



**RECEIVED**

3:16 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 # 9-2029

Address: 890 West MacArthur Boulevard, Oakland, California

I have reviewed the attached report titled First Quarter 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. 611974

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

Re: First Quarter 2009 Groundwater Monitoring Report  
Former Chevron Service Station 9-2029  
890 West MacArthur Boulevard  
Oakland, California  
LOP Case #RO0002438

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 10, 2009) presents the results of the monitoring and sampling of wells MW-5 through MW-8 during first quarter 2009. These wells are monitored and sampled on a quarterly basis. Also attached are Figure 1 (Vicinity Map) showing the site location, and Figure 2 (Concentration Map) presenting the first quarter 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/4  
Encl.

Figure 1 Vicinity Map  
Figure 2 Concentration Map – February 13, 2009

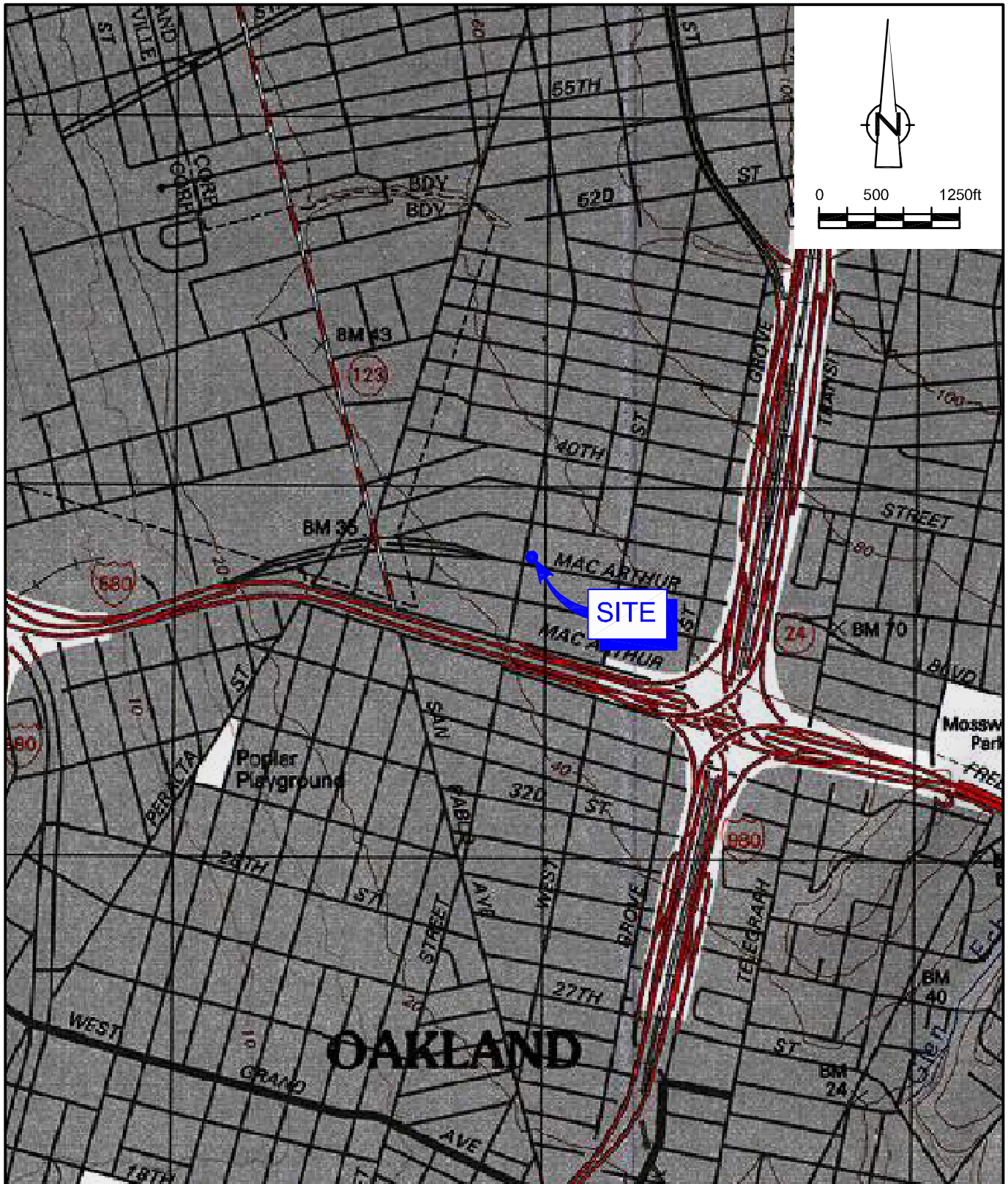
Attachment A First Quarter 2009 Groundwater Monitoring and Sampling Report

cc: Ms. Stacie Frerichs, Chevron Environmental Management Company  
Mr. Stephen O'Kane



Equal  
Employment  
Opportunity Employer

## FIGURES

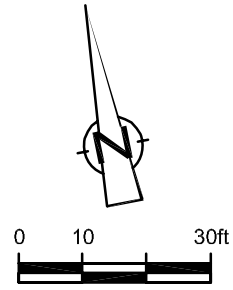


SOURCE: TOPO! MAPS.

figure 1

VICINITY MAP  
 CHEVRON SERVICE STATION 9-2029  
 890 WEST MACARTHUR BOULEVARD  
 Oakland, California





**LEGEND**

- MW-1 ■ DESTROYED MONITORING WELL
- SB-1 ■ SOIL BORING LOCATION
- MW-5 ● MONITORING WELL LOCATION
- STM --- STORM DRAIN (SD)
- SAN --- SANITARY SEWER (SS)
- W --- WATER LINE (W)
- M.H. ○ MANHOLE
- FL = 37.78 FLOW LINE ELEVATION, IN FEET ABOVE MEAN SEA LEVEL (MSL)
- (440) TPHg CONCENTRATION (ug/L)
- (0.9) BENZENE CONCENTRATION (ug/L)
- (18) MTBE CONCENTRATION (ug/L)

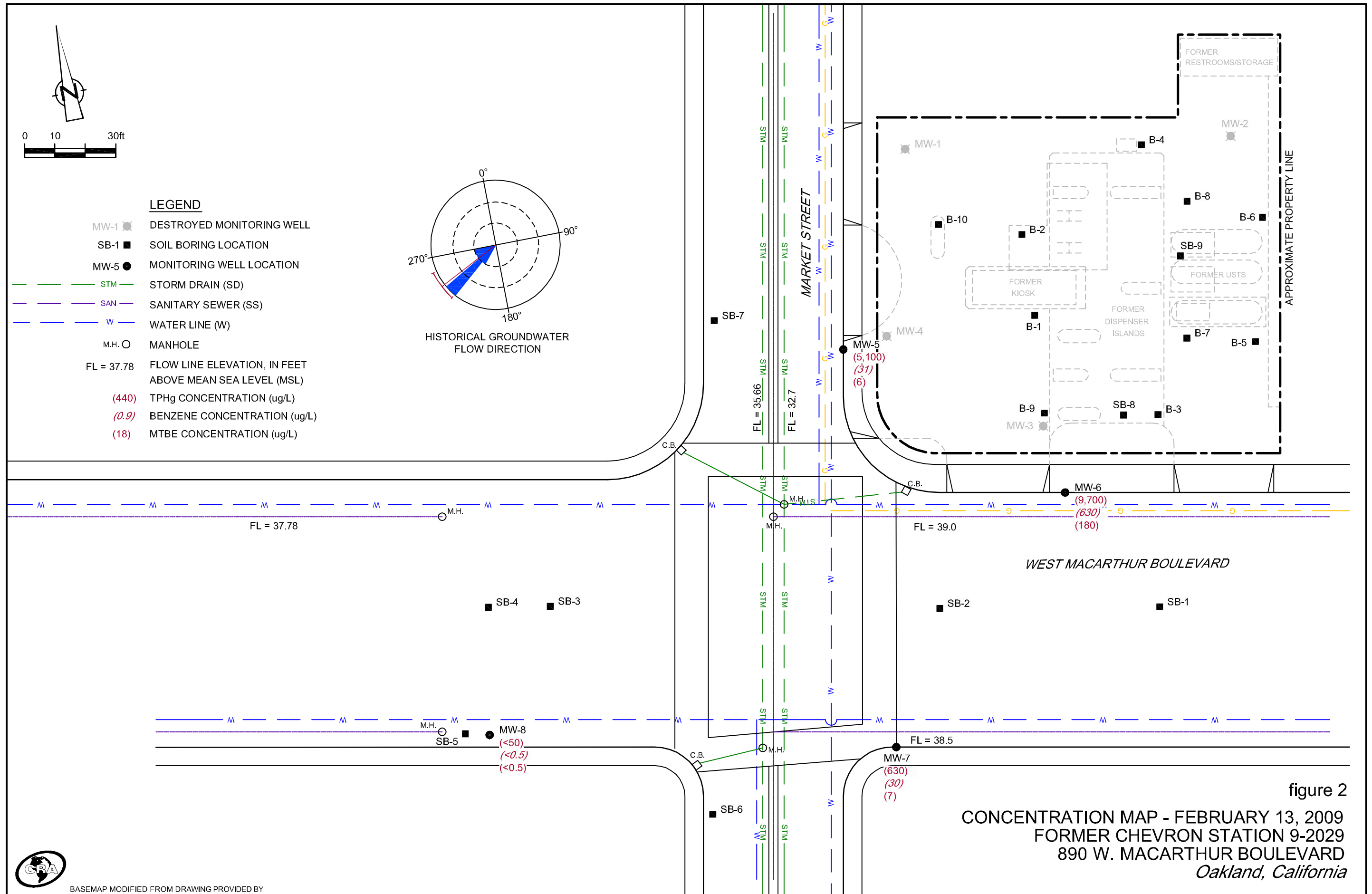
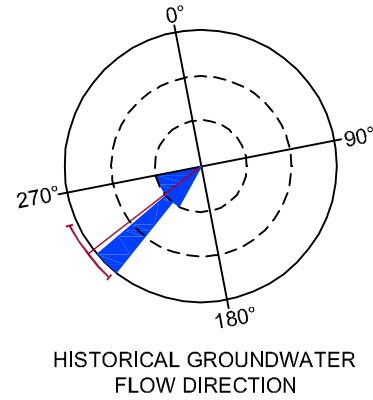


figure 2  
 CONCENTRATION MAP - FEBRUARY 13, 2009  
 FORMER CHEVRON STATION 9-2029  
 890 W. MACARTHUR BOULEVARD  
 Oakland, California



BASEMAP MODIFIED FROM DRAWING PROVIDED BY

ATTACHMENT A

FIRST QUARTER 2009 GROUNDWATER MONITORING AND SAMPLING REPORT





TRANSMITTAL

March 17, 2009
G-R #386911

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
#9-2029 (MTI)
890 West MacArthur Blvd.
Oakland, California
RO 0002438

WE HAVE ENCLOSED THE FOLLOWING:

Table with 3 columns: COPIES, DATED, DESCRIPTION. Row 1: 2, March 10, 2009, Groundwater Monitoring and Sampling Report First Quarter Event of February 13, 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 Hartung-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 31, 2009 at which time the 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.)

Enclosures

**Chevron**



**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 17, 2009  
(date)

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

Re: Chevron Facility #9-2029

Address: 890 W. MacArthur Blvd., Oakland, California

I have reviewed the attached routine groundwater monitoring report dated March 17, 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



## WELL CONDITION STATUS SHEET

Client/Facility #: Chevron #9-2029  
 Site Address: 890 West Macarthur Blvd.  
 City: Oakland, CA

Job # 386911  
 Event Date: 2/13/09  
 Sampler: SR

WELL ID	Vault Frame Condition	Gasket/O-Ring (M)missing	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/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-5	ok						→	N	N	Morrison/7"/2	N
MW-6	ok						→	N	N	Morrison/7"/2	↓
MW-7	ok						→	N	N	Morrison/7"/2	
MW-8	ok						→	N	N	Morrison/7"/2	

Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# GETTLER - RYAN Inc.



March 10, 2009  
G-R Job #386911

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

**RE: First Quarter Event of February 13, 2009**  
Groundwater Monitoring & Sampling Report  
Former Chevron Service Station #9-2029  
890 West MacArthur Boulevard  
Oakland, California

Dear Ms. Hartung-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

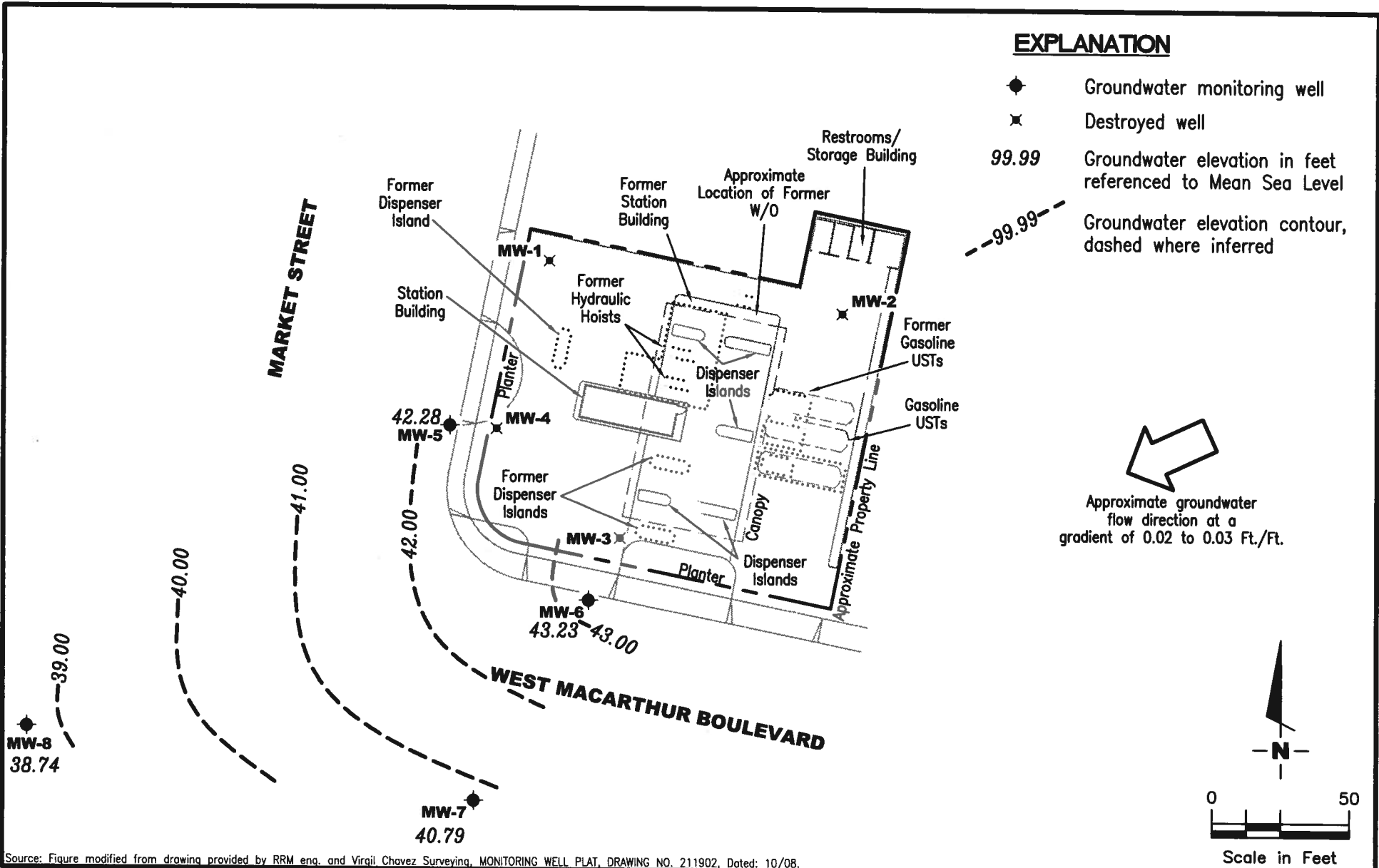
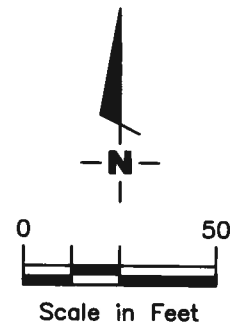


Figure 1: Potentiometric Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Groundwater Analytical Results - Oxygenate Compounds  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

**EXPLANATION**

- ◆ Groundwater monitoring well
- ✕ Destroyed 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 0.02 to 0.03 Ft./Ft.



Source: Figure modified from drawing provided by RRM eng. and Virgil Chavez Surveying, MONITORING WELL PLAT, DRAWING NO. 211902, Dated: 10/08.


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

**POTENTIOMETRIC MAP**  
 Former Chevron Service Station #9-2029  
 890 West MacArthur Boulevard  
 Oakland, California

FIGURE  
**1**

PROJECT NUMBER  
**386911**

REVIEWED BY

DATE  
February 13, 2009

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

<b>WELL ID/ DATE</b>	<b>TOC* (<i>ft.</i>)</b>	<b>DTW (<i>ft.</i>)</b>	<b>GWE (<i>msl</i>)</b>	<b>TPH-GRO (<i>µg/L</i>)</b>	<b>B (<i>µg/L</i>)</b>	<b>T (<i>µg/L</i>)</b>	<b>E (<i>µg/L</i>)</b>	<b>X (<i>µg/L</i>)</b>	<b>MTBE (<i>µg/L</i>)</b>
<b>MW-5</b>									
08/22/08 <sup>1</sup>	49.39	9.97	39.42	--	--	--	--	--	--
08/27/08 <sup>3</sup>	49.39	10.03	39.36	54	0.5	0.8	<0.5	0.7	10
11/21/08 <sup>3</sup>	49.39	8.42	40.97	6,000	93	6	37	6	8
02/13/09 <sup>3</sup>	49.39	7.11	42.28	5,100	31	5	20	3	6
<b>MW-6</b>									
08/22/08 <sup>1</sup>	49.07	8.98	40.09	--	--	--	--	--	--
08/27/08 <sup>3</sup>	49.07	8.98	40.09	6,000	990	4	350	530	440
11/21/08 <sup>3</sup>	49.07	8.12	40.95	14,000	1,000	15	1,300	550	300
02/13/09 <sup>3</sup>	49.07	5.84	43.23	9,700	630	4	510	36	180
<b>MW-7</b>									
08/22/08 <sup>1</sup>	48.74	10.20	38.54	--	--	--	--	--	--
08/27/08 <sup>3</sup>	48.74	10.19	38.55	<50	<0.5	0.6	<0.5	0.7	6
11/21/08 <sup>3</sup>	48.74	9.51	39.23	1,100	80	<0.5	65	0.7	6
02/13/09 <sup>3</sup>	48.74	7.95	40.79	630	30	<0.5	38	0.9	7
<b>MW-8</b>									
08/22/08 <sup>1</sup>	47.61	12.41	35.20	--	--	--	--	--	--
08/27/08 <sup>3</sup>	47.61	12.42	35.19	<50	<0.5	0.7	<0.5	0.6	<0.5
11/21/08 <sup>3</sup>	47.61	11.42	36.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/13/09 <sup>3</sup>	47.61	8.87	38.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-1</b>									
03/12/02 <sup>1</sup>	50.71	6.50	44.21	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
06/07/02	50.71	8.69	42.02	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
09/13/02	50.71	9.28	41.43	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
12/13/02	50.71	8.48	42.23	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
03/01/03	50.71	7.34	43.37	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5 <sup>2</sup>
06/27/03 <sup>3</sup>	50.71	9.29	41.42	<50	<0.5	0.6	<0.5	<0.5	<0.5
09/30/03 <sup>3</sup>	50.71	10.17	40.54	<50	<0.5	0.6	<0.5	<0.5	<0.5
12/03/03 <sup>3</sup>	50.71	7.82	42.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

WELL ID/ DATE	TOC* ( <i>ft.</i> )	DTW ( <i>ft.</i> )	GWE ( <i>mst</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-1 (cont)</b>									
03/10/04 <sup>3</sup>	50.71	6.57	44.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 <sup>3</sup>	50.71	9.78	40.93	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 <sup>3</sup>	50.71	9.91	40.80	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04 <sup>3</sup>	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 <sup>3</sup>	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 <sup>3</sup>	50.71	8.59	42.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05 <sup>3</sup>	50.71	9.38	41.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/02/05	50.71	8.44	42.27	--	--	--	--	--	--
03/20/06	50.71	3.05	47.66	--	--	--	--	--	--
06/01/06	50.71	6.77	43.94	--	--	--	--	--	--
09/11/06	50.71	9.18	41.53	--	--	--	--	--	--
DESTROYED									
<b>MW-2</b>									
03/12/02 <sup>1</sup>	52.57	6.09	46.48	<50	<0.50	<0.50	<0.50	<1.5	<2.5/3 <sup>2</sup>
06/07/02	52.57	8.65	43.92	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
09/13/02	52.57	9.58	42.99	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
12/13/02	52.57	8.50	44.07	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
03/01/03	52.57	7.00	45.57	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
06/27/03 <sup>3</sup>	52.57	9.59	42.98	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<0.5 <sup>2</sup>
09/30/03 <sup>3</sup>	52.57	10.64	41.93	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/03/03 <sup>3</sup>	52.57	7.54	45.03	<50	<0.5	<0.5	<0.5	<0.5	0.7
03/10/04 <sup>3</sup>	52.57	6.05	46.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 <sup>3</sup>	52.57	10.15	42.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 <sup>3</sup>	52.57	10.14	42.43	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04 <sup>3</sup>	52.57	2.29	50.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 <sup>3</sup>	52.57	2.44	50.13	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 <sup>3</sup>	52.57	8.99	43.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05 <sup>3</sup>	52.57	10.17	42.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/02/05	52.57	8.99	43.58	--	--	--	--	--	--
03/20/06	52.57	2.70	49.87	--	--	--	--	--	--
06/01/06	51.57	6.51	45.06	--	--	--	--	--	--
09/11/06	51.57	10.06	41.51	--	--	--	--	--	--
DESTROYED									

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

WELL ID/ DATE	TOC* ( <i>µ</i> L)	DTW ( <i>ft.</i> )	GWE ( <i>msl</i> )	TPH-GRO ( <i>µ</i> g/L)	B ( <i>µ</i> g/L)	T ( <i>µ</i> g/L)	E ( <i>µ</i> g/L)	X ( <i>µ</i> g/L)	MTBE ( <i>µ</i> g/L)
<b>MW-3</b>									
03/12/02 <sup>1</sup>	50.31	6.50	43.81	12,000	600	8.5	1,100	370	700/650 <sup>2</sup>
06/07/02	50.31	7.74	42.57	14,000	630	8.8	1,200	160	520/490 <sup>2</sup>
09/13/02	50.31	9.73	40.58	3,000	270	3.2	200	11	600/640 <sup>2</sup>
12/13/02	50.31	8.60	41.71	24,000	1,100	14	2,400	220	650/540 <sup>2</sup>
03/01/03	50.31	6.75	43.56	16,000	500	9.0	1,200	130	460/330 <sup>2</sup>
06/27/03 <sup>3</sup>	50.31	9.25	41.06	9,500	390	6	450	30	470
09/30/03 <sup>3</sup>	50.31	10.31	40.00	2,000	110	1	100	3	710
12/03/03 <sup>3</sup>	50.31	8.18	42.13	19,000	970	8	2,100	85	420
03/10/04 <sup>3</sup>	50.31	6.10	44.21	15,000	550	6	960	95	220
06/30/04 <sup>3</sup>	50.31	9.80	40.51	3,200	150	1	100	3	660
09/30/04 <sup>3</sup>	50.31	10.18	40.13	1,900	66	0.8	84	4	690
12/29/04 <sup>3</sup>	50.31	4.58	45.73	16,000	470	7	820	47	170
03/23/05 <sup>3</sup>	50.31	5.07	45.24	18,000	380	6	960	58	140
06/22/05 <sup>3</sup>	50.31	8.12	42.19	16,000	700	6	950	62	300
09/02/05 <sup>3</sup>	50.31	9.41	40.90	8,400	380	4	510	41	440
12/02/05 <sup>3</sup>	50.31	7.97	42.34	16,000	490	6	1,200	32	170
03/20/06 <sup>3</sup>	50.31	5.32	44.99	4,200	79	0.8	2	10	34
06/01/06 <sup>3</sup>	50.31	7.07	43.24	5,400	67	1	26	3	28
09/11/06 <sup>3</sup>	50.31	9.07	41.24	14,000	270	5	240	38	97
DESTROYED									
<b>MW-4</b>									
03/12/02 <sup>1</sup>	49.93	5.34	44.59	9,700	360	5.3	1,100	150	170/170 <sup>2</sup>
06/07/02	49.93	8.52	41.41	7,300	170	2.7	280	21	200/120 <sup>2</sup>
09/13/02	49.93	9.86	40.07	5,800	92	4.5	80	14	190/160 <sup>2</sup>
12/13/02	49.93	9.42	40.51	10,000	250	2.2	330	19	170/200 <sup>2</sup>
03/01/03	49.93	7.33	42.60	12,000	300	4.6	900	110	160/100 <sup>2</sup>
06/27/03 <sup>3</sup>	49.93	9.62	40.31	7,500	110	2	200	58	130
09/30/03 <sup>3</sup>	49.93	11.13	38.80	3,600	18	<1	16	7	520
12/03/03 <sup>3</sup>	49.93	7.80	42.13	16,000	1,000	6	720	52	73
03/10/04 <sup>3</sup>	49.93	6.69	43.24	2,200	230	3	610	71	55
06/30/04 <sup>3</sup>	49.93	10.33	39.60	7,700	59	<1	78	17	110
09/30/04 <sup>3</sup>	49.93	10.75	39.18	4,800	100	1	33	10	400
12/29/04 <sup>3</sup>	49.93	3.34	46.59	13,000	250	3	480	27	42
03/23/05 <sup>3</sup>	49.93	4.24	45.69	12,000	130	2	280	16	24
06/22/05 <sup>3</sup>	49.93	7.95	41.98	6,400	290	2	11	11	18

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

WELL ID/ DATE	TOC* (fl.)	DTW (ft.)	GWE (msl)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-4 (cont)</b>									
09/02/05 <sup>3</sup>	49.93	9.46	40.47	3,700	180	1	13	7	18
12/02/05 <sup>3</sup>	49.93	7.60	42.33	11,000	840	5	480	24	34
03/20/06 <sup>3</sup>	49.93	4.50	45.43	790	14	<0.5	1	0.6	2
06/01/06 <sup>3</sup>	49.93	7.30	42.63	5,100	48	0.8	42	4	2
09/11/06 <sup>3</sup>	49.93	9.38	40.55	6,700	64	3	44	3	4
DESTROYED									
<b>TRIP BLANK</b>									
<b>QA</b>									
03/12/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
06/07/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
09/13/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
12/13/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
03/01/03	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
06/27/03 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/03 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/03/03 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 <sup>3</sup>	--	--	--	<50	<0.5	<0.7	<0.8	<0.8	<0.5
12/29/04 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05 <sup>3</sup>	--	--	--	<50	<0.5	1 <sup>4</sup>	<0.5	1 <sup>4</sup>	<0.5
12/02/05 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/20/06 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/01/06 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/11/06 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/27/08 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/21/08 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
02/13/09 <sup>3</sup>	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

---

---

**EXPLANATIONS:**

TOC = Top of Casing  
(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

(msl) = Mean sea level

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 were surveyed on October 1, 2008 by CRA. The benchmark for this survey was a USGS bronze disk located near the north end of the curb return at the Northwest corner of 38th Street and Broadway, (Benchmark Elevation = 85.41 feet, NGVD29).

TOC elevations were surveyed on March 14, 2002, by Virgil Chavez Land Surveying. The benchmark for this survey was a USGS bronze disk located near the north end of the curb return at the Northwest corner of 38th Street and Broadway, (Benchmark Elevation = 85.41 feet, NGVD29).

<sup>1</sup> Well development performed.

<sup>2</sup> MTBE by EPA method 8260.

<sup>3</sup> BTEX and MTBE by EPA Method 8260.

<sup>4</sup> Analytical result confirmed.

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

WELL ID	DATE	ETHANOL (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-5	08/27/08	--	2	10	<0.5	<0.5	<0.5	--	--
	11/21/08	--	4	8	<0.5	<0.5	<0.5	--	--
	02/13/09	--	3	6	<0.5	<0.5	<0.5	--	--
MW-6	08/27/08	--	390	440	<0.5	<0.5	6	--	--
	11/21/08	--	320	300	<13	<13	<13	--	--
	02/13/09	--	100	180	<1	<1	4	--	--
MW-7	08/27/08	--	<2	6	<0.5	<0.5	<0.5	--	--
	11/21/08	--	5	6	<0.5	<0.5	<0.5	--	--
	02/13/09	--	<2	7	<0.5	<0.5	<0.5	--	--
MW-8	08/27/08	--	<2	<0.5	<0.5	<0.5	<0.5	--	--
	11/21/08	--	<2	<0.5	<0.5	<0.5	<0.5	--	--
	02/13/09	--	<2	<0.5	<0.5	<0.5	<0.5	--	--
MW-1 DESTROYED	03/12/02	--	<100	<2	<2	<2	<2	<2	<2
	06/07/02	--	<100	<2	<2	<2	<2	<2	<2
	09/13/02	--	<100	<2	<2	<2	<2	<2	<2
	12/13/02	--	<100	<2	<2	<2	<2	<2	<2
	03/01/03	--	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	06/27/03	--	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	09/30/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12/03/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	03/10/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	06/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	09/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12/31/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	03/23/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	06/22/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

WELL ID	DATE	ETHANOL (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-2	03/12/02	--	<100	3	<2	<2	<2	<2	<2
	06/07/02	--	<100	<2	<2	<2	<2	<2	<2
	09/13/02	--	<100	<2	<2	<2	<2	<2	<2
	12/13/02	--	<100	<2	<2	<2	<2	<2	<2
	03/01/03	--	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	06/27/03	--	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	09/30/03	<50	<5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5
	12/03/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	03/10/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	06/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	09/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12/31/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	03/23/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	06/22/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
DESTROYED									
MW-3	03/12/02	--	<100	650	<2	<2	18	<2	<2
	06/07/02	--	230	490	<5.0	<5.0	11	<5.0	<5.0
	09/13/02	--	170	640	<2	<2	8	<2	<2
	12/13/02	--	240	540	<2	<2	29	31	<2
	03/01/03	--	160	330	<0.5	<0.5	10	<0.5	<0.5
	06/27/03	--	200	470	<0.5	<0.5	11	<0.5	<0.5
	09/30/03	<50	120	710	<0.5	<0.5	6	0.7	<0.5
	12/03/03	<250	200	420	<3	<3	14	<3	<3
	03/10/04	<50	140	220	<0.5	<0.5	5	<0.5	<0.5
	06/30/04	<50	100	660	<0.5	<0.5	5	<0.5	<0.5
	09/30/04	<50	72	690	<0.5	<0.5	4	0.5	<0.5
	12/31/04	<50	77	170	<0.5	<0.5	5	<0.5	<0.5
	03/23/05	<50	<5	140	<0.5	<0.5	4	<0.5	3
	06/22/05	<250	150	300	<3	<3	6	<3	<3
	09/02/05	<100	99	440	<1	<1	<1	<1	<1
	12/02/05	<100	66	170	<1	<1	5	<1	<1
	03/20/06	<50	14	34	<0.5	<0.5	<0.5	<0.5	<0.5
06/01/06	<50	12	28	<0.5	<0.5	0.8	<0.5	<0.5	
09/11/06	<50	47	97	<0.5	<0.5	2	<0.5	<0.5	
DESTROYED									

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

WELL ID	DATE	ETHANOL (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-4	03/12/02	--	<100	170	<2	<2	13	<2	<2
	06/07/02	--	<100	120	<2	<2	14	<2	<2
	09/13/02	--	<100	160	<2	<2	14	<2	<2
	12/13/02	--	<100	200	<2	<2	17	<2	<2
	03/01/03	--	19	100	<0.5	<0.5	8	<0.5	<0.5
	06/27/03	--	22	130	<0.5	<0.5	11	<0.5	<0.5
	09/30/03	<100	<10	520	<1	<1	9	<1	<1
	12/03/03	<50	18	73	<0.5	<0.5	5	<0.5	<0.5
	03/10/04	<50	11	55	<0.5	<0.5	4	<0.5	<0.5
	06/30/04	<100	<10	110	<1	<1	6	<1	<1
	09/30/04	<50	17	400	<0.5	<0.5	7	<0.5	<0.5
	12/31/04	<50	11	42	<0.5	<0.5	2	<0.5	<0.5
	03/23/05	<50	<5	24	<0.5	<0.5	1	<0.5	0.9
	06/22/05	<50	15	18	<0.5	<0.5	1	<0.5	<0.5
	09/02/05	<50	6	18	<0.5	<0.5	<0.5	<0.5	<0.5
	12/02/05	<50	11	34	<0.5	<0.5	1	<0.5	<0.5
	03/20/06	<50	<5	2	<0.5	<0.5	<0.5	<0.5	<0.5
06/01/06	<50	<5	2	<0.5	<0.5	<0.5	<0.5	<0.5	
09/11/06	<50	<5	4	<0.5	<0.5	<0.5	<0.5	<0.5	
DESTROYED									

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

---

---

**EXPLANATIONS:**

TBA = t-Butyl alcohol  
MTBE = Methyl Tertiary Butyl Ether  
DIPE = Di-Isopropyl ether  
ETBE = Ethyl t-butyl ether  
TAME = t-Amyl methyl ether  
1,2-DCA = 1,2-Dichloroethane  
EDB = 1,2-Dibromoethane  
( $\mu\text{g/L}$ ) = Micrograms per liter  
-- = Not Analyzed

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

## 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 #9-2029 Job Number: 386911  
 Site Address: 890 West Macarthur Blvd. Event Date: 2/13/09 (inclusive)  
 City: Oakland, CA Sampler: SR

Well ID: MW-5  
 Well Diameter: 2 in.  
 Total Depth: 24.95 ft.  
 Depth to Water: 7.11 ft.

Date Monitored: 2/13/09

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.

17.84 xVF .17 = 3.0 x3 case volume = Estimated Purge Volume: 9 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.67

**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): 0910 Weather Conditions: cloudy  
 Sample Time/Date: 0935 2/13/09 Water Color: clear Odor: DI N moderate  
 Approx. Flow Rate: 21 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.41

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) (µS)	Temperature (C) (F)	D.O. (mg/L)	ORP (mV)
<u>0913</u>	<u>3</u>	<u>7.50</u>	<u>790</u>	<u>13.1</u>		
<u>0916</u>	<u>6</u>	<u>7.36</u>	<u>796</u>	<u>13.4</u>		
<u>0919</u>	<u>9</u>	<u>7.29</u>	<u>813</u>	<u>13.8</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX(8260)/ 5 OXYS(8260)</u>

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

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





# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-2029 Job Number: 386911  
 Site Address: 890 West Macarthur Blvd. Event Date: 2/13/09 (inclusive)  
 City: Oakland, CA Sampler: SR

Well ID: MW-6  
 Well Diameter: 2 in.  
 Total Depth: 24.97 ft.  
 Depth to Water: 5.84 ft.

Date Monitored: 2/13/09

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.

19.13 xVF .17 = 3.2 x3 case volume = Estimated Purge Volume: 10 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.66

### 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 / Absorbent Sock (circle one)	_____
Amt Removed from Skimmer:	_____ gal
Amt Removed from Well:	_____ gal
Water Removed:	_____
Product Transferred to:	_____

Start Time (purge): 0830 Weather Conditions: cloudy/raining  
 Sample Time/Date: 0855 12/13/09 Water Color: clear Odor: Y/N moderate  
 Approx. Flow Rate: ≈ 1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? ~ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.03

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)
<u>0833</u>	<u>3</u>	<u>7.59</u>	<u>859</u>	<u>14.0</u>	_____	_____
<u>0836</u>	<u>6</u>	<u>7.41</u>	<u>866</u>	<u>14.8</u>	_____	_____
<u>0840</u>	<u>10</u>	<u>7.35</u>	<u>880</u>	<u>15.1</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX(8260)/ 5 OXYS(8260)</u>

### COMMENTS:

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



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-2029 Job Number: 386911  
 Site Address: 890 West Macarthur Blvd. Event Date: 2/13/09 (inclusive)  
 City: Oakland, CA Sampler: SR

Well ID: MW-7  
 Well Diameter: 2 in.  
 Total Depth: 24.96 ft.  
 Depth to Water: 7.95 ft.

Date Monitored: 2/13/09

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.35  
 Check if water column is less than 0.50 ft.  
 xVF 17 = 2.8 x3 case volume = Estimated Purge Volume: 8.5 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: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0740 Weather Conditions: cloudy  
 Sample Time/Date: 0810 12/13/09 Water Color: cloudy Odor: Oil weak  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: light  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 9.12

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) (µS)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>0746</u>	<u>3</u>	<u>7.56</u>	<u>1119</u>	<u>16.7</u>		
<u>0752</u>	<u>6</u>	<u>7.33</u>	<u>1089</u>	<u>16.9</u>		
<u>0757</u>	<u>8.5</u>	<u>7.11</u>	<u>1089</u>	<u>16.5</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX(8260)/ 5 OXYS(8260)</u>

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

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



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-2029 Job Number: 386911  
 Site Address: 890 West Macarthur Blvd. Event Date: 2/13/09 (inclusive)  
 City: Oakland, CA Sampler: SR

Well ID: MW-8  
 Well Diameter: 2 in.  
 Total Depth: 24.96 ft.  
 Depth to Water: 8.87 ft.

Date Monitored: 2/13/09

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

Check if water column is less than 0.50 ft.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.08  
 xVF 0.17 = 2.7 x3 case volume = Estimated Purge Volume: 9 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: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0950 Weather Conditions: cloudy  
 Sample Time/Date: 1010 12/13/09 Water Color: cloudy Odor: (N)  
 Approx. Flow Rate: ≈1 gpm. Sediment Description: light  
 Did well de-water? ✓ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 10.23

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0953</u>	<u>3</u>	<u>7.46</u>	<u>805</u>	<u>17.1</u>		
<u>0956</u>	<u>6</u>	<u>7.31</u>	<u>855</u>	<u>17.3</u>		
<u>0959</u>	<u>9</u>	<u>7.25</u>	<u>871</u>	<u>17.4</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX(8260)/ 5 OXYS(8260)</u>

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

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

# Chevron California Region Analysis Request/Chain of Custody



621324-05

For Lancaster Laboratories use only  
 Acct. #: 12099 Sample # 5600700-04 Group #: 009769

CRA MTI Project # 61-1974

G# 1132324

Facility #: SS19-2029 G-R#3869TT GlobalID#T0600T73887  
 Site Address: 890 WEST MACARTHUR BLVD., OAKLAND, CA  
 Chevron PM: MTI CRAKJ  
 Consultant/Office: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568  
 Lead Consultant: Deanna L. Harding (deanna@grinc.com)  
 Consultant Prj. Mgr.: 925-551-7555  
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899  
 Sampler: Steve Rice

Matrix	Preservation Codes		Total Number of Containers	Analyses Requested											
	Soil	Water		Oil	Air										
<input type="checkbox"/> Potable <input type="checkbox"/> NPDES	<input type="checkbox"/> Grab <input type="checkbox"/> Composite	<input type="checkbox"/> BTEX + <del>8260</del> 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 <input checked="" type="checkbox"/> Oxygenates (8250)	<input type="checkbox"/> Total Lead <input type="checkbox"/> Dissolved Lead	<input checked="" type="checkbox"/> H	<input checked="" type="checkbox"/> H	<input checked="" type="checkbox"/> H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Preservative Codes**  
 H = HCl      T = Thiosulfate  
 N = HNO<sub>3</sub>    B = NaOH  
 S = H<sub>2</sub>SO<sub>4</sub>    O = Other

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

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air
<u>QA</u>	<u>2/13/09</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>MW-5</u>	<u>↓</u>	<u>0935</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>MW-6</u>	<u>↓</u>	<u>0855</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>MW-7</u>	<u>↓</u>	<u>0810</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>MW-8</u>	<u>↓</u>	<u>1010</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Comments / Remarks**

**Turnaround Time Requested (TAT) (please circle)**  
 STD. TAT      72 hour      48 hour  
 24 hour      4 day      5 day

**Data Package Options (please circle if required)**  
 QC Summary      Type I - Full      **EDF/EDD**  
 Type VI (Raw Data)       Coelt Deliverable not needed  
 WIP (RWQCB)  
 Disk

Relinquished by: <u>[Signature]</u>	Date: <u>2/13/09</u>	Time: <u>1440</u>	Received by: <u>[Signature]</u>	Date: <u>13 FEB 2009</u>	Time: <u>1446</u>
Relinquished by: <u>[Signature]</u>	Date: <u>2/13</u>	Time:	Received by: <u>[Signature]</u>	Date: <u>2/13</u>	Time:
Relinquished by: _____	Date:	Time:	Received by: _____	Date:	Time:
Relinquished by Commercial Carrier: UPS      FedEx      Other _____	Temperature Upon Receipt: <u>42-51</u> °C		Received by: <u>[Signature]</u>	Date: <u>2/14/09</u>	Time: <u>1020</u>
Custody Seals Intact? <u>[Signature]</u>			No		

## 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

FEB 25 2009

GETTLER-RYAN INC.  
GENERAL CONTRACTORSSAMPLE GROUP

The sample group for this submittal is 1132324. Samples arrived at the laboratory on Saturday, February 14, 2009. The PO# for this group is 92029 and the release number is MTI.

Client DescriptionQA-T-090213 NA Water  
MW-5-W-090213 Grab Water  
MW-6-W-090213 Grab Water  
MW-7-W-090213 Grab Water  
MW-8-W-090213 Grab WaterLancaster Labs Number5600700  
5600701  
5600702  
5600703  
5600704ELECTRONIC      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

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**



# Analysis Report

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

Page 1 of 1

Lancaster Laboratories Sample No. WW5600700

Group No. 1132324

QA-T-090213 NA Water  
Facility# 92029 Job# 386911 MTI# 61-1974 GRD  
890 W MacArthur-Oakland T0600173887 QA  
Collected: 02/13/2009

Account Number: 12099

Submitted: 02/14/2009 10:20  
Reported: 02/24/2009 at 19:22  
Discard: 03/27/2009

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

WMOQA

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
06053	BTEX by 8260B					
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	02/19/2009 02:14	Marie D John	1
06053	BTEX by 8260B	SW-846 8260B	1	02/18/2009 13:02	Daniel H Heller	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/19/2009 02:14	Marie D John	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/18/2009 13:02	Daniel H Heller	1





# Analysis Report

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

Page 1 of 1

Lancaster Laboratories Sample No. **WW5600701**

Group No. **1132324**

**MW-5-W-090213 Grab Water**

Facility# **92029** Job# **386911** MTI# **61-1974** GRD

**890 W MacArthur-Oakland T0600173887 MW-5**

Collected: 02/13/2009 09:35 by SR

Account Number: 12099

Submitted: 02/14/2009 10:20

Reported: 02/24/2009 at 19:22

Discard: 03/27/2009

Chevron c/o CRA

Suite 110

2000 Opportunity Drive

Roseville CA 95678

WMO05

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.	5,100	Detection Limit	ug/l	5
06056	BTEX+5 Oxygenates by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	6	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	3	2	ug/l	1
05401	Benzene	71-43-2	31	0.5	ug/l	1
05407	Toluene	108-88-3	5	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	20	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	3	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	02/19/2009 15:33	Marie D John	5
06056	BTEX+5 Oxygenates by 8260B	SW-846 8260B	1	02/18/2009 16:37	Daniel H Heller	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/19/2009 15:33	Marie D John	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/18/2009 16:37	Daniel H Heller	1



# Analysis Report

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

Page 1 of 1

Lancaster Laboratories Sample No. WW5600702

Group No. 1132324

MW-6-W-090213 Grab Water

Facility# 92029 Job# 386911 MTI# 61-1974 GRD

890 W MacArthur-Oakland T0600173887 MW-6

Collected: 02/13/2009 08:55 by SR

Account Number: 12099

Submitted: 02/14/2009 10:20

Reported: 02/24/2009 at 19:22

Discard: 03/27/2009

Chevron c/o CRA

Suite 110

2000 Opportunity Drive

Roseville CA 95678

WMO06

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.	9,700	Detection Limit	250	5
06056	BTEX+5 Oxygenates by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	180		1	ug/l 2
02011	di-Isopropyl ether	108-20-3	N.D.		1	ug/l 2
02013	Ethyl t-butyl ether	637-92-3	N.D.		1	ug/l 2
02014	t-Amyl methyl ether	994-05-8	4		1	ug/l 2
02015	t-Butyl alcohol	75-65-0	100		4	ug/l 2
05401	Benzene	71-43-2	630		10	ug/l 20
05407	Toluene	108-88-3	4		1	ug/l 2
05415	Ethylbenzene	100-41-4	510		10	ug/l 20
06310	Xylene (Total)	1330-20-7	36		1	ug/l 2

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	02/19/2009 06:58	Marie D John	5
06056	BTEX+5 Oxygenates by 8260B	SW-846 8260B	1	02/20/2009 10:21	Daniel H Heller	2
06056	BTEX+5 Oxygenates by 8260B	SW-846 8260B	1	02/20/2009 10:48	Daniel H Heller	20
01146	GC VOA Water Prep	SW-846 5030B	1	02/19/2009 06:58	Marie D John	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/20/2009 10:21	Daniel H Heller	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	02/20/2009 10:48	Daniel H Heller	20



# Analysis Report

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

Page 1 of 1

Lancaster Laboratories Sample No. WW5600703

Group No. 1132324

MW-7-W-090213 Grab Water

Facility# 92029 Job# 386911 MTI# 61-1974 GRD

890 W MacArthur-Oakland T0600173887 MW-7

Collected: 02/13/2009 08:10 by SR

Account Number: 12099

Submitted: 02/14/2009 10:20

Reported: 02/24/2009 at 19:22

Discard: 03/27/2009

Chevron c/o CRA

Suite 110

2000 Opportunity Drive

Roseville CA 95678

WMO07

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.	630	Detection Limit	ug/l	1
06056	BTEX+5 Oxygenates by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	7	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	2	ug/l	1
05401	Benzene	71-43-2	30	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	38	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	0.9	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	02/19/2009 07:20	Marie D John	1
06056	BTEX+5 Oxygenates by 8260B	SW-846 8260B	1	02/18/2009 18:25	Daniel H Heller	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/19/2009 07:20	Marie D John	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/18/2009 18:25	Daniel H Heller	1



# Analysis Report

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

Page 1 of 1

Lancaster Laboratories Sample No. WW5600704

Group No. 1132324

MW-8-W-090213 Grab Water  
Facility# 92029 Job# 386911 MTI# 61-1974 GRD  
890 W MacArthur-Oakland T0600173887 MW-8  
Collected:02/13/2009 10:10 by SR

Account Number: 12099

Submitted: 02/14/2009 10:20  
Reported: 02/24/2009 at 19:22  
Discard: 03/27/2009

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

WMO08

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
06056	BTEX+5 Oxygenates by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	2	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	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	02/19/2009	07:42	Marie D John	1
06056	BTEX+5 Oxygenates by 8260B	SW-846 8260B	1	02/18/2009	18:51	Daniel H Heller	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/19/2009	07:42	Marie D John	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/18/2009	18:51	Daniel H Heller	1

## Quality Control Summary

 Client Name: Chevron c/o CRA  
 Reported: 02/24/09 at 07:22 PM

Group Number: 1132324

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: 09048C20A TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: P090492AA Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	98		73-119		
di-Isopropyl ether	N.D.	0.5	ug/l	99		70-123		
Ethyl t-butyl ether	N.D.	0.5	ug/l	100		74-120		
t-Amyl methyl ether	N.D.	0.5	ug/l	103		79-113		
t-Butyl alcohol	N.D.	2.	ug/l	98		74-117		
Benzene	N.D.	0.5	ug/l	96		78-119		
Toluene	N.D.	0.5	ug/l	95		85-115		
Ethylbenzene	N.D.	0.5	ug/l	94		82-119		
Xylene (Total)	N.D.	0.5	ug/l	95		83-113		
Batch number: P090511AA Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	93	94	73-119	1	30
di-Isopropyl ether	N.D.	0.5	ug/l	93	94	70-123	1	30
Ethyl t-butyl ether	N.D.	0.5	ug/l	94	96	74-120	1	30
t-Amyl methyl ether	N.D.	0.5	ug/l	97	98	79-113	1	30
t-Butyl alcohol	N.D.	2.	ug/l	91	92	74-117	1	30
Benzene	N.D.	0.5	ug/l	89	91	78-119	2	30
Toluene	N.D.	0.5	ug/l	86	90	85-115	4	30
Ethylbenzene	N.D.	0.5	ug/l	86	88	82-119	3	30
Xylene (Total)	N.D.	0.5	ug/l	86	89	83-113	3	30

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 09048C20A TPH-GRO N. CA water C6-C12	127		63-154						
Batch number: P090492AA Methyl Tertiary Butyl Ether	100	101	69-127	1	30				
di-Isopropyl ether	102	103	68-129	1	30				
Ethyl t-butyl ether	102	102	78-119	0	30				
t-Amyl methyl ether	104	105	72-125	1	30				
t-Butyl alcohol	94	97	70-121	3	30				
Benzene	101	101	83-128	0	30				
Toluene	100	101	83-127	1	30				

\*- 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: 02/24/09 at 07:22 PM

Group Number: 1132324

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Ethylbenzene	99	100	82-129	1	30				
Xylene (Total)	98	99	82-130	1	30				
Batch number: P090511AA Sample number(s): 5600702 UNSPK: P602024									
Methyl Tertiary Butyl Ether	94		69-127						
di-Isopropyl ether	96		68-129						
Ethyl t-butyl ether	96		78-119						
t-Amyl methyl ether	99		72-125						
t-Butyl alcohol	91		70-121						
Benzene	94		83-128						
Toluene	94		83-127						
Ethylbenzene	92		82-129						
Xylene (Total)	93		82-130						

### 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: 09048C20A  
 Trifluorotoluene-F

5600700	85
5600701	123
5600702	115
5600703	102
5600704	86
Blank	85
LCS	119
LCSD	116
MS	131

Limits: 63-135

 Analysis Name: BTEX by 8260B  
 Batch number: P090492AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5600700	100	101	97	89
5600701	99	101	95	99
5600703	99	100	97	89
5600704	100	98	97	88
Blank	99	102	97	89
LCS	99	103	96	90
MS	100	102	96	91
MSD	100	102	97	91

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.

## Quality Control Summary

Client Name: Chevron c/o CRA  
Reported: 02/24/09 at 07:22 PM

Group Number: 1132324

### Surrogate Quality Control

Analysis Name: BTEX+5 Oxygenates by 8260B  
Batch number: P090511AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5600702	90	89	85	86
Blank	90	90	87	84
LCS	91	91	86	84
LCSD	90	90	87	84
MS	90	90	87	85
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.

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