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3:14 pm, Mar 30, 2009

Alameda County  
Environmental Health

**Stacie H. Frerichs**  
Team Lead  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
6001 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 842-9655  
Fax (925) 842-8370

March 27, 2009  
(date)

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

Re: Chevron Facility # 9-0517

Address: 3900 Piedmont Avenue, Oakland, California

I have reviewed the attached report titled First Semi-Annual 2009 Groundwater Monitoring Report and dated March 27, 2009.

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

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

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Stacie H. Frerichs  
Project Manager

Enclosure: Report



**CONESTOGA-ROVERS  
& ASSOCIATES**

2000 Opportunity Dr, Suite 110, Roseville, California 95678  
Telephone: 916-677-3407, ext. 100 Facsimile: 916-677-3687  
[www.CRAworld.com](http://www.CRAworld.com)

March 27, 2009

Reference No. 611995

Mr. Steven Plunkett  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: First Semi-Annual 2009 Groundwater Monitoring Report  
Former Chevron Service Station 9-0517  
3900 Piedmont Avenue  
Oakland, California  
LOP Case #RO0000138


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Dear Mr. Plunkett:

Conestoga-Rovers & Associates (CRA) is submitting the attached *Groundwater Monitoring and Sampling Report* (report) on behalf of Chevron Environmental Management Company (Chevron) for the site referenced above. The report (prepared by Gettler-Ryan Inc. and dated March 12, 2009) presents the results of the monitoring and sampling of wells MW-1 through MW-4 during first quarter 2009. These wells are monitored and sampled on a semi-annual basis during the first and third quarters. Also attached are Figure 1 (Vicinity Map) showing the site location, and Figure 2 (Concentration Map) presenting the first semi-annual 2009 analytical results along with a rose diagram. Please contact Mr. James Kiernan at (916) 751-4102 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

  
Christopher J. Benedict

  
James P. Kiernan, P.E. #C68498

CB/kw/3  
Encl.

Figure 1 Vicinity Map  
Figure 2 Concentration Map – February 19, 2009

Attachment A First Semi-Annual 2009 Groundwater Monitoring and Sampling Report

cc: Ms. Stacie Frerichs, Chevron Environmental Management Company  
Mr. Neil B. and Mrs. Diane C. Goodhue

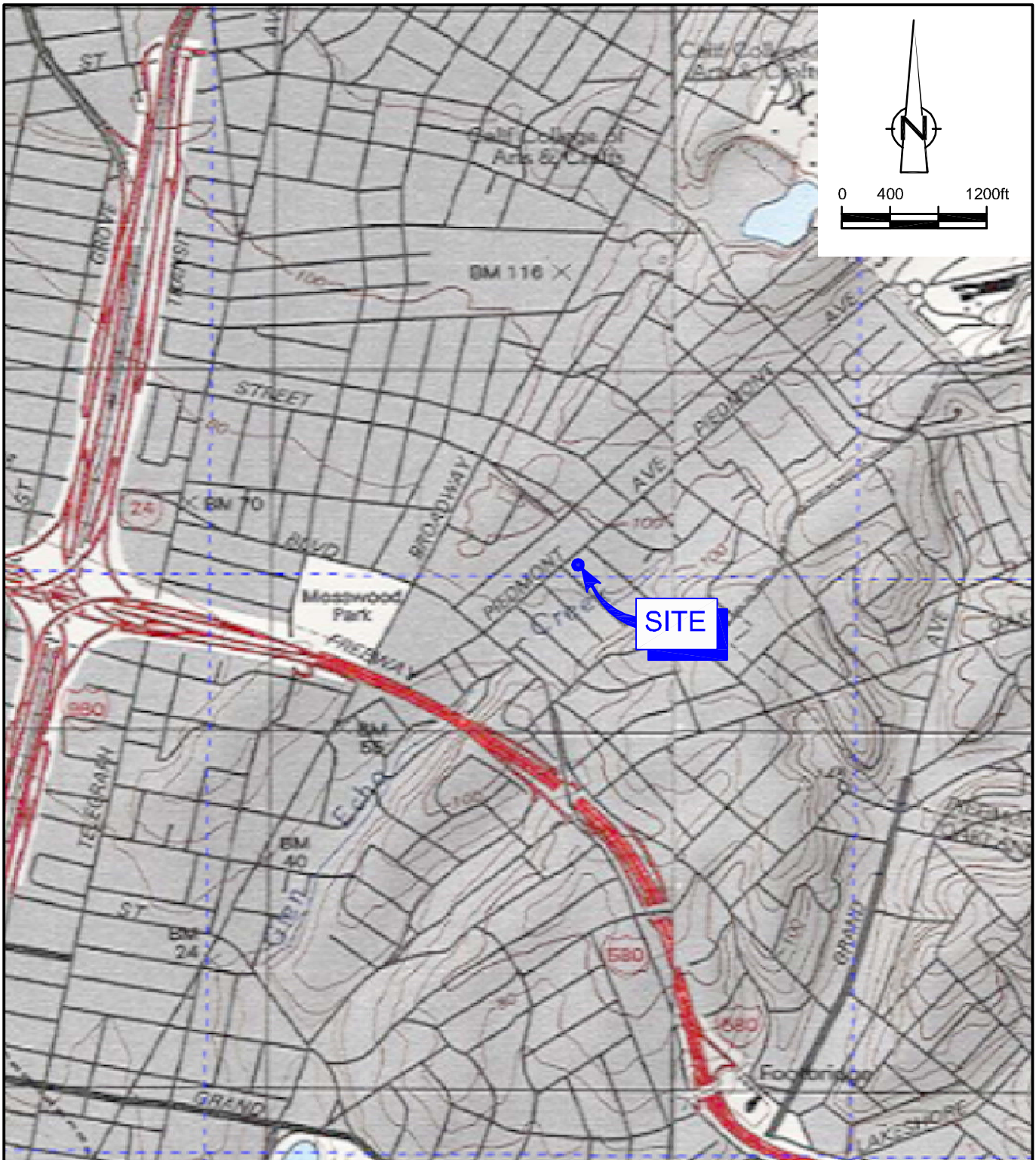


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## FIGURES

ATTACHMENT A

FIRST SEMI-ANNUAL 2009 GROUNDWATER MONITORING AND SAMPLING REPORT



SOURCE: TOPO! MAPS.

figure 1  
 VICINITY MAP  
 FORMER CHEVRON SERVICE 9-0517  
 3900 PIEDMONT AVENUE  
 Oakland, California



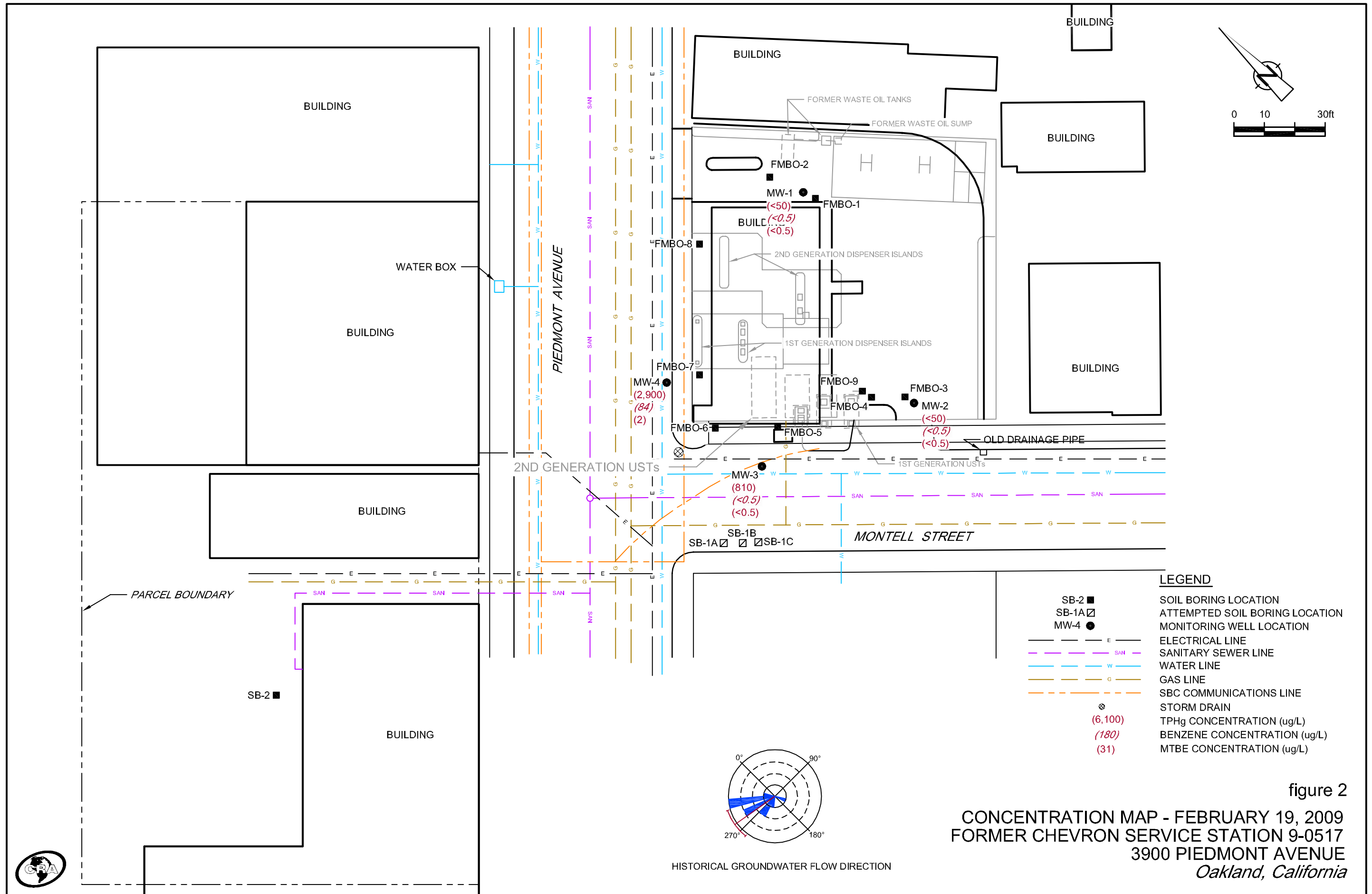


figure 2  
 CONCENTRATION MAP - FEBRUARY 19, 2009  
 FORMER CHEVRON SERVICE STATION 9-0517  
 3900 PIEDMONT AVENUE  
 Oakland, California

ATTACHMENT A

FIRST SEMI-ANNUAL 2009 GROUNDWATER MONITORING AND SAMPLING REPORT





# GETTLER-RYAN Inc.



## TRANSMITTAL

March 16, 2009  
G-R #386420

TO: Mr. James Kiernan  
Conestoga-Rovers & Associates  
2000 Opportunity Drive, Suite 110  
Roseville, California 95678

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

RE: **Former Chevron Service Station  
#9-0517 (MTI)  
3900 Piedmont Avenue  
Oakland, California  
RO 0000138**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
2	March 12, 2009	Groundwater Monitoring and Sampling Report First Semi-Annual Event of February 19, 2009

### COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced report for **your use and distribution to the following:**

Ms. Stacie H. Frerichs, Chevron Environmental Management Company, 6111 Bollinger Canyon Road, Room 3596, San Ramon, CA 94583

Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to **March 30, 2009**, at which time this final report will be distributed to the following:

cc: Mr. Steven Plunkett, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577 (No Hard Copy-UPLOAD TO ALAMEDA CO.)  
Mr. Neil B. Goodhue and Mrs. Diane C. Goodhue, 300 Hillside Avenue, Piedmont, CA 94611

Enclosures

trans/9-0517-SHF





Stacie H. Frerichs  
Team Lead  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
6001 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 842-9655  
Fax (925) 842-8370

March 16, 2009  
(date)

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

Re: Chevron Facility # 9-0517

Address: 3900 Piedmont Ave., Oakland, California

I have reviewed the attached routine groundwater monitoring report dated March 16, 2009.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Gettler-Ryan, Inc., 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.

Sincerely,

A handwritten signature in black ink that reads "Stacie H. Frerichs".

Stacie H. Frerichs  
Project Manager

Enclosure: Report





# GETTLER-RYAN Inc.



March 12, 2009  
G-R Job #386420

Ms. Stacie H. Frerichs  
Chevron Environmental Management Company  
6111 Bollinger Canyon Road, Room 3596  
San Ramon, CA 94583

**RE: First Semi-Annual Event of February 19, 2009**  
Groundwater Monitoring & Sampling Report  
Former Chevron Service Station #9-0517  
3900 Piedmont Avenue  
Oakland, California

Dear Ms. H. Frerichs:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached. All groundwater and decontamination water generated during sampling activities was removed from the site, per the Standard Operating Procedure.

Please call if you have any questions or comments regarding this report. Thank you.

Sincerely,

Deanna L. Harding  
Project Coordinator

Douglas J. Lee  
Senior Geologist, P.G. No. 6882

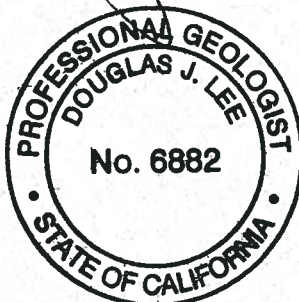
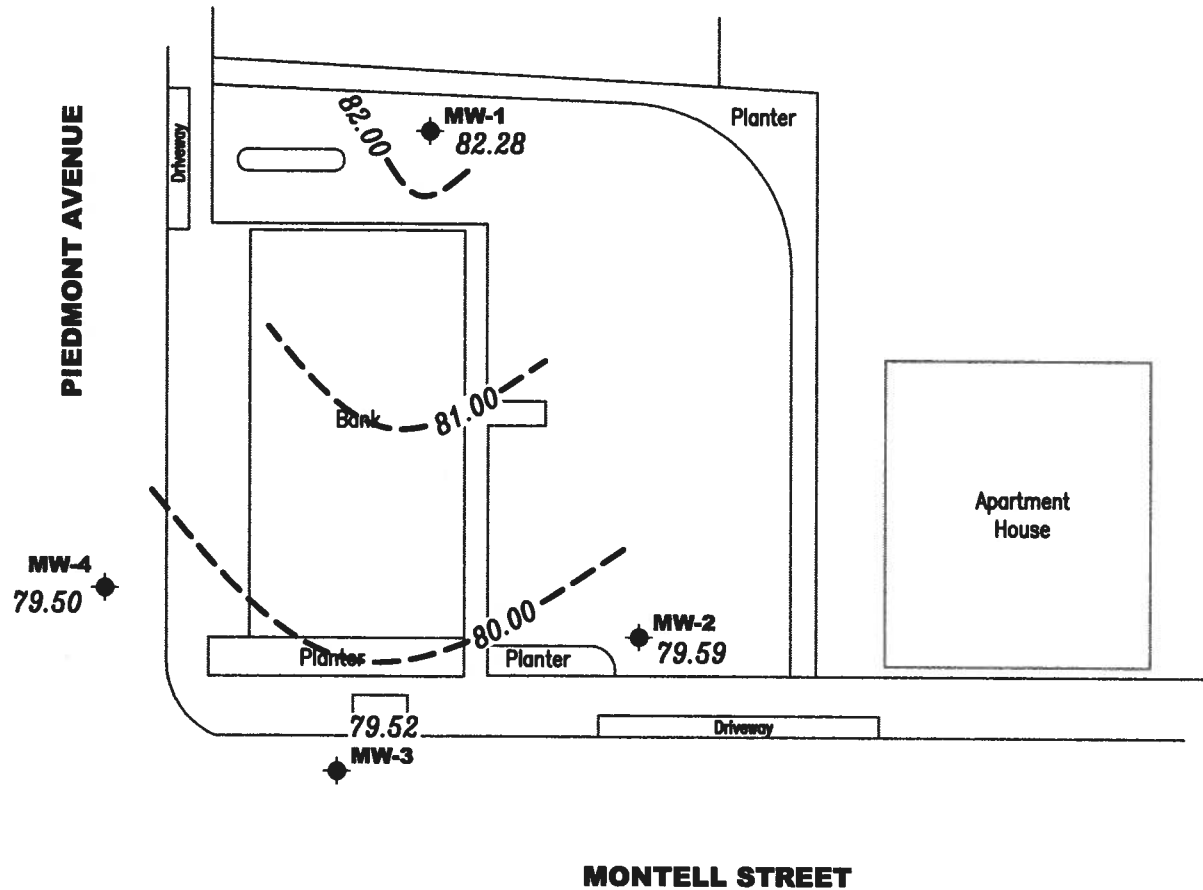


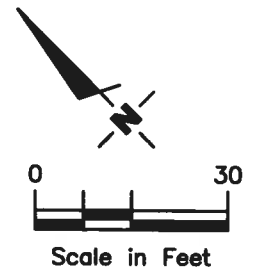
Figure 1: Potentiometric Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

**EXPLANATION**

- ◆ Groundwater monitoring well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- 99.99--- Groundwater elevation contour, dashed where inferred



Approximate groundwater flow direction at a gradient of 0.03 Ft./Ft.



Source: Figure modified from drawing provided by RRM engineering contracting firm.

**GETTLER - RYAN INC.**  
 6747 Sierra Court, Suite J  
 Dublin, CA 94568 (925) 551-7555

**POTENTIOMETRIC MAP**  
 Former Chevron Service Station #9-0517  
 3900 Piedmont Avenue  
 Oakland, California

FIGURE  
**1**

PROJECT NUMBER  
**386420**

REVIEWED BY

DATE  
 February 19, 2009

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-0517  
3900 Piedmont Avenue  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-1</b>									
08/03/98	87.89	75.46	12.43	<50	<0.5	<0.5	<0.5	<0.5	<2.5
11/23/98	87.89	78.84	9.05	<50	<0.5	<0.5	<0.5	<0.5	<2.0
02/08/99	87.89	81.39	6.50	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/07/99	87.89	80.76	7.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0
08/23/99	87.89	78.74	9.15	<50	<0.5	<0.5	<0.5	<0.5	<2.5
11/03/99	87.89	78.35	9.54	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/15/00	87.89	81.99	5.90	<50	<0.5	<0.5	<0.5	<0.5	<5.0
05/12/00 <sup>3</sup>	87.89	80.84	7.05	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/31/00	87.89	79.49	8.40	<50	<0.50	<0.50	<0.50	<0.50	<2.5
10/30/00	87.89	79.24	8.65	<50.0	<0.500	<0.500	<0.500	<1.50	<2.50
02/27/01	87.89	82.06	5.83	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
05/15/01	87.89	80.18	7.71	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
08/23/01	87.89	DRY	--	--	--	--	--	--	--
02/25/02	87.89	81.18	6.71	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/05/02	87.89	79.00	8.89	<50	<0.50	<0.50	<0.50	<1.5	<2.5
02/11/03	87.89	80.53	7.36	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/09/03 <sup>5</sup>	87.89	78.42	9.47	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/25/04 <sup>5</sup>	87.89	81.59	6.30	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/04 <sup>5</sup>	87.89	77.77	10.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/11/05 <sup>5</sup>	87.89	81.10	6.79	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/15/05 <sup>5</sup>	87.89	79.00	8.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/10/06 <sup>5</sup>	87.89	81.24	6.65	<50	1	<0.5	<0.5	<0.5	<0.5
08/02/06 <sup>5</sup>	87.89	80.16	7.73	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/09/07 <sup>5</sup>	87.89	80.12	7.77	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/07 <sup>5</sup>	87.89	78.30	9.59	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/18/08 <sup>5</sup>	87.89	80.48	7.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/12/08 <sup>5</sup>	87.89	78.11	9.78	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/19/09 <sup>5</sup>	87.89	82.28	5.61	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-2</b>									
08/03/98	86.09	74.75	11.34	<50	<0.5	<0.5	<0.5	<0.5	3.4
11/23/98	86.09	79.19	6.90	<50	<0.5	<0.5	<0.5	<0.5	<2.0
02/08/99	86.09	80.86	5.23	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/07/99	86.09	79.97	6.12	<50	<0.5	<0.5	<0.5	<0.5	<5.0
08/23/99	86.09	79.68	6.41	<50	<0.5	<0.5	<0.5	<0.5	<2.5



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-0517  
3900 Piedmont Avenue  
Oakland, California

WELL ID/ DATE	TOC* ( <i>ft.</i> )	GWE ( <i>msl</i> )	DTW ( <i>ft.</i> )	TPH-GRO ( $\mu\text{g/L}$ )	B ( $\mu\text{g/L}$ )	T ( $\mu\text{g/L}$ )	E ( $\mu\text{g/L}$ )	X ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )
<b>MW-2 (cont)</b>									
11/03/99	86.09	78.80	7.29	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/15/00	86.09	81.60	4.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0
05/12/00	86.09	80.19	5.90	4,000 <sup>3</sup>	240	26	100	76	<100
07/31/00	86.09	79.51	6.58	<50	<0.50	<0.50	<0.50	<0.50	<2.5
10/30/00	86.09	79.86	6.23	<50.0	<0.500	2.92	<0.500	1.88	4.89
02/27/01	86.09	81.49	4.60	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
05/15/01	86.09	79.79	6.30	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
08/23/01	86.09	78.81	7.28	<50	<0.50	<0.50	<0.50	<0.50	<2.5
02/25/02	86.09	80.48	5.61	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/05/02	86.09	78.99	7.10	<50	<0.50	<0.50	<0.50	<1.5	<2.5
02/11/03	86.09	78.64	7.45	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/09/03 <sup>5</sup>	86.09	78.44	7.65	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/25/04 <sup>5</sup>	86.09	81.24	4.85	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/04 <sup>5</sup>	86.09	77.86	8.23	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/11/05 <sup>5</sup>	86.09	80.16	5.93	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/15/05 <sup>5</sup>	86.09	78.50	7.59	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/10/06 <sup>5</sup>	86.09	80.36	5.73	<50	0.6	<0.5	<0.5	<0.5	<0.5
08/02/06 <sup>5</sup>	86.09	79.14	6.95	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/09/07 <sup>5</sup>	86.09	79.80	6.29	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/07 <sup>5</sup>	86.09	78.69	7.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/18/08 <sup>5</sup>	86.09	79.62	6.47	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/12/08 <sup>5</sup>	86.09	79.01	7.08	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/19/09 <sup>5</sup>	86.09	79.59	6.50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-3</b>									
08/03/98	86.28	74.20	12.08	4000	160	<5.0	<5.0	73	180
11/23/98	86.28	78.59	7.69	4000	67.7	7.56	17.1	24.5	41.2
02/08/99	86.28	80.01	6.27	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/07/99	86.28	79.32	6.96	1800	53.6	8.96	33	18.6	21.4
08/23/99	86.28	78.36	7.92	3970	155	24	88.8	39.8	185
11/03/99	86.28	78.36	7.92	3320	108	19.9	98.4	44.8	<25
02/15/00	86.28	80.54	5.74	779	26.7	3.82	15.4	4.24	<12.5
05/12/00	86.28	79.52	6.76	12,000 <sup>3</sup>	3,100	120	980	1,400	820
07/31/00	86.28	78.98	7.30	1,200 <sup>3</sup>	32	<5.0	11	7.3	39
10/30/00	86.28	79.26	7.02	3,300 <sup>4</sup>	119	<5.00	40.0	<15.0	<25.0

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-0517  
3900 Piedmont Avenue  
Oakland, California

WELL ID/ DATE	TOC* ( <i>fl.</i> )	GWE ( <i>msl</i> )	DTW ( <i>fl.</i> )	TPH-GRO ( <i>µg/L</i> )	B ( <i>µg/L</i> )	T ( <i>µg/L</i> )	E ( <i>µg/L</i> )	X ( <i>µg/L</i> )	MTBE ( <i>µg/L</i> )
<b>MW-3 (cont)</b>									
02/27/01	86.28	80.39	5.89	432 <sup>3</sup>	15.5	1.53	14.9	1.06	15.7
05/15/01	86.28	79.21	7.07	3,220 <sup>3</sup>	96.4	12.6	11.5	11.6	128
08/23/01	86.28	78.23	8.05	2,300	48	<10	<10	<10	100
02/25/02	86.28	79.55	6.73	3,100	27	2.1	4.8	6.6	<2.5
08/05/02	86.28	78.33	7.95	4,100	87	21	90	47	21
02/11/03	86.28	79.23	7.05	3,700	21	2.3	4.4	9.0	<20
08/09/03 <sup>5</sup>	86.28	78.05	8.23	1,600	12	1	2	4	0.7
02/25/04 <sup>5</sup>	86.28	80.43	5.85	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/04 <sup>5</sup>	86.28	77.23	9.05	3,000	21	3	3	9	<0.5
02/11/05 <sup>5</sup>	86.28	79.26	7.02	540	15	1	<0.5	0.8	<0.5
08/15/05 <sup>5</sup>	86.28	77.87	8.41	2,600	11	1	1	2	<0.5
02/10/06 <sup>5</sup>	86.28	79.35	6.93	970	20	2	<0.5	3	<0.5
08/02/06 <sup>5</sup>	86.28	78.28	8.00	1,000	16	1	<0.5	3	<0.5
02/09/07 <sup>5</sup>	86.28	78.95	7.33	590	3	<0.5	<0.5	0.5	<0.5
08/23/07 <sup>5</sup>	86.28	77.45	8.83	2,700	18	4	2	8	<0.5
02/18/08 <sup>5</sup>	86.28	79.01	7.27	1,300	8	1	0.6	1	<0.5
08/12/08 <sup>5</sup>	86.28	76.70	9.58	2,000	21	3	1	4	<0.5
02/19/09 <sup>5</sup>	86.28	79.52	6.76	810	<0.5	<0.5	<0.5	1	<0.5
<b>MW-4</b>									
08/03/98	87.22	74.30	12.92	1900	110	12	<0.5	55	130
11/23/98	87.22	77.82	9.40	4080	136	17.8	37.2	30.1	51.8
02/08/99 <sup>1</sup>	87.22	79.40	7.82	2900	150	16	<5.0	15	230/30.7 <sup>2</sup>
05/07/99	87.22	79.80	7.42	6050	161	<25	39.8	36.9	<250/30.2 <sup>2</sup>
08/23/99	87.22	77.83	9.39	3930	203	37.6	58.6	42.2	255
11/03/99	87.22	77.41	9.81	5350	324	44.7	91.5	56.1	<50
02/15/00	87.22	79.50	7.72	4080	161	27.7	31.1	39.1	73.9
05/12/00	87.22	79.31	7.91	3,600 <sup>3</sup>	170	27	49	64	170
07/31/00	87.22	78.57	8.65	2,900 <sup>3</sup>	160	20	15	56	170
10/30/00	87.22	78.14	9.08	5,630 <sup>4</sup>	301	17.8	11.8	51.5	<25.0
02/27/01	87.22	79.92	7.30	2,140 <sup>3</sup>	95.1	12.8	53.4	43.0	235
05/15/01	87.22	79.07	8.15	4,580 <sup>3</sup>	200	44.1	46.3	51.7	172
08/23/01	87.22	77.89	9.33	2,700	250	44	21	72	130
02/25/02	87.22	79.42	7.80	4,100	100	18	27	39	<10
08/05/02	87.22	80.12	7.10	4,100	130	18	50	20	<10

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-0517  
3900 Piedmont Avenue  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-4 (cont)</b>									
02/11/03	87.22	79.10	8.12	4,100	100	23	20	51	<50
08/09/03 <sup>5</sup>	87.22	77.67	9.55	3,700	110	24	10	45	8
02/25/04 <sup>5</sup>	87.22	79.16	8.06	5,400	94	28	34	49	5
08/23/04 <sup>5</sup>	87.22	77.03	10.19	5,100	100	26	7	43	5
02/11/05 <sup>5</sup>	87.22	79.25	7.97	3,900	58	16	25	16	2
08/15/05 <sup>5</sup>	87.22	78.40	8.82	2,400	76	16	11	26	3
02/10/06 <sup>5</sup>	87.22	79.41	7.81	1,600	68	16	8	27	4
08/10/06 <sup>5</sup>	87.22	78.64	8.58	2,500	100	19	5	30	3
02/09/07 <sup>5</sup>	87.22	78.51	8.71	6,200	200	39	16	52	3
08/23/07 <sup>5</sup>	87.22	76.84	10.38	5,800	190	48	20	61	3
02/18/08 <sup>5</sup>	87.22	79.11	8.11	4,900	110	24	11	32	2
08/12/08 <sup>5</sup>	87.22	76.64	10.58	6,100	180	31	9	52	3
02/19/09 <sup>5</sup>	87.22	79.50	7.72	2,900	84	20	5	24	2
<b>TRIP BLANK</b>									
08/03/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
11/23/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
02/08/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/07/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
08/23/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
11/03/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/15/00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
05/12/00	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/31/00	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
10/30/00	--	--	--	<50.0	<0.500	<0.500	<0.500	<1.50	<2.50
02/27/01	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
05/15/01	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
08/23/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
<b>QA</b>									
02/25/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/05/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
02/11/03	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/09/03 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/25/04 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/04 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-0517  
3900 Piedmont Avenue  
Oakland, California

WELL ID/ DATE	TOC* (fl.)	GWE (msl)	DTW (ft.)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
QA (cont)									
02/11/05 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/15/05 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/10/06 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/02/06 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/09/07 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/07 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/18/08 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/12/08 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/19/09 <sup>5</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-0517  
3900 Piedmont Avenue  
Oakland, California

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**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to May 12, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing

(ft.) = Feet

GWE = Groundwater Elevation

(msl) = Mean sea level

DTW = Depth to Water

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl Tertiary Butyl Ether

(µg/L) = Micrograms per liter

-- = Not Measured/Not Analyzed

QA = Quality Assurance/Trip Blank

\* TOC elevations are referenced to msl.

<sup>1</sup> Chromatogram pattern indicates gas and an unidentified hydrocarbon.

<sup>2</sup> Confirmation run.

<sup>3</sup> Laboratory report indicates gasoline C6-C12.

<sup>4</sup> Laboratory report indicates hydrocarbon pattern present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.

<sup>5</sup> BTEX and MTBE by EPA Method 8260.



## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

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, suction, Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. 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 possible. 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. 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. For sampling sets greater than 20 samples, 5% trip blanks are included. 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 IWM to Chemical Waste Management located in Kettleman Hills, California.



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-0517 Job Number: 386420  
 Site Address: 3900 Piedmont Avenue Event Date: 2-19-09 (inclusive)  
 City: Oakland, CA Sampler: Joc

Well ID: MW-1 Date Monitored: 2-19-09  
 Well Diameter: 2 in.  
 Total Depth: 16.76 ft.  
 Depth to Water: 5.61 ft.  Check if water column is less than 0.50 ft.  
11.15 xVF 0.17 = 1.90 x3 case volume = Estimated Purge Volume: 6 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.84

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 \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): 0715 Weather Conditions: Clear  
 Sample Time/Date: 0755 / 2-19-09 Water Color: clear Odor: Y10  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 6.12

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>0725</u>	<u>2</u>	<u>7.17</u>	<u>1285</u>	<u>16.7</u>		
<u>0732</u>	<u>4</u>	<u>7.27</u>	<u>1316</u>	<u>17.1</u>		
<u>0740</u>	<u>6</u>	<u>7.34</u>	<u>1319</u>	<u>17.2</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8260)

### COMMENTS:

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



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-0517 Job Number: 386420  
 Site Address: 3900 Piedmont Avenue Event Date: 2-19-09 (inclusive)  
 City: Oakland, CA Sampler: Soe

Well ID: MW-2 Date Monitored: 2-19-09  
 Well Diameter: 2 in.  
 Total Depth: 16.61 ft.  
 Depth to Water: 6.50 ft.

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.52  
 xVF 0.17 = 1.72 x3 case volume = Estimated Purge Volume: 5.5 gal.

### Purge Equipment:

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

### Sampling Equipment:

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

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

Start Time (purge): 0808 Weather Conditions: clear  
 Sample Time/Date: 0845 12-19-09 Water Color: clear Odor: Y O  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 7.76

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>MS</u> )	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>0820</u>	<u>1.5</u>	<u>7.36</u>	<u>1397</u>	<u>17.4</u>	_____	_____
<u>0825</u>	<u>3</u>	<u>7.30</u>	<u>1382</u>	<u>17.6</u>	_____	_____
<u>0833</u>	<u>5.5</u>	<u>7.35</u>	<u>1384</u>	<u>17.1</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX+MTBE(8260)</u>

### COMMENTS:

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



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-0517 Job Number: 386420  
 Site Address: 3900 Piedmont Avenue Event Date: 2-19-09 (inclusive)  
 City: Oakland, CA Sampler: Sac

Well ID: MW-3  
 Well Diameter: 2 in.  
 Total Depth: 17.71 ft.  
 Depth to Water: 6.76 ft.  
10.95 xVF 0.17 = 1.86

Date Monitored: 2-19-09

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.95

### Purge Equipment:

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

### Sampling Equipment:

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

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Completed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: 0 ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbant Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0900 Weather Conditions: clear  
 Sample Time/Date: 0942 2-19-09 Water Color: clear Odor: 01 N Strong  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 7.33

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>0912</u>	<u>2</u>	<u>6.72</u>	<u>925</u>	<u>17.3</u>	_____	_____
<u>0920</u>	<u>4</u>	<u>6.70</u>	<u>889</u>	<u>17.1</u>	_____	_____
<u>0930</u>	<u>6</u>	<u>6.68</u>	<u>893</u>	<u>17.6</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX+MTBE(8260)</u>

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

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



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-0517 Job Number: 386420  
 Site Address: 3900 Piedmont Avenue Event Date: 2-19-09 (inclusive)  
 City: Oakland, CA Sampler: Joe

Well ID: MW-4  
 Well Diameter: 2 in.  
 Total Depth: 16.30 ft.  
 Depth to Water: 7.72 ft.  
8.58 xVF 0.17 = 1.46 x3 case volume = Estimated Purge Volume: 4.5 gal.

Date Monitored: 2-19-09

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.43

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

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

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

Start Time (purge): 1000 Weather Conditions: clear  
 Sample Time/Date: 1035 2-19-09 Water Color: clear Odor: DI N Strong  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.13

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>1000</u>	<u>1.5</u>	<u>6.64</u>	<u>752</u>	<u>17.8</u>		
<u>1016</u>	<u>3</u>	<u>6.68</u>	<u>748</u>	<u>17.2</u>		
<u>1022</u>	<u>4.5</u>	<u>6.67</u>	<u>756</u>	<u>17.6</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX+MTBE(8260)</u>

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

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



# Chevron California Region Analysis Request/Chain of Custody



022009-08

For Lancaster Laboratories use only  
 Acct. #: 12099 Sample # 5605295-99 Group #: 009776

CRA MTI Project #: 61H-1995

Analyses Requested

# 1133168

Facility #: <u>SS19-0517 G-R#386420 Global ID#T0600T02248</u> Site Address: <u>3900 PIEDMONT AVENUE, OAKLAND, CA</u> Site Address: <u>MTI</u> <u>CRAKJ</u> Chevron PM: <u>G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568</u> <u>Lead Consultant</u> Consultant/Office: <u>Deanna L. Harding (deanna@grinc.com)</u> Consultant Prj. Mgr.: <u>925-551-7555</u> Consultant Phone #: <u>925-551-7555</u> Fax #: <u>925-551-7899</u> Sampler: <u>JOE AJEMIAN</u>			Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Preservation Codes <input type="checkbox"/> BTEX + MTBE 8260 <input type="checkbox"/> 8021 <input type="checkbox"/> TPH 8015 MOD GRO <input type="checkbox"/> TPH 8015 MOD DRO <input type="checkbox"/> Silica Gel Cleanup <input type="checkbox"/> 8260 full scan Oxygenates Total Lead Method Dissolved Lead Method										Preservative Codes H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other <input type="checkbox"/> J value reporting needed <input checked="" type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 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				
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8260	8021	TPH 8015 MOD GRO	TPH 8015 MOD DRO	Silica Gel Cleanup	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method	Comments / Remarks
<u>QA</u>			<input checked="" type="checkbox"/>						<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
<u>MW-1</u>	<u>2-19-09</u>	<u>0755</u>	<input checked="" type="checkbox"/>						<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
<u>MW-2</u>		<u>0845</u>	<input checked="" type="checkbox"/>						<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
<u>MW-3</u>		<u>0942</u>	<input checked="" type="checkbox"/>						<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
<u>MW-4</u>		<u>1035</u>	<input checked="" type="checkbox"/>						<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								

Turnaround Time Requested (TAT) (please circle) <input checked="" type="radio"/> 24 hour <input type="radio"/> 72 hour <input type="radio"/> 48 hour <input type="radio"/> 4 day <input type="radio"/> 5 day			Relinquished by: <u>[Signature]</u> Date: <u>2-20-09</u> Time: <u>1355</u>		Received by: <u>[Signature]</u> Date: <u>2/20/09</u> Time: <u>1355</u>	
Data Package Options (please circle if required) QC Summary Type I - Full <b>EDF/EDD</b> Type VI (Raw Data) <input type="checkbox"/> Coelt Deliverable not needed WIP (RWQCB) Disk			Relinquished by: <u>[Signature]</u> Date: <u>29 FEB 09</u> Time: <u>1630</u>		Received by: <u>FED EX</u> Date: Date Time	
			Relinquished by Commercial Carrier: UPS <input checked="" type="checkbox"/> FedEx Other		Received by: <u>[Signature]</u> Date: <u>2/20/09</u> Time: <u>0940</u>	
			Temperature Upon Receipt: <u>14.32</u> °C		Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	



# Analysis Report

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

## ANALYTICAL RESULTS

Prepared for:

Chevron c/o CRA  
Suite 110  
2000 Opportunity Drive  
Roseville CA 95678

916-677-3407

Prepared by:

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

RECEIVED

MAR 04 2009

GETTLER-RYAN INC  
GENERAL CONTRACTOR

## SAMPLE GROUP

The sample group for this submittal is 1133168. Samples arrived at the laboratory on Saturday, February 21, 2009. The PO# for this group is 90517 and the release number is MTI.

### Client Description

QA-T-090219 NA Water  
MW-1-W-090219 Grab Water  
MW-2-W-090219 Grab Water  
MW-3-W-090219 Grab Water  
MW-4-W-090219 Grab Water

### Lancaster Labs Number

5605295  
5605296  
5605297  
5605298  
5605299

ELECTRONIC      Gettler-Ryan, Inc.  
COPY TO

Attn: Cheryl Hansen



## **Analysis Report**

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • [www.lancasterlabs.com](http://www.lancasterlabs.com)

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

Respectfully Submitted,

A handwritten signature in cursive script that reads "Marla S. Lord".

**Marla S. Lord**  
**Senior Specialist**

Lancaster Laboratories Sample No. **WW5605295**

Group No. **1133168**

**QA-T-090219 NA Water**  
**Facility# 90517 Job# 386420 MTI# 61H-1995 GRD**  
**3900 Piedmont-Oakland T0600102248 QA**  
 Collected: 02/19/2009

Account Number: 12099

Submitted: 02/21/2009 09:40  
 Reported: 03/03/2009 at 21:26  
 Discard: 04/03/2009

Chevron c/o CRA  
 Suite 110  
 2000 Opportunity Drive  
 Roseville CA 95678

PAOQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	Detection Limit 50	ug/l	1
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

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

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	02/27/2009 03:54	Tyler O Griffin	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	02/25/2009 14:17	Anita M Dale	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/27/2009 03:54	Tyler O Griffin	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/25/2009 14:17	Anita M Dale	1



# Analysis Report

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Lancaster Laboratories Sample No. **WW5605296** Group No. **1133168**

**MW-1-W-090219 Grab Water**  
**Facility# 90517 Job# 386420 MTI# 61H-1995 GRD**  
**3900 Piedmont-Oakland T0600102248 MW-1**  
 Collected: 02/19/2009 07:55 by JA

Account Number: 12099

Submitted: 02/21/2009 09:40  
 Reported: 03/03/2009 at 21:26  
 Discard: 04/03/2009

Chevron c/o CRA  
 Suite 110  
 2000 Opportunity Drive  
 Roseville CA 95678

PA001

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	ug/l	1
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

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

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	02/27/2009 10:26	Tyler O Griffin	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	02/25/2009 14:38	Anita M Dale	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/27/2009 10:26	Tyler O Griffin	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/25/2009 14:38	Anita M Dale	1

**Lancaster Laboratories Sample No. WW5605297**
**Group No. 1133168**
**MW-2-W-090219 Grab Water**
**Facility# 90517 Job# 386420 MTI# 61H-1995 GRD**
**3900 Piedmont-Oakland T0600102248 MW-2**
**Collected: 02/19/2009 08:45 by JA**
**Account Number: 12099**
**Submitted: 02/21/2009 09:40**
**Reported: 03/03/2009 at 21:26**
**Discard: 04/03/2009**
**Chevron c/o CRA**
**Suite 110**
**2000 Opportunity Drive**
**Roseville CA 95678**

PA002

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	Detection Limit 50	ug/l	1
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

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

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	02/27/2009 10:51	Tyler O Griffin	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	02/25/2009 14:59	Anita M Dale	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/27/2009 10:51	Tyler O Griffin	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/25/2009 14:59	Anita M Dale	1

Lancaster Laboratories Sample No. WW5605298

Group No. 1133168

MW-3-W-090219 Grab Water  
 Facility# 90517 Job# 386420 MTI# 61H-1995 GRD  
 3900 Piedmont-Oakland T0600102248 MW-3  
 Collected: 02/19/2009 09:42 by JA

Account Number: 12099

Submitted: 02/21/2009 09:40  
 Reported: 03/03/2009 at 21:26  
 Discard: 04/03/2009

Chevron c/o CRA  
 Suite 110  
 2000 Opportunity Drive  
 Roseville CA 95678

PAO03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01728	TPH-GRO N. CA water C6-C12	n.a.	810	Detection Limit	50 ug/l	1
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	1	0.5	ug/l	1

State of California Lab Certification No. 2116

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

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	02/27/2009 11:15	Tyler O Griffin	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	02/25/2009 15:21	Anita M Dale	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/27/2009 11:15	Tyler O Griffin	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/25/2009 15:21	Anita M Dale	1



# Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW5605299

Group No. 1133168

MW-4-W-090219 Grab Water  
Facility# 90517 Job# 386420 MTI# 61H-1995 GRD  
3900 Piedmont-Oakland T0600102248 MW-4  
Collected: 02/19/2009 10:35 by JA

Account Number: 12099

Submitted: 02/21/2009 09:40  
Reported: 03/03/2009 at 21:26  
Discard: 04/03/2009

Chevron c/o CRA  
Suite 110  
2000 Opportunity Drive  
Roseville CA 95678

PA004

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01728	TPH-GRO N. CA water C6-C12	n.a.	2,900	Detection Limit 250	ug/l	5
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	2	0.5	ug/l	1
05401	Benzene	71-43-2	84	0.5	ug/l	1
05407	Toluene	108-88-3	20	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	5	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	24	0.5	ug/l	1

State of California Lab Certification No. 2116

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

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	03/02/2009 21:33	Tyler O Griffin	5
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	02/25/2009 15:43	Anita M Dale	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/02/2009 21:33	Tyler O Griffin	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/25/2009 15:43	Anita M Dale	1



## Quality Control Summary

 Client Name: Chevron c/o CRA  
 Reported: 03/03/09 at 09:26 PM

Group Number: 1133168

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

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>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: 09057A08A TPH-GRO N. CA water C6-C12	N.D.	50.	Sample number(s): 5605295-5605298 ug/l	118	118	75-135	0	30
Batch number: 09061A20A TPH-GRO N. CA water C6-C12	N.D.	50.	Sample number(s): 5605299 ug/l	100	100	75-135	0	30
Batch number: F090562AA Methyl Tertiary Butyl Ether	N.D.	0.5	Sample number(s): 5605295-5605299 ug/l	89		78-117		
Benzene	N.D.	0.5	ug/l	87		80-116		
Toluene	N.D.	0.5	ug/l	89		80-115		
Ethylbenzene	N.D.	0.5	ug/l	88		80-113		
Xylene (Total)	N.D.	0.5	ug/l	90		81-114		

### 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: 09057A08A TPH-GRO N. CA water C6-C12	118		Sample number(s): 5605295-5605298 63-154			UNSPK: 5605297			
Batch number: 09061A20A TPH-GRO N. CA water C6-C12	136		Sample number(s): 5605299 63-154			UNSPK: P607806			
Batch number: F090562AA Methyl Tertiary Butyl Ether	98	98	Sample number(s): 5605295-5605299 72-126	0	30	UNSPK: P605562			
Benzene	97	98	80-126	1	30				
Toluene	99	97	80-125	2	30				
Ethylbenzene	102	100	77-125	2	30				
Xylene (Total)	103	101	79-125	2	30				

### Surrogate Quality Control

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

Analysis Name: TPH-GRO N. CA water C6-C12  
 Batch number: 09057A08A  
 Trifluorotoluene-F

\*- 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 c/o CRA  
Reported: 03/03/09 at 09:26 PM

Group Number: 1133168

### Surrogate Quality Control

5605295	102
5605296	101
5605297	102
5605298	116
Blank	102
LCS	106
LCSD	108
MS	108

Limits: 63-135

Analysis Name: TPH-GRO N. CA water C6-C12  
Batch number: 09061A20A  
Trifluorotoluene-F

5605299	107
Blank	84
LCS	120
LCSD	117
MS	129

Limits: 63-135

Analysis Name: BTEX+MTBE by 8260B  
Batch number: F090562AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5605295	96	95	89	85
5605296	95	95	89	86
5605297	97	96	90	86
5605298	96	97	95	97
5605299	94	92	93	96
Blank	94	94	90	87
LCS	94	94	91	97
MS	93	93	90	99
MSD	91	94	89	97

Limits: 80-116

77-113

80-113

78-113

\*- 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.

## Lancaster Laboratories Explanation of Symbols and Abbreviations

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

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>Cal</b>	(diet) calories	<b>lb.</b>	pound(s)
<b>meq</b>	milliequivalents	<b>kg</b>	kilogram(s)
<b>g</b>	gram(s)	<b>mg</b>	milligram(s)
<b>ug</b>	microgram(s)	<b>l</b>	liter(s)
<b>ml</b>	milliliter(s)	<b>ul</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>fib &gt;5 um/ml</b>	fibers greater than 5 microns in length per ml
<b>&lt;</b>	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.		

### U.S. EPA data qualifiers:

Organic Qualifiers	Inorganic Qualifiers
<b>A</b> TIC is a possible aldol-condensation product	<b>B</b> Value is <CRDL, but ≥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 amount 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>J</b> Estimated value	<b>U</b> Compound was not detected
<b>N</b> Presumptive evidence of a compound (TICs only)	<b>W</b> Post digestion spike out of control limits
<b>P</b> Concentration difference between primary and confirmation columns >25%	<b>*</b> Duplicate analysis not within control limits
<b>U</b> Compound was not detected	<b>+</b> Correlation coefficient for MSA <0.995
<b>X,Y,Z</b> Defined in case narrative	

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

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

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