 13346006201A	Sample number(s): 7310127, 7310129, 7310131, 7310133 UNSPK: 7310133 BKG: 7310133								
Total Alkalinity	93		10-159			284,000	284,000	0	5
Batch number: 13346006201B	Sample number(s): 7310135 UNSPK: 7310133 BKG: 7310135								
Total Alkalinity	93		10-159			577,000	578,000	0	5
Batch number: 13347023001A	Sample number(s): 7310127, 7310129, 7310131, 7310133, 7310135 UNSPK: P310947 BKG: P310947								
Dissolved Sulfide	87	87	42-131	1	16	N.D.	N.D.	0 (1)	5

### 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: UST VOCs by 8260B - Water

Batch number: F133522AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7310124	97	100	98	93
7310125	98	99	98	96
7310127	99	98	97	96
7310129	101	98	98	92
7310131	101	98	97	99

\*- Outside of specification

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

## Quality Control Summary

Client Name: Chevron  
Reported: 12/27/13 at 01:07 PM

Group Number: 1440313

### Surrogate Quality Control

7310135	98	97	96	105
Blank	100	100	98	92
LCS	100	99	97	93
MS	101	103	96	95
MSD	98	102	98	95

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

Analysis Name: UST VOCs by 8260B - Water  
Batch number: Z133502AA

Dibromofluoromethane      1,2-Dichloroethane-d4      Toluene-d8      4-Bromofluorobenzene

7310133	99	97	101	98
Blank	99	97	100	96
LCS	98	97	99	99
MS	99	98	99	99
MSD	98	98	101	100

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

Analysis Name: TPH-GRO N. CA water C6-C12  
Batch number: 13351A20A

Trifluorotoluene-F

7310124	82
7310125	83
7310127	83
7310129	81
7310131	81
7310133	80
7310135	124
Blank	80
LCS	83
LCSD	83

Limits: 63-135

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel  
Batch number: 133460022A

Orthoterphenyl

7310125	322*
7310127	82
7310129	72
7310131	67
7310133	72
7310135	79
Blank	77
LCS	75
LCSD	76

Limits: 46-131

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel  
Batch number: 133460025A

Orthoterphenyl

\*- Outside of specification

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

## Quality Control Summary

Client Name: Chevron  
Reported: 12/27/13 at 01:07 PM

Group Number: 1440313

### Surrogate Quality Control

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7310126	403*
7310128	120
7310130	97
7310132	91
7310134	100
7310136	101
Blank	105
LCS	106
LCSD	106

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Limits: 46-131

Analysis Name: Volatile Headspace Hydrocarbon  
Batch number: 133510030A  
Propene

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7310127	108
7310129	78
7310131	106
7310133	75
7310135	85
Blank	107
LCS	105
MS	81
MSD	79

---

Limits: 42-131

\*- Outside of specification

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

# Chevron California Region Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 10904

For Eurofins Lancaster Laboratories use only  
Group # 1440313 Sample # 7310124-36

Instructions on reverse side correspond with circled numbers.

121113-03 500ml

SCR #: 10fl

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks																		
Facility # <u>SS#307233-OML G-R#385876 Global ID#T0600196622</u> Site Address <u>2259 FIRST STREET, LIVERMORE, CA</u> Chevron PM <u>CRASB</u> Lead Consultant <u>Silva</u> Consultant/Office <u>Getter-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568</u> Consultant Project Mgr. <u>Deanna L. Harding, deanna@grinc.com</u> Consultant Phone # <u>(925) 551-7444 x180</u> Sampler <u>FRANK TENKINONI</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Oil <input type="checkbox"/> Ground <input checked="" type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Surface <input type="checkbox"/>				Total Number of Containers <u>2</u> BTEX 8021 <input checked="" type="checkbox"/> 8260 <input checked="" type="checkbox"/> TPH-GRO 8015 <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> TPH-DRO 8015 without Silica Gel Cleanup <input type="checkbox"/> TPH-DRO 8015 with Silica Gel Cleanup <input checked="" type="checkbox"/> 8260-Full Scap <u>CALCIUM (6010)</u> Total Lead <u>[REDACTED]</u> Method <u>[REDACTED]</u> Dissolved <u>METHANE (PSK-175)</u> TPH-DUG w/sgc <u>COLUMN</u> SULFATE EPA(300.0) <u>[REDACTED]</u> (SM 20 450 52D) DISSOLVED SULFIDE <u>[REDACTED]</u> (SM 20 450 52D) TOTAL ALKALINITY <u>[REDACTED]</u> (SM 20 450 52D)										<input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run _____ oxy's on highest hit <input type="checkbox"/> Run _____ oxy's on all hits																		
2 Sample Identification		Soil Depth	3 Collected		Grab	Composite	Soil		Water		Oil		Total Number of Containers		BTEX		TPH-GRO		TPH-DRO		8260-Full Scap		Total Lead		Dissolved		TPH-DUG		SULFATE		DISSOLVED SULFIDE		TOTAL ALKALINITY		6 Remarks	
QA			12.9.13				W						2		X		X																Please report DKO w/sgc using 10 grams of silica and also report 1 gram shake results			
MW-7			1425	X								7		X		X																				
MW-8			1330	X								16		X		X																				
MW-9			1440	X								16		X		X																				
MW-10			1515	X								16		X		X																				
MW-11			1455	X								16		X		X																				
MW-12			1410	X								16		X		X																				
7 Turnaround Time Requested (TAT) (please circle) Standard <u>5 day</u> 4 day 72 hour 48 hour 24 hour				Relinquished by <u>[Signature]</u> Date <u>12.9.13</u> Time <u>1830</u>				Received by <u>GETTLER-RYAN FRIDGE</u> Date <u>12.10.13</u> Time <u>0800</u>				Relinquished by <u>[Signature]</u> Date <u>12.11.13</u> Time <u>1530</u>				Received by <u>[Signature]</u> Date <u>12/11/13</u> Time <u>1530</u>																				
8 Data Package (circle if required) Type I - Full Type VI (Raw Data)				EDD (circle if required) EDFFLAT (default) Other:				Relinquished by Commercial Carrier: <u>UPS</u> Date <u>12/11/13</u> Time <u>1630</u>				Received by <u>UPS</u> Date <u>12/11/13</u> Time <u>1530</u>				Temperature Upon Receipt <u>0.3-0.7C</u> Custody Seals Intact? <u>Yes</u>																				

12.12.13 930



# 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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## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron  
L4310  
6001 Bollinger Canyon Rd.  
San Ramon CA 94583

December 11, 2013

Project: 307233

Submittal Date: 12/10/2013

Group Number: 1439644

PO Number: 0015118372

Release Number: SHRILL HOPKINS

State of Sample Origin: CA

Client Sample Description

MW-8-W-131209 Grab Groundwater  
MW-9-W-131209 Grab Groundwater  
MW-10-W-131209 Grab Groundwater  
MW-11-W-131209 Grab Groundwater  
MW-12-W-131209 Grab Groundwater

Lancaster Labs (LL) #

7307196  
7307197  
7307198  
7307199  
7307200

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	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC COPY TO	Chevron	Attn: Anna Avina
ELECTRONIC COPY TO	CRA	Attn: Brian Silva

Respectfully Submitted,



Amek Carter  
Specialist

(717) 556-7252

Sample Description: MW-8-W-131209 Grab Groundwater  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622 MW-8

LL Sample # WW 7307196  
 LL Group # 1439644  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 13:30 by FT Chevron  
 Submitted: 12/10/2013 11:35 L4310  
 Reported: 12/11/2013 22:13 6001 Bollinger Canyon Rd.  
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>Wet Chemistry</b>					
		<b>SM 3500-Fe B modified-1997</b>	<b>ug/l</b>	<b>ug/l</b>	
08344	Ferrous Iron	n.a.	3,200	100	10

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA  
 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
08344	Ferrous Iron	SM 3500-Fe B modified-1997	1	13345834401A	12/11/2013 01:05	Daniel S Smith	10

Sample Description: MW-9-W-131209 Grab Groundwater  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622 MW-9

LL Sample # WW 7307197  
 LL Group # 1439644  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:40 by FT Chevron  
 Submitted: 12/10/2013 11:35 L4310  
 Reported: 12/11/2013 22:13 6001 Bollinger Canyon Rd.  
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>Wet Chemistry</b>					
		<b>SM 3500-Fe B modified-1997</b>	<b>ug/l</b>	<b>ug/l</b>	
08344	Ferrous Iron	n.a.	N.D.	10	1

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA  
 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
08344	Ferrous Iron	SM 3500-Fe B modified-1997	1	13345834401A	12/11/2013 01:05	Daniel S Smith	1

Sample Description: MW-10-W-131209 Grab Groundwater  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622 MW-10

LL Sample # WW 7307198  
 LL Group # 1439644  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 15:15 by FT Chevron  
 Submitted: 12/10/2013 11:35 L4310  
 Reported: 12/11/2013 22:13 6001 Bollinger Canyon Rd.  
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>Wet Chemistry</b>					
		<b>SM 3500-Fe B modified-1997</b>	ug/l	ug/l	
08344	Ferrous Iron	n.a.	2,900	100	10

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA  
 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
08344	Ferrous Iron	SM 3500-Fe B modified-1997	1	13345834401A	12/11/2013 01:05	Daniel S Smith	10

Sample Description: MW-11-W-131209 Grab Groundwater  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622 MW-11

LL Sample # WW 7307199  
 LL Group # 1439644  
 Account # 10904

Project Name: 307233

Collected: 12/09/2013 14:55 by FT Chevron  
 Submitted: 12/10/2013 11:35 L4310  
 Reported: 12/11/2013 22:13 6001 Bollinger Canyon Rd.  
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>Wet Chemistry</b>					
		<b>SM 3500-Fe B modified-1997</b>	ug/l	ug/l	
08344	Ferrous Iron	n.a.	230	10	1

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA  
 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
08344	Ferrous Iron	SM 3500-Fe B modified-1997	1	13345834401A	12/11/2013 01:05	Daniel S Smith	1

**Sample Description:** MW-12-W-131209 Grab Groundwater  
 Facility# 307233 Job# 385876 GRD  
 2259 First St-Livermore T0600196622 MW-12

LL Sample # WW 7307200  
 LL Group # 1439644  
 Account # 10904

**Project Name:** 307233

Collected: 12/09/2013 14:10 by FT Chevron  
 Submitted: 12/10/2013 11:35 L4310  
 Reported: 12/11/2013 22:13 6001 Bollinger Canyon Rd.  
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>Wet Chemistry</b>					
		<b>SM 3500-Fe B modified-1997</b>	ug/l	ug/l	
08344	Ferrous Iron	n.a.	880	20	2

**General Sample Comments**

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
08344	Ferrous Iron	SM 3500-Fe B modified-1997	1	13345834401A	12/11/2013 01:05	Daniel S Smith	2





# Chevron California Region Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 10904 For Eurofins Lancaster Laboratories use only  
 Group # 1439844 Sample # 7307196-200  
 Instructions on reverse side correspond with circled numbers.

1091

1 Client Information				4 Matrix			5 Analyses Requested										6 Remarks			
Facility # <u>SS7307233-OML G-R#385876 Global ID#T0600196622</u> Site Address <u>2255 FIRST STREET, LIVERMORE, CA</u> Chevron PM <u>CRASB</u> Lead Consultant <u>Silva</u> Consultant/Office <u>Getter-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568</u> Consultant Project Mgr. <u>Deanna L. Harding, deanna@grinc.com</u> Consultant Phone # <u>(925) 551-7444 x180</u> Sampler <u>FRANK TEULINONI</u>				<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air			Total Number of Containers BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> TPH-GRO 8015 <input type="checkbox"/> 8260 <input type="checkbox"/> TPH-DRO 8015 without Silica Gel Cleanup <input type="checkbox"/> TPH-DRO 8015 with Silica Gel Cleanup <input type="checkbox"/> 8260 Full Scan Oxygenates Total Lead Method Dissolved Lead Method <u>(SIM) 3500FeB</u> <u>FERROUS IRON</u>										SCR #: _____ <input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run _____ oxy's on highest hit <input type="checkbox"/> Run _____ oxy's on all hits			
2 Sample Identification		Soil Depth	Collected		3 Grab	Composite														
			Date	Time																
<u>MW-8</u>			<u>12.9.13</u>	<u>1330</u>	<input checked="" type="checkbox"/>															
<u>MW-9</u>				<u>1440</u>	<input checked="" type="checkbox"/>															
<u>MW-10</u>				<u>1515</u>	<input checked="" type="checkbox"/>															
<u>MW-11</u>				<u>1455</u>	<input checked="" type="checkbox"/>															
<u>MW-12</u>				<u>1410</u>	<input checked="" type="checkbox"/>															
7 Turnaround Time Requested (TAT) (please circle) Standard <input checked="" type="radio"/> 5 day 72 hour <input type="radio"/> 48 hour <input type="radio"/> 24 hour				Relinquished by <u>[Signature]</u> Date <u>12.9.13</u> Time <u>1700</u>			Received by <u>[Signature]</u> Date _____ Time _____			Relinquished by _____ Date _____ Time _____				Received by _____ Date _____ Time _____				9 Please report DRO w/sgc using 10 grams of silica and also report 1 gram shake results		
8 Data Package (circle if required) Type I - Full Type VI (Raw Data)		EDD (circle if required) EDFFLAT (default) Other: _____		Relinquished by Commercial Carrier: UPS _____ FedEx <input checked="" type="checkbox"/> Other _____			Received by <u>[Signature]</u> Date <u>12/10/13</u> Time <u>1135</u>			Temperature Upon Receipt <u>21</u> °C				Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						

# Explanation of Symbols and Abbreviations

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

<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**

**Inorganic Qualifiers**

<b>A</b>	TIC is a possible aldol-condensation product	<b>B</b>	Value is $<$ CRDL, but $\geq$ IDL
<b>B</b>	Analyte was also detected in the blank	<b>E</b>	Estimated due to interference
<b>C</b>	Pesticide result confirmed by GC/MS	<b>M</b>	Duplicate injection precision not met
<b>D</b>	Compound quantitated on a diluted sample	<b>N</b>	Spike sample not within control limits
<b>E</b>	Concentration exceeds the calibration range of the instrument	<b>S</b>	Method of standard additions (MSA) used for calculation
<b>N</b>	Presumptive evidence of a compound (TICs only)	<b>U</b>	Compound was not detected
<b>P</b>	Concentration difference between primary and confirmation columns $>$ 25%	<b>W</b>	Post digestion spike out of control limits
<b>U</b>	Compound was not detected	<b>*</b>	Duplicate analysis not within control limits
<b>X,Y,Z</b>	Defined in case narrative	<b>+</b>	Correlation coefficient for MSA $<$ 0.995

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

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

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

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