



**RECEIVED**

9:41 am, Apr 22, 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

April 20, 2009  
(date)

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

Re: Chevron Facility # 9-1740

Address: 6550 Moraga Avenue, Oakland, California

I have reviewed the attached report titled First Semi-Annual 2009 Groundwater Monitoring Report and dated April 20, 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



April 20, 2009

Reference No. 611978

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  
Chevron Service Station 9-1740  
6550 Moraga Avenue  
Oakland, California  
LOP Case #RO0000256

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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 27, 2009) presents the results of the monitoring and sampling of wells C-2 through C-4 during first quarter 2009. Monitoring of wells C-2 and C-4 is performed on a semi-annual basis during the first and third quarters; monitoring of well C-3 is performed annually during the first quarter. 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



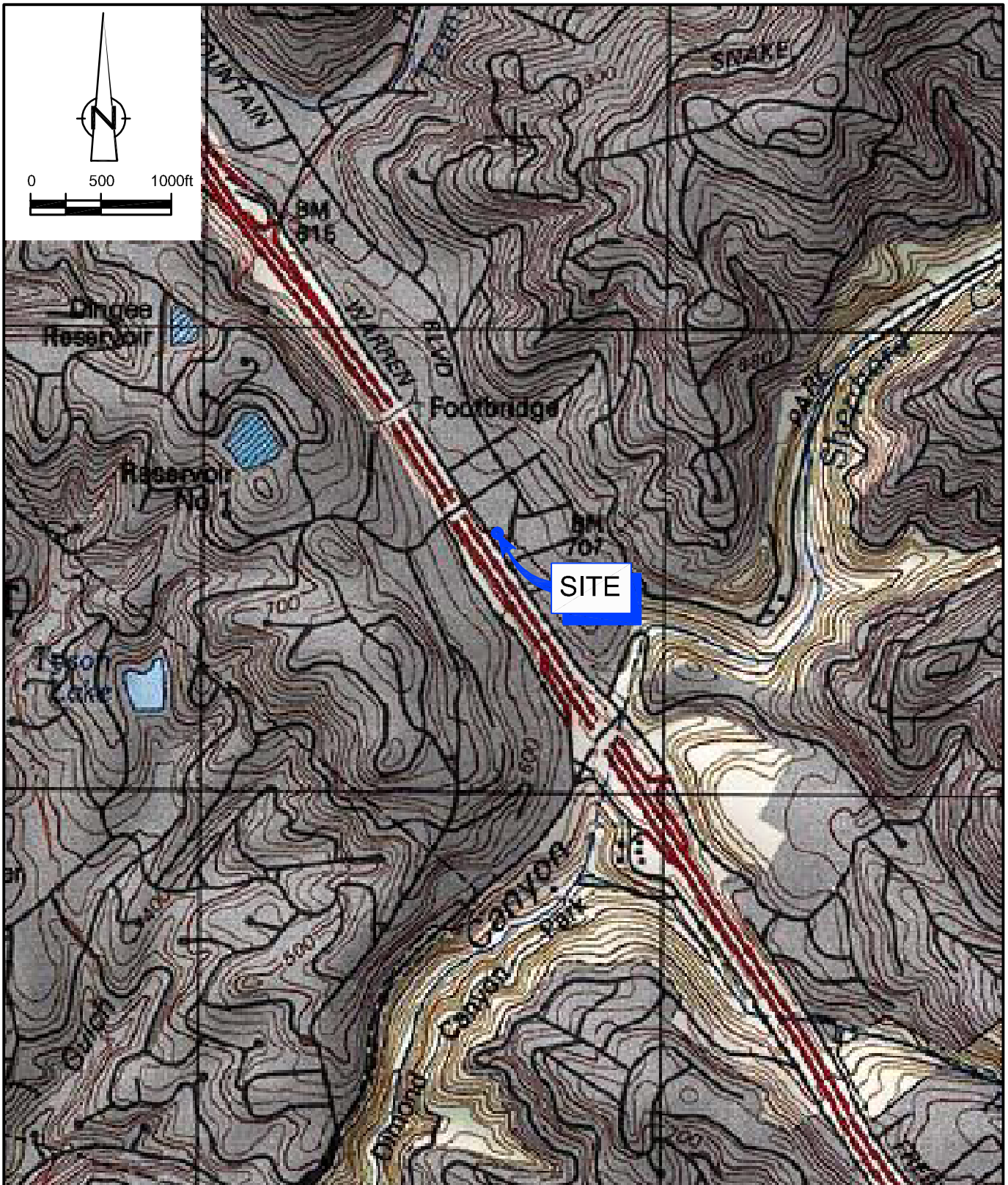
CB/kw/2  
Encl.

Figure 1 Vicinity Map  
Figure 2 Concentration Map – March 3, 2009

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

cc: Ms. Stacie Frerichs, Chevron Environmental Management Company

## FIGURES

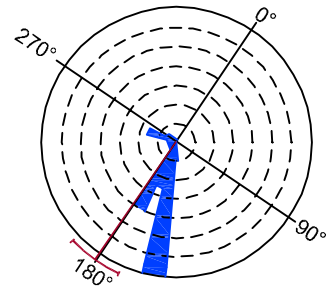


SOURCE: TOPOIMAP

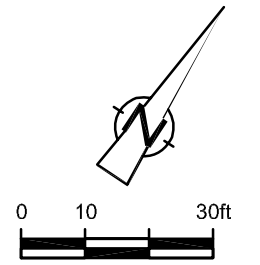
figure 1

VICINITY MAP  
 CHEVRON SERVICE STATION 9-1740  
 6550 MORAGA AVENUE  
 Oakland, California

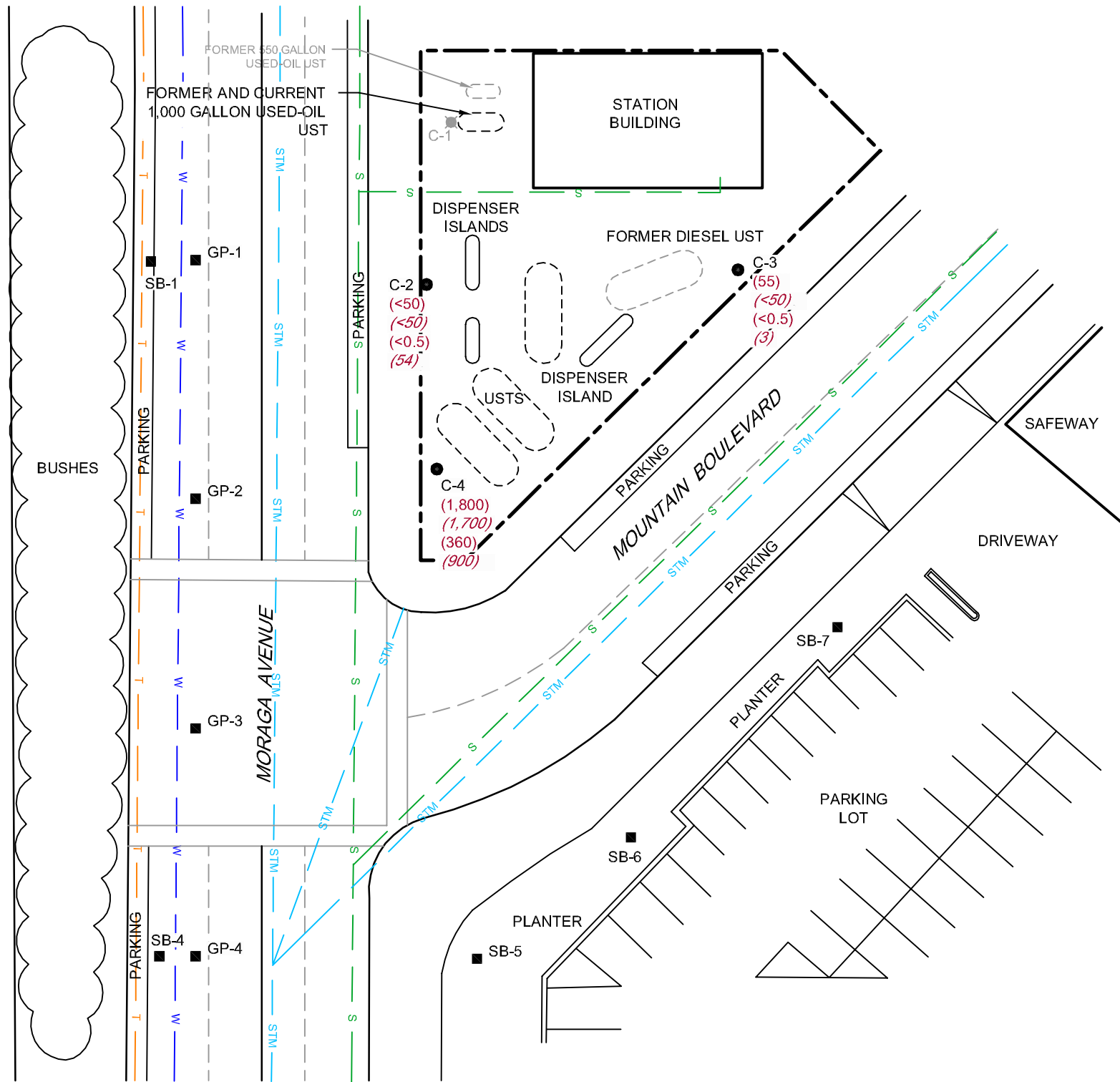




HISTORICAL GROUNDWATER FLOW DIRECTION



WARREN FREEWAY (STATE ROUTE 13)



**LEGEND**

- GP-1 ■ SOIL BORING LOCATION
- C-2 ● MONITORING WELL LOCATION
- C-1 ■ DESTROYED MONITORING WELL LOCATION

- SEWER LINE
- STORM DRAIN
- WATER LINE
- SBC LINE

- (59) TPHd CONCENTRATION (ug/L)
- (57) TPHg CONCENTRATION (ug/L)
- (<0.5) BENZENE CONCENTRATION (ug/L)
- (150) MTBE CONCENTRATION (ug/L)

figure 2

CONCENTRATION MAP - MARCH 3, 2009  
 CHEVRON SERVICE STATION 9-1740  
 6550 MORAGA AVENUE  
 Oakland, California



\* FEATURES OUTSIDE OF SERVICE STATION NOT SURVEYED

ATTACHMENT A

FIRST SEMI-ANNUAL 2009 GROUNDWATER MONITORING AND SAMPLING REPORT





# GETTLER-RYAN Inc.



## TRANSMITTAL

April 3, 2009  
G-R #386507

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: **Chevron Service Station  
#9-1740 (MTI)  
6550 Moraga Avenue  
Oakland, California  
RO 0000256**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
2	March 27, 2009	Groundwater Monitoring and Sampling Report First Semi-Annual Event of March 3, 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 Rd., Room 3596, San Ramon, CA 94583

Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to **April 17, 2009**, at which time this final report will be distributed to the following:

- cc: Mr. Eddie So, RWQCB-San Francisco Bay Region, 1515 Clay St., Suite 1400, Oakland, CA 94612  
(No Hard Copy)
- 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

trans/9-1740-SHF

6747 Sierra Court, Suite J • Dublin, CA 94568 • (925) 551-7555 • Fax (925) 551-7888  
3140 Gold Camp Drive, Suite 170 • Rancho Cordova, CA 95670 • (916) 631-1300 • Fax (916) 631-1317  
1364 N. McDowell Blvd., Suite B2 • Petaluma, CA 94954 • (707) 789-3255 • Fax (707) 789-3218



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

April 3, 2009  
(date)

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

Re: Chevron Facility # 9-1740

Address: 6550 Moraga Ave., Oakland, California

I have reviewed the attached routine groundwater monitoring report dated April 3, 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 #9-1740**  
 Site Address: **6550 Moraga Avenue**  
 City: **Oakland, CA**

Job # **386507**  
 Event Date: **3-3-09**  
 Sampler: **See**

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
C-2	O.K						→	N	N	12" EMCO/2	No
C-3	O.K						→	↓	↓	12" EMCO/2	↓
C-4	O.K						→	↓	↓	12" POMECO/2	↓

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



# GETTLER - RYAN Inc.



March 27, 2009  
G-R Job #386507

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

**RE: First Semi-Annual Event of March 3, 2009**  
Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-1740  
6550 Moraga 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

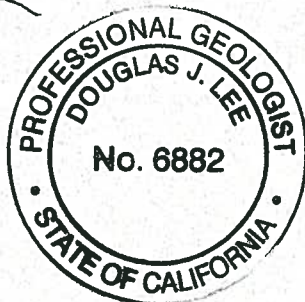
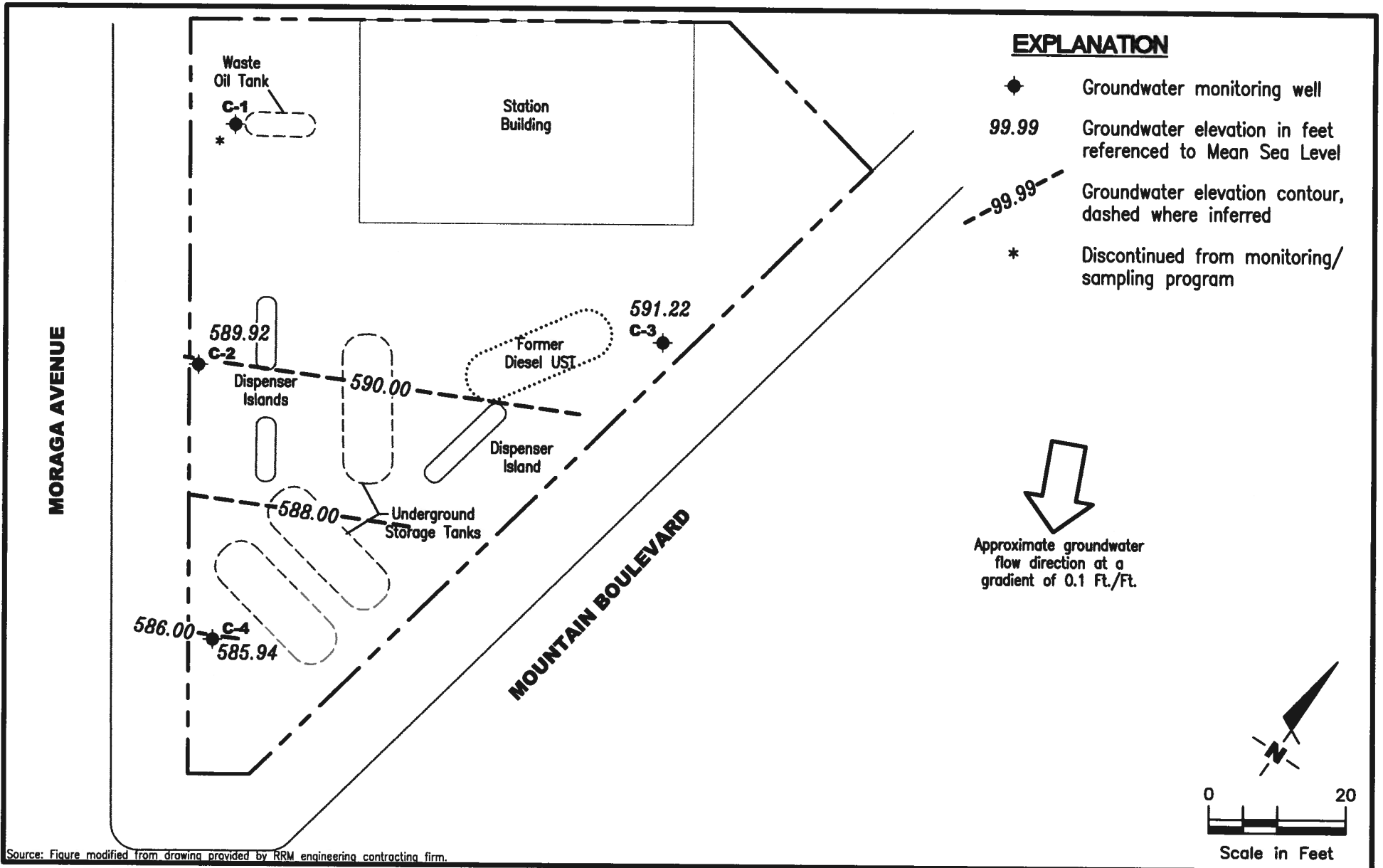


Figure 1: Potentiometric Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Dissolved Oxygen Concentrations  
Table 3: Groundwater Analytical Results - Oxygenate Compounds  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports



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

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

**POTENTIOMETRIC MAP**  
 Chevron Service Station #9-1740  
 6550 Moraga Avenue  
 Oakland, California

FIGURE  
**1**

PROJECT NUMBER <b>386507</b>	REVIEWED BY	DATE March 3, 2009	REVISED DATE
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**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

WELL ID/ DATE	TOC* ( <i>ft.</i> )	GWE ( <i>msl</i> )	DTW ( <i>ft.</i> )	SPHT ( <i>ft.</i> )	TPH-DRO ( <i>µg/L</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> )
C-2											
03/25/91	594.57	571.68	22.89	--	--	<50	1.0	<0.5	<0.5	2.0	--
07/01/91	594.57	587.20	7.37	--	--	660	190	2.5	28	22	--
09/25/91	594.57	587.59	6.98	--	--	110	200	1.9	21	1.7	--
12/23/91	594.57	589.56	5.01	--	--	<50	1.2	1.2	<0.5	1.8	--
03/24/92	594.57	577.30	17.27	--	--	100	5.9	7.9	4.0	14	--
06/23/92	594.57	590.75	3.82	--	--	190	45	4.5	9.5	10	--
09/30/92	594.57	580.56	14.01	--	--	240	99	2.3	11	6.1	--
12/16/92	594.57	580.05	14.52	--	--	280	160	6.2	7.4	5.0	--
03/30/93	594.57	583.49	11.08	--	--	110	21	<0.5	0.8	<1.5	--
06/10/93	594.57	583.08	11.49	--	--	180	53	2.6	8.0	5.8	--
09/02/93	594.57	580.49	14.08	--	--	51	18	0.8	4.4	<1.5	--
12/06/93	594.57	579.87	14.70	--	--	<50	20	1.3	2.7	<0.5	--
03/02/94	594.57	579.70	14.87	--	--	<50	9.9	1.6	<0.5	0.8	--
06/03/94	594.57	579.35	15.22	--	--	440	300	2.7	61	2.1	--
09/07/94	594.57	587.27	7.30	--	--	80	30	<0.5	1.6	<0.5	--
12/06/94	594.57	589.29	5.28	--	--	120	51	<0.5	4.7	<0.5	--
03/31/95	594.57	589.13	5.44	--	--	770	250	<5.0	74	<5.0	--
06/15/95	594.57	589.62	4.95	--	--	240	76	<1.0	26	<1.0	--
09/25/95	594.57	587.78	6.79	--	--	<50	1.2	<0.5	<0.5	<0.5	--
12/19/95	594.57	588.94	5.63	--	--	<250	23	<2.5	<2.5	<2.5	860
03/31/97	594.57	589.74	4.83	--	--	<500	48	<5.0	<5.0	<5.0	2,900
06/23/97	594.57	589.98	4.59	--	--	1200	240	<10	<10	<10	4,900
09/02/97	594.57	590.02	4.55	--	--	1400	340	<5.0	54	6.9	2,500
12/15/97	594.57	590.26	4.31	--	--	540	100	<2.5	8.7	<2.5	2,400
03/10/98	594.57	590.00	4.57	--	--	<500	<5.0	<5.0	<5.0	<5.0	3,000
06/16/98	594.57	589.99	4.58	--	--	120	6.6	<1.0	<1.0	<1.0	2,500
08/25/98	594.57	589.67	4.90	--	--	140	<0.5	<0.5	<0.5	<0.5	2,600
12/29/98	594.57	589.77	4.80	--	--	1830	17.7	<10.0	<10.0	14.9	4,600/4,890 <sup>1</sup>
03/09/99	594.57	590.21	4.36	--	--	120	16	<1.0	<1.0	<1.0	3,400
06/23/99 <sup>2</sup>	594.57	589.92	4.65	--	--	--	--	--	--	--	--
09/28/99	594.57	585.99	8.58	--	--	<50	<0.5	<0.5	<0.5	<0.5	1,250
02/29/00	594.57	586.59	7.98	--	--	122	<0.5	<0.5	<0.5	<0.5	249
08/29/00	594.57	587.52	7.05	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	390
03/27/01	594.57	587.73	6.84	0.00	--	<50.0	<0.500	<0.500	<0.500	<0.500	9.72
09/05/01 <sup>4</sup>	594.57	587.37	7.20	0.00	58 <sup>5</sup>	360	<0.50	<0.50	<0.50	<1.5	1,300/1,000 <sup>1</sup>
03/04/02 <sup>4</sup>	594.57	587.59	6.98	0.00	270 <sup>6</sup>	190	<0.50	<0.50	<0.50	<1.5	440

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>C-2 (cont)</b>											
09/03/02 <sup>4</sup>	594.57	587.29	7.28	0.00	760 <sup>6</sup>	120	<0.50	<0.50	<0.50	<1.5	290
03/29/03 <sup>4</sup>	594.57	588.06	6.51	0.00	<50 <sup>6</sup>	53	<0.5	<0.5	<0.5	<1.5	73
09/23/03 <sup>4,7</sup>	594.57	587.71	6.86	0.00	64 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	12
03/17/04 <sup>7,8</sup>	594.57	587.35	7.22	0.00	<50 <sup>6</sup>	82	<0.5	<0.5	<0.5	<0.5	370
09/13/04 <sup>7</sup>	594.57	589.16	5.41	0.00	<50 <sup>6</sup>	67	<0.5	<0.5	<0.5	<0.5	530
03/11/05 <sup>7</sup>	594.57	589.84	4.73	0.00	84 <sup>6</sup>	110	<0.5	<0.5	<0.5	<0.5	580
09/29/05 <sup>7</sup>	594.57	589.01	5.56	0.00	82 <sup>6,9</sup>	61	<0.5	<0.5	<0.5	<0.5	320
03/20/06 <sup>7</sup>	594.57	590.15	4.42	0.00	120 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	500
08/25/06 <sup>7</sup>	594.57	589.06	5.51	0.00	130 <sup>6</sup>	93	<0.5	<0.5	<0.5	<0.5	460
03/12/07 <sup>7</sup>	594.57	589.66	4.91	0.00	-- <sup>10</sup>	<50	<0.5	<0.5	<0.5	<0.5	110
03/21/07	594.57	589.85	4.72	0.00	220 <sup>6</sup>	--	--	--	--	--	--
09/21/07 <sup>7</sup>	594.57	588.93	5.64	0.00	<50 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	180
03/10/08 <sup>7</sup>	594.57	589.76	4.81	0.00	<50 <sup>6</sup>	73	<0.5	<0.5	<0.5	<0.5	170
09/15/08 <sup>7</sup>	594.57	588.61	5.96	0.00	59 <sup>6</sup>	57	<0.5	<0.5	<0.5	<0.5	150
03/03/09 <sup>7</sup>	594.57	589.92	4.65	0.00	<50 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	54
<b>C-3</b>											
03/25/91	597.14	591.98	5.16	--	--	<50	<0.5	<0.5	<0.5	0.5	--
07/01/91	597.14	591.30	5.84	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/91	597.14	591.20	5.94	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/23/91	597.14	591.20	5.94	--	--	<50	1.0	<0.5	<0.5	1.5	--
03/24/92	597.14	592.37	4.77	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/23/92	597.14	591.47	5.67	--	--	<50	0.9	1.1	0.5	1.6	--
09/30/92	597.14	590.84	6.30	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/16/92	597.14	591.57	5.57	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/30/93	597.14	592.08	5.06	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/10/93	597.14	591.85	5.29	--	--	<50	0.6	1.9	0.6	3.5	--
09/02/93	597.14	591.22	5.92	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
12/06/93	597.14	591.38	5.76	--	--	<50	<0.5	0.6	<0.5	<0.5	--
03/02/94	597.14	591.97	5.17	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/03/94	597.14	591.74	5.40	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/07/94	597.14	591.14	6.00	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/06/94	597.14	591.95	5.19	--	--	<50	<0.5	0.8	<0.5	<0.5	--
03/31/95	597.14	592.04	5.10	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

WELL ID/ DATE	TOC* ( <i>ft.</i> )	GWE ( <i>msl</i> )	DTW ( <i>ft.</i> )	SPHT ( <i>ft.</i> )	TPH-DRO ( <i>µg/L</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>C-3 (cont)</b>											
06/15/95	597.14	591.78	5.36	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/95	597.14	591.04	6.10	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	597.14	591.46	5.68	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/31/97	597.14	590.65	6.49	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	597.14	590.63	6.51	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/02/97	597.14	591.07	6.07	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/15/97	597.14	590.86	6.28	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/10/98	597.14	590.89	6.25	--	--	<50	<0.5	<0.5	<0.5	<0.5	4
06/16/98	597.14	590.80	6.34	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
08/25/98	597.14	590.61	6.53	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/29/98	597.14	590.59	6.55	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
03/09/99	597.14	591.20	5.94	--	--	<50	<0.5	<0.5	<0.5	<0.5	3
09/28/99	597.14	590.26	6.88	--	SAMPLED ANNUALLY		--	--	--	--	--
02/29/00	597.14	591.56	5.58	--	--	<50	<0.5	<0.5	<0.5	<0.5	10
08/29/00	597.14	590.53	6.61	0.00	--	--	--	--	--	--	--
03/27/01	597.14	591.00	6.14	0.00	--	264	<2.50	<2.50	<2.50	<2.50	870
09/05/01	597.14	590.46	6.68	0.00	--	--	--	--	--	--	--/ <2 <sup>1</sup>
03/04/02	597.14	590.93	6.21	0.00	<50 <sup>6</sup>	<50	<0.50	<0.50	<0.50	<1.5	<5.0
09/03/02	597.14	590.40	6.74	0.00	SAMPLED ANNUALLY		--	--	--	--	--
03/29/03	597.14	590.86	6.28	0.00	<50 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5
09/23/03	597.14	590.51	6.63	0.00	SAMPLED ANNUALLY		--	--	--	--	--
03/19/04 <sup>7</sup>	597.14	591.24	5.90	0.00	<50 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	2
09/13/04	597.14	591.85	5.29	0.00	SAMPLED ANNUALLY		--	--	--	--	--
03/11/05 <sup>7</sup>	597.14	591.53	5.61	0.00	<50 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	2
09/29/05	597.14	590.22	6.92	0.00	SAMPLED ANNUALLY		--	--	--	--	--
03/20/06 <sup>7</sup>	597.14	591.86	5.28	0.00	<50 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	3
08/25/06	597.14	590.51	6.63	0.00	SAMPLED ANNUALLY		--	--	--	--	--
03/12/07 <sup>7</sup>	597.14	591.07	6.07	0.00	-- <sup>10</sup>	55	<0.5	<0.5	<0.5	<0.5	2
03/21/07	597.14	590.91	6.23	0.00	240 <sup>6</sup>	--	--	--	--	--	--
09/21/07	597.14	590.29	6.85	0.00	SAMPLED ANNUALLY		--	--	--	--	--
03/10/08 <sup>7</sup>	597.14	590.89	6.25	0.00	<50 <sup>6</sup>	87	<0.5	<0.5	<0.5	<0.5	3
09/15/08	597.14	590.15	6.99	0.00	SAMPLED ANNUALLY		--	--	--	--	--
03/03/09 <sup>7</sup>	597.14	591.22	5.92	0.00	55 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	3

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

WELL ID/ DATE	TOC* (%)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
C-4											
03/25/91	593.10	588.65	4.45	--	--	2700	240	16	<0.5	350	--
07/01/91	593.10	587.77	5.33	--	--	7900	1500	230	340	350	--
09/25/91	593.10	587.60	5.50	--	--	3200	850	160	150	220	--
12/23/91	593.10	588.18	4.92	--	--	4100	390	52	42	340	--
03/24/92	593.10	589.06**	4.19	0.19	--	--	--	--	--	--	--
06/23/92	593.10	588.34**	4.91	0.30	--	--	--	--	--	--	--
09/30/92	593.10	584.44	8.66	--	--	450	97	14	12	29	--
12/16/92	593.10	583.30	9.80	--	--	590	130	18	5.6	29	--
03/30/93	593.10	583.25**	10.00	0.12	--	--	--	--	--	--	--
06/10/93	593.10	583.46	9.64	--	--	1300	290	36	17	73	--
09/02/93	593.10	583.02	10.08	--	--	630	97	12	6.6	21	--
12/06/93	593.10	582.85	10.25	--	--	1900	600	68	27	130	--
03/02/94	593.10	584.36	8.74	--	--	2600	1200	110	43	180	--
06/03/94	593.10	583.27	9.83	--	--	780	180	13	8.5	26	--
09/07/94	593.10	582.80	10.30	--	--	<50	14	<0.5	0.7	<0.5	--
12/06/94	593.10	583.90	9.20	--	--	980	270	21	12	38	--
03/31/95	593.10	582.86	10.24	--	--	1500	450	25	11	49	--
06/15/95	593.10	582.78	10.32	--	--	960	250	15	4.5	37	--
09/25/95	593.10	584.72	8.38	--	--	<500	18	<5.0	<5.0	<5.0	--
12/19/95	593.10	582.94	10.16	--	--	<500	32	<5.0	<5.0	<5.0	2,400
03/31/97	593.10	588.42	4.68	--	--	3400	960	51	64	140	2,100
06/23/97	593.10	588.36	4.74	--	--	1600	580	19	8.2	27	2,300
09/02/97	593.10	588.33	4.77	--	--	6900	1400	59	130	410	3,100
12/15/97	593.10	588.60	4.50	--	--	3300	1200	37	74	130	3,700
03/10/98	593.10	588.92	4.18	--	--	1100	250	19	13	62	4,000
06/16/98	593.10	586.53	6.57	--	--	1200	350	<10	12	39	4,500
08/25/98	593.10	586.30	6.80	--	--	290	24	0.72	0.87	1.9	3,600
12/29/98	593.10	586.80	6.30	--	--	3190	957	<25	<25	<25	8,100/8,500 <sup>1</sup>
03/09/99	593.10	585.87	7.23	--	--	2200	850	15	35	56	5,900
06/23/99 <sup>2</sup>	593.10	585.60	7.50	--	--	--	--	--	--	--	--
09/28/99	593.10	586.15	6.95	--	--	1390	7.85	<5.0	<5.0	<5.0	4,190
02/29/00	593.10	586.09	7.01	--	--	<50	1.35	<0.5	<0.5	<0.5	310
08/29/00	593.10	586.58	6.52	0.00	--	150 <sup>3</sup>	60	<0.50	0.79	0.78	570
03/27/01	593.10	587.29	5.81	0.00	--	986	27.2	<2.50	3.25	4.11	252
09/05/01 <sup>4</sup>	593.10	586.72	6.38	0.00	3,800 <sup>5</sup>	330	140	0.84	<0.50	<1.5	580/520 <sup>1</sup>
03/04/02 <sup>4</sup>	593.10	587.44	5.66	0.00	2,900 <sup>6</sup>	170	67	<0.50	<0.50	<1.5	510



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

WELL ID/ DATE	TOC* ( <i>ft.</i> )	GWE ( <i>msl</i> )	DTW ( <i>ft.</i> )	SPHT ( <i>ft.</i> )	TPH-DRO ( <i>µg/L</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>C-4 (cont)</b>											
09/03/02 <sup>4</sup>	593.10	586.62	6.48	0.00	1,900 <sup>6</sup>	<50	12	<0.50	<0.50	<1.5	64
03/29/03 <sup>4</sup>	593.10	587.26	5.84	0.00	950 <sup>6</sup>	<50	3.3	<0.5	<0.5	<1.5	67
09/23/03 <sup>4,7</sup>	593.10	586.91	6.19	0.00	57 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	12
03/17/04 <sup>7,8</sup>	593.10	587.12	5.98	0.00	1,900 <sup>6</sup>	1,500	310	5	2	4	520
09/13/04 <sup>7</sup>	593.10	588.22	4.88	0.00	1,300 <sup>6</sup>	840	260	3	2	1	990
03/11/05 <sup>7</sup>	593.10	589.20	3.90	0.00	2,900 <sup>6</sup>	350	66	1	<1	<1	1,100
09/29/05 <sup>7</sup>	593.10	585.07	8.03	0.00	2,500 <sup>6</sup>	740	160	2	1	<1	1,500
03/20/06 <sup>7</sup>	593.10	589.47	3.63	0.00	1,200 <sup>6</sup>	1,400	300	5	1	2	1,600
08/25/06 <sup>7</sup>	593.10	588.30	4.80	0.00	1,300 <sup>6</sup>	450	82	2	<0.5	<0.5	1,300
03/12/07 <sup>7</sup>	593.10	585.50	7.60	0.00	-- <sup>10</sup>	670	110	1	<0.5	<0.5	1,100
03/21/07	593.10	585.07	8.03	0.00	1,800 <sup>6</sup>	--	--	--	--	--	--
09/21/07 <sup>7</sup>	593.10	585.20	7.90	0.00	2,100 <sup>6</sup>	260	18	<0.5	<0.5	<0.5	1,100
03/10/08 <sup>7</sup>	593.10	585.69	7.41	0.00	7,500 <sup>6</sup>	560	72	1	<0.5	<0.5	1,100
03/15/08	593.10	586.45	6.65	0.00	--	--	--	--	--	--	--
09/15/08 <sup>7</sup>	593.10	585.10	8.00	0.00	5,200 <sup>6</sup>	760	110	2	0.6	<0.5	1,100
<b>03/03/09<sup>7</sup></b>	<b>593.10</b>	<b>585.94</b>	<b>7.16</b>	<b>0.00</b>	<b>1,800<sup>6</sup></b>	<b>1,700</b>	<b>360</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>900</b>
<b>C-1</b>											
03/25/91	595.82	592.54	3.28	--	--	54	0.7	<0.5	<0.5	2.0	--
07/01/91	595.82	592.39	3.43	--	--	730	250	3.0	16	4.8	--
09/25/91	595.82	591.67	4.15	--	--	160	68	1.3	6.1	1.3	--
12/23/91	595.82	592.11	3.71	--	--	170	70	1.6	3.5	2.4	--
03/24/92	595.82	592.80	3.02	--	--	60	39	4.4	3.9	9.1	--
06/23/92	595.82	592.06	3.76	--	--	60	19	1.1	1.1	1.0	--
NOT MONITORED/SAMPLED											
<b>TRIP BLANK</b>											
03/25/91	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/01/91	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/91	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/23/91	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/24/92	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/23/92	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/30/92	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>TRIP BLANK (cont)</b>											
12/16/92	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/30/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/10/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/02/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
12/06/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/02/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/03/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/07/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/06/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/31/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/15/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/31/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/02/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/15/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/10/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/16/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
08/25/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/29/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
03/09/99	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/28/99	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/29/00	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
08/29/00	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
03/27/01	--	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500
09/05/01	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
03/04/02	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
<b>QA</b>											
09/03/02	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
03/29/03	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
09/23/03 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/19/04 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/13/04 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/11/05 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
QA (cont)											
09/29/05 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/20/06 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/25/06 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/12/07 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/21/07 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/08 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/15/08 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>03/03/09<sup>7</sup></b>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to August 29, 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

SPHT = Separate Phase Hydrocarbon Thickness

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH = Total Petroleum Hydrocarbons

DRO = Diesel Range Organics

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.

\*\* GWE corrected for the presence of Separate Phase Hydrocarbons (SPH), correction factor:  $[(TOC-DTW)+(SPHT \times 0.80)]$ .

<sup>1</sup> Confirmation run.

<sup>2</sup> ORC installed.

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

<sup>4</sup> ORC in well.

<sup>5</sup> Although requested on the Chain of Custody; Laboratory did not perform TPH-D analysis with silica-gel cleanup.

<sup>6</sup> Analyzed with silica gel cleanup.

<sup>7</sup> BTEX and MTBE by EPA Method 8260.

<sup>8</sup> ORC removed.

<sup>9</sup> Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range later than #2 fuel and is also due to individual peaks eluting in the DRO range.

<sup>10</sup> Sample containers were lost during shipping.

**Table 2**  
**Dissolved Oxygen Concentrations**  
 Chevron Service Station #9-1740  
 6550 Moraga Avenue  
 Oakland, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
C-2	08/29/00	1.97	--
	03/27/01	3.60	--
	09/05/01	2.80	--
	03/04/02	3.10	--
	09/03/02	2.70	--
	03/29/03	2.20	--
	09/23/03	0.50	--
C-4	08/29/00	2.11	--
	03/27/01	2.90	--
	09/05/01	2.30	--
	03/04/02	2.90	--
	09/03/02	2.10	--
	03/29/03	1.90	--
	09/23/03	0.40	--

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**EXPLANATIONS:**

(mg/L) = Milligrams per liter

-- = Not Measured

**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
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)
C-2	09/05/01	--	<100	1,000	<2	240	30	<2	<2
	09/23/03	<50	--	12	--	--	--	--	--
	03/19/04	<50	--	370	--	--	--	--	--
	09/13/04	<50	--	530	--	--	--	--	--
	03/11/05	<50	--	580	--	--	--	--	--
	09/29/05	<50	--	320	--	--	--	--	--
	03/20/06	<50	--	500	--	--	--	--	--
	08/25/06	<50	--	460	--	--	--	--	--
	03/12/07	<50	--	110	--	--	--	--	--
	09/21/07	<50	--	180	--	--	--	--	--
	03/10/08	<50	--	170	--	--	--	--	--
	09/15/08	<50	--	150	--	--	--	--	--
<b>03/03/09</b>	<b>&lt;50</b>	<b>--</b>	<b>54</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	
C-3	09/05/01	--	<100	<2	<2	<2	<2	<2	<2
	03/19/04	<50	--	2	--	--	--	--	--
	09/13/04	SAMPLED ANNUALLY		--	--	--	--	--	--
	03/11/05	<50	--	2	--	--	--	--	--
	03/20/06	<50	--	3	--	--	--	--	--
	03/12/07	<50	--	2	--	--	--	--	--
	03/10/08	<50	--	3	--	--	--	--	--
	09/15/08	SAMPLED ANNUALLY		--	--	--	--	--	--
<b>03/03/09</b>	<b>&lt;50</b>	<b>--</b>	<b>3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	
C-4	09/05/01	--	<100	520	<2	<2	15	<2	<2
	09/23/03	<50	--	12	--	--	--	--	--
	03/19/04	<50	--	520	--	--	--	--	--
	09/13/04	<100	--	990	--	--	--	--	--
	03/11/05	<100	--	1,100	--	--	--	--	--
	09/29/05	<100	--	1,500	--	--	--	--	--
	03/20/06	<50	--	1,600	--	--	--	--	--
	08/25/06	<50	--	1,300	--	--	--	--	--
	03/12/07	<50	--	1,100	--	--	--	--	--
	09/21/07	<50	--	1,100	--	--	--	--	--

**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Chevron Service Station #9-1740  
 6550 Moraga Avenue  
 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)
C-4 (cont)	03/10/08	<50	--	1,100	--	--	--	--	--
	09/15/08	<50	--	1,100	--	--	--	--	--
	03/03/09	<100	--	900	--	--	--	--	--



**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

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**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 #9-1740 Job Number: 386507  
 Site Address: 6550 Moraga Avenue Event Date: 3-3-09 (inclusive)  
 City: Oakland, CA Sampler: Joe

Well ID: C-2 Date Monitored: 3-3-09  
 Well Diameter: 2 in.  
 Total Depth: 26.90 ft.  
 Depth to Water: 4.65 ft.  Check if water column is less than 0.50 ft.  
 $22.25 \times VF \ 0.17 = 3.78$  x3 case volume = Estimated Purge Volume: 116 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.10

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): 1207 Weather Conditions: showers  
 Sample Time/Date: 1230 13-3-09 Water Color: clear Odor: Y10  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 5.02

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1215</u>	<u>4</u>	<u>6.96</u>	<u>1041</u>	<u>15.6</u>	_____	_____
<u>1220</u>	<u>8</u>	<u>7.16</u>	<u>987</u>	<u>15.4</u>	_____	_____
<u>1225</u>	<u>11.5</u>	<u>7.20</u>	<u>976</u>	<u>15.5</u>	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-2</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8260)/ETHANOL (8260)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-D w/sg (8015)

**COMMENTS:**

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



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-1740 Job Number: 386507  
 Site Address: 6550 Moraga Avenue Event Date: 3-3-09 (inclusive)  
 City: Oakland, CA Sampler: See

Well ID: C-3 Date Monitored: 3-3-09  
 Well Diameter: 2 in.  
 Total Depth: 18.88 ft.  
 Depth to Water: 5.92 ft.  Check if water column is less than 0.50 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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.51  
 $12.96 \times VF 0.17 = 2.20$  x3 case volume = Estimated Purge Volume: 7 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): 1130 Weather Conditions: showers  
 Sample Time/Date: 1200/3-3-09 Water Color: clear Odor: YIP  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 6.11

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>1140</u>	<u>2.5</u>	<u>7.15</u>	<u>1048</u>	<u>16.6</u>		
<u>1140</u>	<u>5</u>	<u>7.20</u>	<u>1062</u>	<u>16.1</u>		
<u>1152</u>	<u>7</u>	<u>7.25</u>	<u>1056</u>	<u>16.0</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-3</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8260)/ETHANOL (8260)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-D w/sg (8015)

### COMMENTS:

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-1740 Job Number: 386507  
 Site Address: 6550 Moraga Avenue Event Date: 3-3-09 (inclusive)  
 City: Oakland, CA Sampler: [Signature]

Well ID: C-4 Date Monitored: 3-3-09  
 Well Diameter: 2 in.  
 Total Depth: 24.76 ft.  
 Depth to Water: 7.16 ft.  Check if water column is less than 0.50 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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.67  
 $17.60 \times VF \ 0.17 = 2.99$  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:	_____ gal
Product Transferred to:	_____

Start Time (purge): 1233 Weather Conditions: Showers  
 Sample Time/Date: 1200 / 3-3-09 Water Color: clear Odor: 1 N strong  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.04

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <del>FS</del> )	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1240</u>	<u>3</u>	<u>6.62</u>	<u>619</u>	<u>16.4</u>		
<u>1247</u>	<u>6</u>	<u>6.65</u>	<u>630</u>	<u>16.2</u>		
<u>1252</u>	<u>9</u>	<u>6.57</u>	<u>634</u>	<u>16.6</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-4</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8260)/ETHANOL (8260)
	<u>7</u> x 500ml ambers	YES	NP	LANCASTER	TPH-D w/sg (8015)

COMMENTS: Pressure inside well. Keep face away while opening

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

# Chevron California Region Analysis Request/Chain of Custody



030309-04

For Lancaster Laboratories use only  
 Acct #: 12099 Sample #: 5612974-77 Group #: 016509

CRA MTI Project #: 61H-1978

Analyses Requested

1134453

Facility #: SS#9-1740 G-R#386507 Global ID#T0600100353  
 Site Address: 6550 MORAGA AVENUE, OAKLAND, CA  
 Chevron PM: MTI Lead Consultant: CRAKJ  
 Consultant/Office: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568  
 Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com)  
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899  
 Sampler: JOE ASEMIAN

Matrix	Preservation Codes										
	H	H								H	
Soil <input type="checkbox"/> Potable <input type="checkbox"/> NPDES											
Water <input type="checkbox"/> Air											
Oil											
Total Number of Containers											

**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	Total Number of Containers	BTEX + MTBE 8260	TPH 8015 MOD GRO	TPH 8015 MOD DRO	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method	Ethanol (8260)
QA			✓			✓			2	✓	✓						
C-2	3.3.09	1200	↓			↓			2	✓	✓	✓					
C-3	↓	1200	↓			↓			2	✓	✓	✓					
C-4	↓	1300	↓			↓			2	✓	✓	✓					

**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  
 Type VI (Raw Data)  Coelt Deliverable not needed  
 WIP (RWQCB)  
 Disk

Relinquished by: [Signature] Date: 3.3.09 Time: 1400 Received by: [Signature] Date: 03 MAR 09 Time: 1400

Relinquished by: [Signature] Date: 3/3/09 Time: 1500 Received by: Fed Ex Date: Time:

Relinquished by: [Signature] Date: Time: Received by: Date: Time:

Relinquished by Commercial Carrier: UPS  FedEx Other: Received by: [Signature] Date: 3/3/09 Time: 0900

Temperature Upon Receipt: 13-22 °C Custody Seals intact?  Yes  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

MAR 17 2009

GETTLER-RYAN INC.  
GENERAL CONTRACTORSSAMPLE GROUP

The sample group for this submittal is 1134453. Samples arrived at the laboratory on Wednesday, March 04, 2009. The PO# for this group is 91740 and the release number is MTI.

Client DescriptionQA-T-090303 NA Water  
C-2-W-090303 Grab Water  
C-3-W-090303 Grab Water  
C-4-W-090303 Grab WaterLancaster Labs Number5612974  
5612975  
5612976  
5612977ELECTRONIC      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, appearing to read "Christine Dulaney".

Christine Dulaney  
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. WW5612974

Group No. 1134453

QA-T-090303 NA Water  
Facility# 91740 Job# 386507 MTI# 61H-1978 GRD  
6550 Moraga Ave-Oakland T0600100353 QA  
Collected: 03/03/2009

Account Number: 12099

Submitted: 03/04/2009 09:10  
Reported: 03/16/2009 at 11:34  
Discard: 04/16/2009

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

MAOQA

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	03/07/2009 02:20	Tyler O Griffin	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	03/10/2009 06:02	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/07/2009 02:20	Tyler O Griffin	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/10/2009 06:02	Michael A Ziegler	1



# Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW5612975

Group No. 1134453

C-2-W-090303 Grab Water

Facility# 91740 Job# 386507 MTI# 61H-1978 GRD

6550 Moraga Ave-Oakland T0600100353 C-2

Collected: 03/03/2009 12:30 by JA

Account Number: 12099

Submitted: 03/04/2009 09:10

Reported: 03/16/2009 at 11:34

Discard: 04/16/2009

Chevron c/o CRA

Suite 110

2000 Opportunity Drive

Roseville CA 95678

MAOC2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	Detection Limit	ug/l	1
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	ug/l	1
06067	BTEX, MTBE, ETOH					
01587	Ethanol	64-17-5	N.D.	50	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	54	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		
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	03/06/2009 16:47	Diane V Do	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	03/09/2009 23:10	Robert L Garrett	1
06067	BTEX, MTBE, ETOH	SW-846 8260B	1	03/10/2009 06:02	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/09/2009 23:10	Robert L Garrett	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/10/2009 06:02	Michael A Ziegler	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	03/05/2009 16:45	Timothy J Attenberger	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. WW5612976

Group No. 1134453

C-3-W-090303 Grab Water  
 Facility# 91740 Job# 386507 MTI# 61H-1978 GRD  
 6550 Moraga Ave-Oakland T0600100353 C-3  
 Collected: 03/03/2009 12:00 by JA

Account Number: 12099

Submitted: 03/04/2009 09:10  
 Reported: 03/16/2009 at 11:34  
 Discard: 04/16/2009

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

MAOC3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received	Units	Dilution Factor
				Method		
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	55	Detection Limit 50	ug/l	1
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	ug/l	1
06067	BTEX, MTBE, ETOH					
01587	Ethanol	64-17-5	N.D.	50	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	3	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	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	03/06/2009 17:07	Diane V Do	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	03/09/2009 23:34	Robert L Garrett	1
06067	BTEX, MTBE, ETOH	SW-846 8260B	1	03/10/2009 06:25	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/09/2009 23:34	Robert L Garrett	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/10/2009 06:25	Michael A Ziegler	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	03/05/2009 16:45	Timothy J Attenberger	1

**Lancaster Laboratories Sample No. WW5612977**
**Group No. 1134453**
**C-4-W-090303 Grab Water**  
**Facility# 91740 Job# 386507 MTI# 61H-1978 GRD**  
**6550 Moraga Ave-Oakland T0600100353 C-4**  
 Collected: 03/03/2009 13:00 by JA

Account Number: 12099

 Submitted: 03/04/2009 09:10  
 Reported: 03/16/2009 at 11:34  
 Discard: 04/16/2009

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

MAOC4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	1,800	Detection Limit	ug/l	1
01728	TPH-GRO N. CA water C6-C12	n.a.	1,700	50	ug/l	5
06067	BTEX, MTBE, ETOH					
01587	Ethanol	64-17-5	N.D.	100	ug/l	2
02010	Methyl Tertiary Butyl Ether	1634-04-4	900	1	ug/l	2
05401	Benzene	71-43-2	360	1	ug/l	2
05407	Toluene	108-88-3	5	1	ug/l	2
05415	Ethylbenzene	100-41-4	2	1	ug/l	2
06310	Xylene (Total)	1330-20-7	1	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		Analyst	Dilution Factor
			Trial#	Date and Time		
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	03/06/2009 17:27	Diane V Do	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	03/09/2009 23:59	Robert L Garrett	5
06067	BTEX, MTBE, ETOH	SW-846 8260B	1	03/12/2009 04:08	Michael A Ziegler	2
01146	GC VOA Water Prep	SW-846 5030B	1	03/09/2009 23:59	Robert L Garrett	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/12/2009 04:08	Michael A Ziegler	2
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	03/05/2009 16:45	Timothy J Attenberger	1

## Quality Control Summary

 Client Name: Chevron c/o CRA  
 Reported: 03/16/09 at 11:34 AM

Group Number: 1134453

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: 090640011A TPH-DRO CA C10-C28 w/ Si Gel	Sample number(s): 5612975-5612977 N.D.	32.	ug/l	95	99	60-124	4	20
Batch number: 09065A07A TPH-GRO N. CA water C6-C12	Sample number(s): 5612974 N.D.	50.	ug/l	118	109	75-135	8	30
Batch number: 09068A08A TPH-GRO N. CA water C6-C12	Sample number(s): 5612975-5612977 N.D.	50.	ug/l	100	109	75-135	9	30
Batch number: D090703AA	Sample number(s): 5612977							
Ethanol	N.D.	50.	ug/l	85		40-158		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	103		78-117		
Benzene	N.D.	0.5	ug/l	102		80-116		
Toluene	N.D.	0.5	ug/l	101		80-115		
Ethylbenzene	N.D.	0.5	ug/l	102		80-113		
Xylene (Total)	N.D.	0.5	ug/l	98		81-114		
Batch number: E090682AA	Sample number(s): 5612975-5612976							
Ethanol	N.D.	50.	ug/l	101		40-158		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	92		78-117		
Benzene	N.D.	0.5	ug/l	95		80-116		
Toluene	N.D.	0.5	ug/l	98		80-115		
Ethylbenzene	N.D.	0.5	ug/l	94		80-113		
Xylene (Total)	N.D.	0.5	ug/l	96		81-114		
Batch number: Z090683AA	Sample number(s): 5612974							
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	104		78-117		
Benzene	N.D.	0.5	ug/l	105		80-116		
Toluene	N.D.	0.5	ug/l	111		80-115		
Ethylbenzene	N.D.	0.5	ug/l	111		80-113		
Xylene (Total)	N.D.	0.5	ug/l	112		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: 09065A07A TPH-GRO N. CA water C6-C12	Sample number(s): 5612974 UNSPK: P612968 127		63-154						
Batch number: 09068A08A	Sample number(s): 5612975-5612977 UNSPK: P612990								

\*- 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: 03/16/09 at 11:34 AM

Group Number: 1134453

### 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>
TPH-GRO N. CA water C6-C12	118		63-154						
Batch number: D090703AA	Sample number(s): 5612977 UNSPK: P616550								
Ethanol	95	106	37-164	10	30				
Methyl Tertiary Butyl Ether	101	107	72-126	5	30				
Benzene	106	109	80-126	3	30				
Toluene	104	108	80-125	3	30				
Ethylbenzene	103	108	77-125	4	30				
Xylene (Total)	99	104	79-125	5	30				
Batch number: E090682AA	Sample number(s): 5612975-5612976 UNSPK: P611591								
Ethanol	80	112	37-164	34*	30				
Methyl Tertiary Butyl Ether	83	88	72-126	6	30				
Benzene	87	93	80-126	6	30				
Toluene	92	97	80-125	6	30				
Ethylbenzene	89	94	77-125	6	30				
Xylene (Total)	90	96	79-125	6	30				
Batch number: Z090683AA	Sample number(s): 5612974 UNSPK: P610275								
Methyl Tertiary Butyl Ether	106	110	72-126	3	30				
Benzene	109	110	80-126	0	30				
Toluene	114	116	80-125	2	30				
Ethylbenzene	114	117	77-125	3	30				
Xylene (Total)	112	115	79-125	3	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-DRO CA C10-C28 w/ Si Gel  
 Batch number: 090640011A  
 Orthoterphenyl

5612975	110
5612976	100
5612977	102
Blank	104
LCS	115
LCSD	120

Limits: 59-131

 Analysis Name: TPH-GRO N. CA water C6-C12  
 Batch number: 09065A07A  
 Trifluorotoluene-F

5612974	100
Blank	101
LCS	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: 03/16/09 at 11:34 AM

Group Number: 1134453

### Surrogate Quality Control

 LCSD 113  
 MS 116

Limits: 63-135

 Analysis Name: TPH-GRO N. CA water C6-C12  
 Batch number: 09068A08A  
 Trifluorotoluene-F

 5612975 94  
 5612976 97  
 5612977 108  
 Blank 94  
 LCS 98  
 LCSD 98  
 MS 98

Limits: 63-135

 Analysis Name: BTEX, MTBE, ETOH  
 Batch number: D090703AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5612977	90	92	89	88
Blank	89	89	89	86
LCS	89	89	89	91
MS	89	88	88	90
MSD	90	90	89	90

Limits: 80-116

77-113

80-113

78-113

 Analysis Name: BTEX, MTBE, ETOH  
 Batch number: E090682AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5612975	90	91	95	92
5612976	91	92	93	91
Blank	91	90	95	92
LCS	89	92	95	96
MS	90	90	95	97
MSD	90	89	94	95

Limits: 80-116

77-113

80-113

78-113

 Analysis Name: BTEX+MTBE by 8260B  
 Batch number: Z090683AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5612974	94	92	92	82
Blank	93	91	95	85
LCS	90	90	94	90
MS	90	92	95	90
MSD	91	91	96	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: 03/16/09 at 11:34 AM

Group Number: 1134453

\*- 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

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

### Inorganic Qualifiers

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

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

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

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