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9:40 am, May 05, 2010

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

May 3, 2010  
(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 2010 Annual Groundwater Monitoring Report and dated May 3, 2010.

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

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

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

Sincerely,

Stacie H. Frerichs  
Project Manager

Enclosure: Report



May 3, 2010

Reference No. 611978

Mr. Mark Detterman, P.G., C.E.G.  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: 2010 Annual Groundwater Monitoring Report  
Chevron Service Station No. 9-1740  
6550 Moraga Avenue  
Oakland, California  
LOP Case RO0000256

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Dear Mr. Detterman:

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 April 15, 2010) presents the results of the 2010 annual monitoring event. Sampling of wells C-2 through C-4 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 2010 annual analytical results along with a rose diagram. The monitoring results during 2010 are summarized below.

During 2010, petroleum hydrocarbon concentrations in the site wells were similar to or less than those observed during 2009. Elevated concentrations of total petroleum hydrocarbons as diesel (TPHd) (1,600 micrograms per liter [ $\mu\text{g/L}$ ]), TPH as gasoline (TPHg) (2,100  $\mu\text{g/L}$ ), benzene (270  $\mu\text{g/L}$ ), and methyl tertiary butyl ether (MTBE) (470  $\mu\text{g/L}$ ) continue to be detected in well C-4. The detected concentrations were within historical ranges in this well; however, the detected MTBE concentration was the lowest since 2003. Low concentrations of toluene (7  $\mu\text{g/L}$ ), ethylbenzene (2  $\mu\text{g/L}$ ), and xylenes (3  $\mu\text{g/L}$ ) were also detected in well C-4 during 2010; these concentrations were also within historical ranges.

Only a low concentration of TPHd (62  $\mu\text{g/L}$ ) and a relatively low concentration of MTBE (50  $\mu\text{g/L}$ ) were detected in well C-2 during 2010. TPHg is only periodically detected in well C-2, and only at low concentrations; and benzene, toluene, ethylbenzene, and xylenes (BTEX) have not been detected since 1999. Although fluctuations occur, the MTBE concentrations in well C-2 continue to decrease and have significantly decreased since the start of monitoring. Only low concentrations of TPHd (77  $\mu\text{g/L}$ ) and MTBE (3  $\mu\text{g/L}$ ) were detected in well C-3 during 2010. Petroleum hydrocarbons generally have not been detected in this well throughout the course of monitoring with the exception of low concentrations of MTBE.



May 3, 2010

2

Reference No. 611978

Based on the analytical results, impacted groundwater remains beneath the site in the area of well C-4 just downgradient of the underground storage tanks (USTs); concentrations in this well have remained relatively stable. Generally only low concentrations remain in wells C-2 and C-3. Based on previous investigation results, the extent of impacted groundwater has been adequately defined to the extent possible. Based on this information and the site conditions, the site appears to be a good candidate for low-risk case closure. CRA previously prepared and submitted to Alameda County Environmental Health (ACEH) the August 18, 2008 *Site Conceptual Model and Case Closure Request*, and we are currently awaiting a response. In the meantime, monitoring and sampling will continue if necessary to further evaluate groundwater quality and concentration trends.

Please contact Mr. James Kiernan at (916) 889-8917 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Christopher J. Benedict

James P. Kiernan, P.E. C68498

CB/jt/4  
Encl.

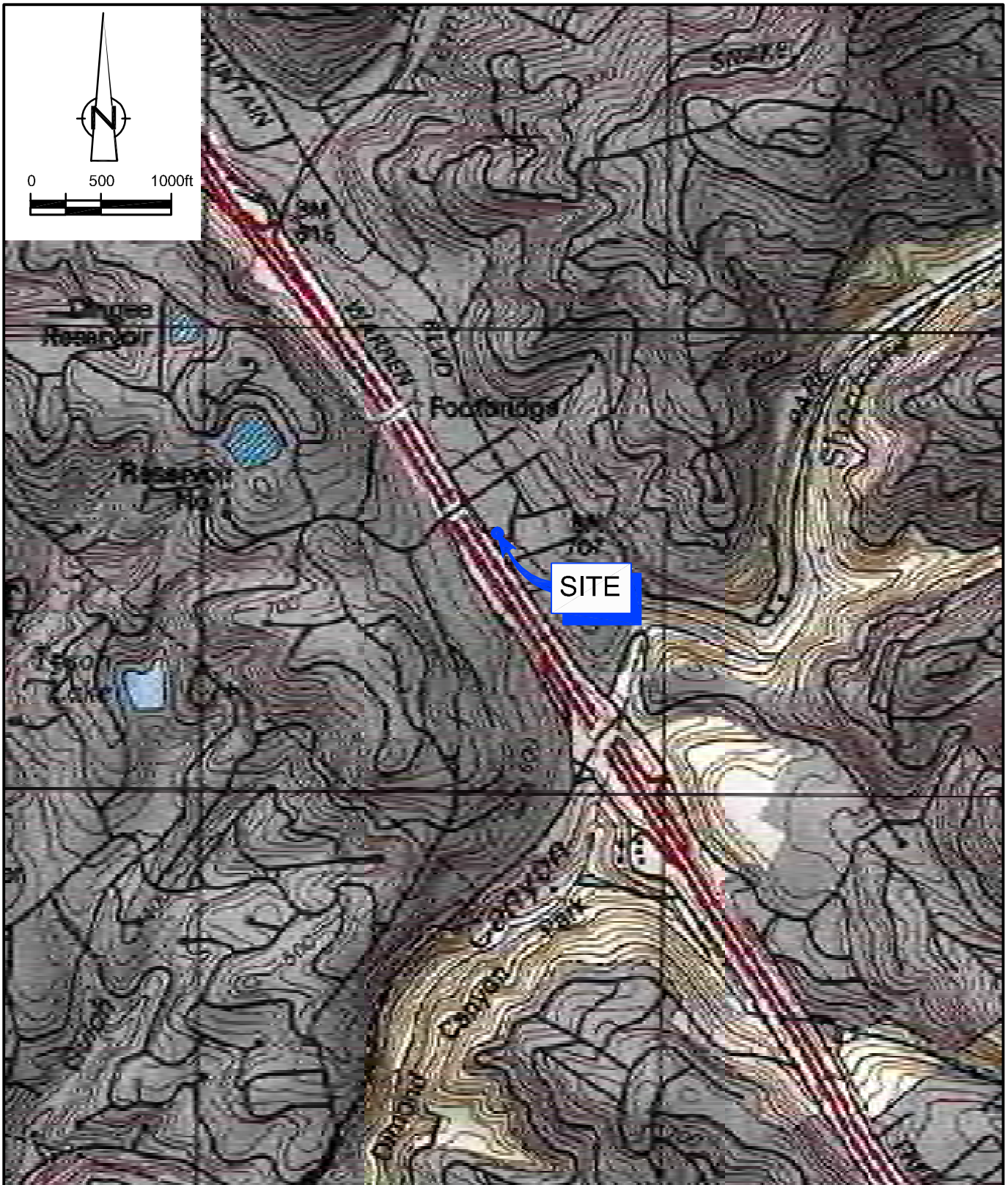
Figure 1 Vicinity Map  
Figure 2 Concentration Map - March 24, 2010

Attachment A 2010 Annual Groundwater Monitoring and Sampling Report

cc: Ms. Stacie Frerichs, Chevron  
Mr. Douglas Durein, Ken Betts, Inc.



## FIGURES

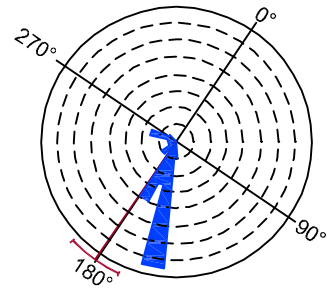


SOURCE: TOPOIMAP

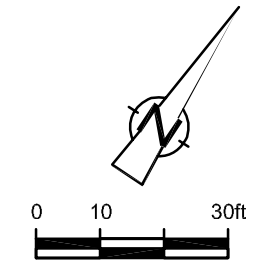
figure 1

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

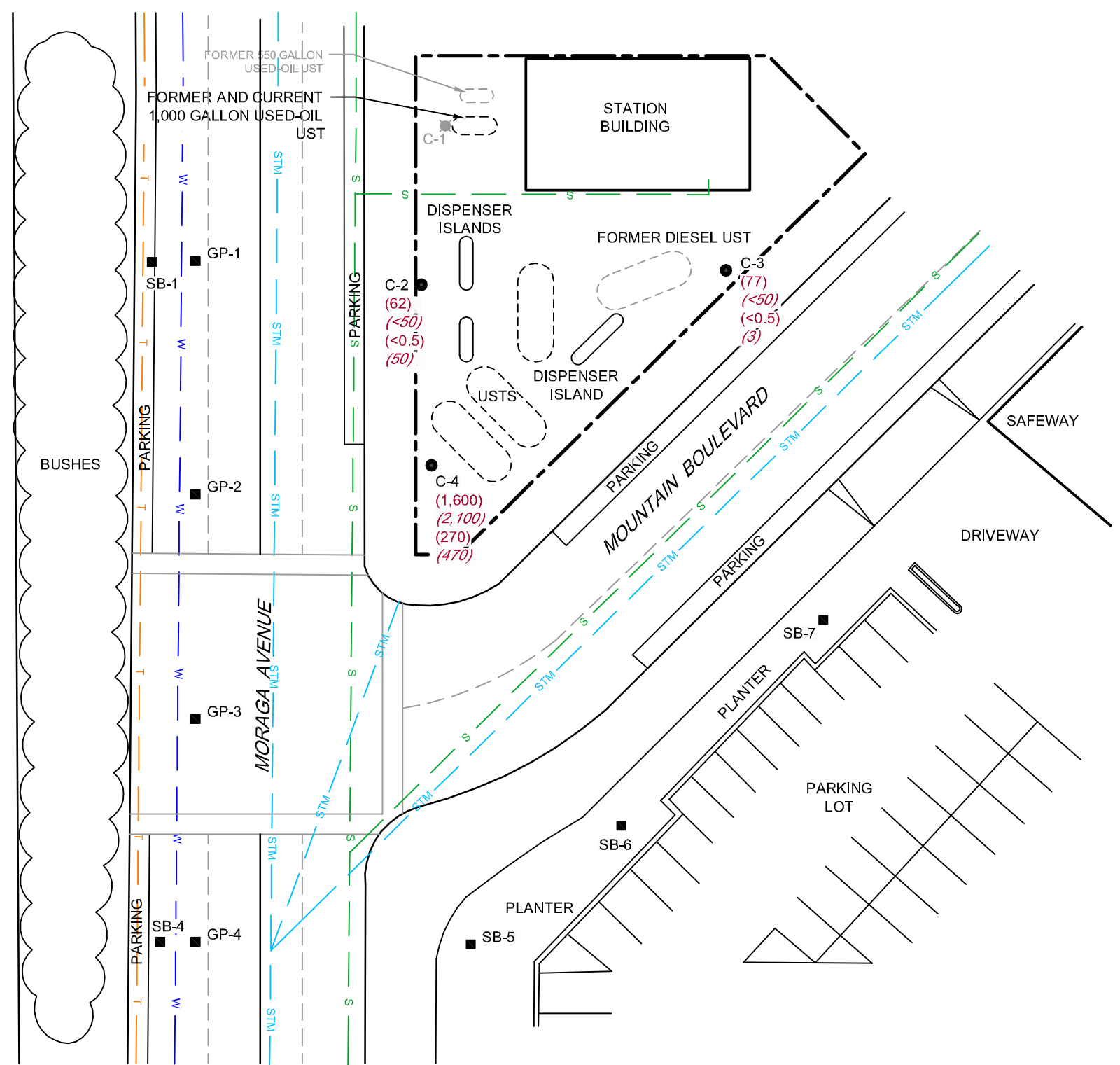




HISTORICAL GROUNDWATER FLOW DIRECTION



WARREN FREEWAY (STATE ROUTE 13)



**LEGEND**

- GP-1 ■ SOIL BORING LOCATION
- C-2 ● MONITORING WELL LOCATION
- C-1 ■ DESTROYED MONITORING WELL LOCATION
- S SEWER LINE
- STM STORM DRAIN
- W WATER LINE
- T SBC LINE
- (59) TPHd CONCENTRATION (ug/L)
- (57) TPHg CONCENTRATION (ug/L)
- (<0.5) BENZENE CONCENTRATION (ug/L)
- (150) MTBE CONCENTRATION (ug/L)
- < NOT DETECTED AT OR ABOVE STATED REPORTING LIMIT

figure 2  
 CONCENTRATION MAP - MARCH 24, 2010  
 CHEVRON SERVICE STATION 9-1740  
 6550 MORAGA AVENUE  
 Oakland, California



\* FEATURES OUTSIDE OF SERVICE STATION NOT SURVEYED

ATTACHMENT A

2010 ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT



# GETTLER-RYAN INC.



## TRANSMITTAL

April 23, 2010  
G-R #386507

TO: Mr. James Kiernan  
Conestoga-Rovers & Associates  
10969 Trade Center Drive, Suite 107  
Rancho Cordova, CA 95670

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	April 15, 2010	Groundwater Monitoring and Sampling Report Annual Event of March 24, 2010

### 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 **May 6, 2010**, 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. Mark Detterman, 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





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 23, 2010  
(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 23, 2010.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by 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: 3-24-10  
 Sampler: Joe

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"PEMCO/3	↓

Comments \_\_\_\_\_  
 \_\_\_\_\_  
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# GETTLER - RYAN INC.



April 15, 2010  
G-R Job #386507

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

**RE: Annual Event of March 24, 2010**  
Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-1740  
6550 Moraga Avenue  
Oakland, California

Dear Ms. 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.

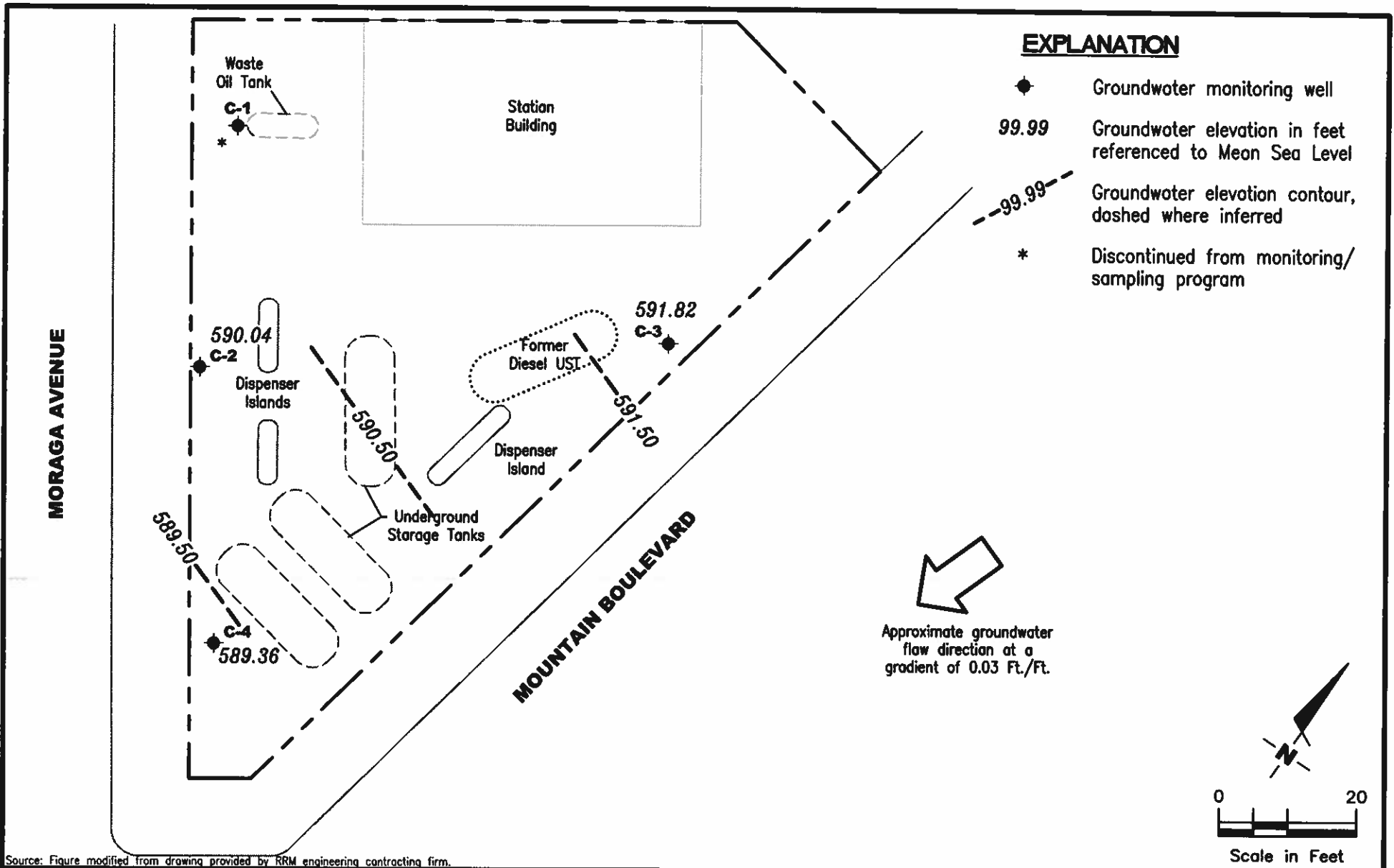
Sincerely,

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.

**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  
 386507

REVIEWED BY

DATE  
 March 24, 2010

REVISED DATE

**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-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
08/31/09 <sup>7</sup>	594.57	588.66	5.91	0.00	<50 <sup>6</sup>	89	<0.5	<0.5	<0.5	<0.5	240
03/24/10 <sup>7</sup>	594.57	590.04	4.53	0.00	62 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	50
<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	--

**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)
<b>C-3 (cont)</b>											
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	--
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		--	--	--	--	--

**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-DRG (ug/L)	TPH-GRG (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)
<b>C-3 (cont)</b>											
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
08/31/09	597.14	590.38	6.76	0.00	SAMPLED ANNUALLY		--	--	--	--	--
03/24/10 <sup>7</sup>	597.14	591.82	5.32	0.00	77 <sup>6</sup>	<50	<0.5	<0.5	<0.5	<0.5	3
<b>C-4</b>											
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	--	--	--	--	--	--	--	--



**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-DRG (µg/L)	TPH-GRG (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>C-4 (cont)</b>											
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
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
03/03/09 <sup>7</sup>	593.10	585.94	7.16	0.00	1,800 <sup>6</sup>	1,700	360	5	2	1	900
08/31/09 <sup>7</sup>	593.10	585.17	7.93	0.00	2,000 <sup>6</sup>	2,700	440	11	3	3	930
03/24/10 <sup>7</sup>	593.10	589.36	3.74	0.00	1,600 <sup>6</sup>	2,100	270	7	2	3	470
<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											

**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</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	--
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	<2.5
12/29/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
03/09/99	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
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

**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											
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
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
03/03/09 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/31/09 <sup>7</sup>	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>DISCONTINUED</b>											

**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**  
**Groundwater Monitoring Data and Analytical Results**  
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	--

---

**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	--	--	--	--	--
	03/03/09	<50	--	54	--	--	--	--	--
	08/31/09	<50	--	240	--	--	--	--	--
03/24/10	--	--	50	--	--	--	--	--	
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		--	--	--	--	--	--
	03/03/09	<50	--	3	--	--	--	--	--
	03/24/10	--	--	3	--	--	--	--	--
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	--	--	--	--	--

**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)	03/12/07	<50	--	1,100	--	--	--	--	--
	09/21/07	<50	--	1,100	--	--	--	--	--
	03/10/08	<50	--	1,100	--	--	--	--	--
	09/15/08	<50	--	1,100	--	--	--	--	--
	03/03/09	<100	--	900	--	--	--	--	--
	08/31/09	<50	--	930	--	--	--	--	--
	03/24/10	--	--	470	--	--	--	--	--

**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. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by IWM to Chemical Waste Management located in Kettleman Hills, California.



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-1740  
 Site Address: 6550 Moraga Avenue  
 City: Oakland, CA

Job Number: 386507  
 Event Date: 3-24-10 (inclusive)  
 Sampler: Joe

Well ID: C-2  
 Well Diameter: 2 in.  
 Total Depth: 26.92 ft.  
 Depth to Water: 4.53 ft.

Date Monitored: 3-24-10

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

Check if water column is less than 0.50 ft.

22.39 xVF 0.17 = 3.81 x3 case volume = Estimated Purge Volume: 11.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.00

**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): 0755 Weather Conditions: Foggy  
 Sample Time/Date: 0830 13-24-10 Water Color: clear Odor: Y18  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: none  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 9.95

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - US)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0805</u>	<u>4</u>	<u>6.78</u>	<u>855</u>	<u>18.0</u>		
<u>0812</u>	<u>8</u>	<u>6.72</u>	<u>852</u>	<u>17.6</u>		
<u>0818</u>	<u>12</u>	<u>6.73</u>	<u>847</u>	<u>17.7</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-GRO(8015)/BTEX+MTBE(8260)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc (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: 3-24-10 (inclusive)  
 City: Oakland, CA Sampler: Joe

Well ID: C-3  
 Well Diameter: 2 in.  
 Total Depth: 18.91 ft.  
 Depth to Water: 5.32 ft.

Date Monitored: 3-24-10

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

Check if water column is less than 0.50 ft.  
 $13.59 \times VF 0.17 = 2.31$  x3 case volume = Estimated Purge Volume: 7 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.03

### 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): 0708 Weather Conditions: cloudy  
 Sample Time/Date: 0742 13-24-10 Water Color: clear Odor: Y10  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: none  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 6.08

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm -US)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>0715</u>	<u>2.5</u>	<u>7.47</u>	<u>1031</u>	<u>18.3</u>	_____	_____
<u>0720</u>	<u>5</u>	<u>7.43</u>	<u>1019</u>	<u>18.4</u>	_____	_____
<u>0727</u>	<u>7</u>	<u>7.46</u>	<u>1024</u>	<u>18.1</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-3</u>	<u>6</u> x vovial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc (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: 3-24-10 (inclusive)  
 City: Oakland, CA Sampler: Jac

Well ID: C-4 Date Monitored: 3-24-10  
 Well Diameter: 2 in.  
 Total Depth: 24.75 ft.  
 Depth to Water: 3.74 ft.  Check if water column is less than 0.50 ft.  
21.01 xVF 0.17 = 3.57 x3 case volume = Estimated Purge Volume: 11 gal.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ~~3.74~~  
7.94

**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): 0845 Weather Conditions: cloudy  
 Sample Time/Date: 0915 13-24-10 Water Color: clear Odor: 01 N Strong  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: none  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 4.36

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>0852</u>	<u>4</u>	<u>6.90</u>	<u>625</u>	<u>18.5</u>	_____	_____
<u>0900</u>	<u>7.5</u>	<u>6.73</u>	<u>634</u>	<u>18.3</u>	_____	_____
<u>0905</u>	<u>11</u>	<u>6.68</u>	<u>631</u>	<u>18.1</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-GRO(8015)/BTEX+MTBE(8260)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc (8015)

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

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

# Chevron California Region Analysis Request/Chain of Custody



032410-01

For Lancaster Laboratories use only  
 Acct. #: 12099 Sample # 5936561-63 Group #: 017814

Group # 1187491

CRA MTI Project #: 61H-1978

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 AJEMIAN

Matrix	Analyses Requested									
	Preservation Codes									
Soil <input type="checkbox"/> Potable <input type="checkbox"/> NPDES	Water <input type="checkbox"/> NPDES	Oil <input type="checkbox"/> Air	Total Number of Containers	H	H					
								BTEX + MTBE 8260 <input checked="" type="checkbox"/> 8021 <input type="checkbox"/>	TPH 8015 MOD GFO	TPH 8015 MOD DFO <input checked="" type="checkbox"/> Silica Gel Cleanup

**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 GFO	TPH 8015 MOD DFO	8260 full scan	Oxygens	Total Lead Method	Dissolved Lead Method
C-2	3-24-10	0830	✓			✓			8	✓	✓	✓				
C-3	"	0742	✓			✓			8	✓	✓	✓				
C-4	"	0915	"			✓			8	✓	✓	✓				

Comments / Remarks

**Turnaround Time Requested (TAT) (please circle)**

STD. TAT: 72 hour, 48 hour, 24 hour, 4 day, 5 day

Relinquished by: <u>[Signature]</u>	Date: <u>3-24-10</u>	Time: <u>1025</u>	Received by: <u>[Signature]</u>	Date: <u>3/24/10</u>	Time: <u>1025</u>
Relinquished by: <u>[Signature]</u>	Date: <u>3/24/10</u>	Time: <u>1630</u>	Received by: <u>[Signature]</u>	Date: <u>3/24/10</u>	Time: <u>1630</u>
Relinquished by: <u>[Signature]</u>	Date: <u>3/24/10</u>	Time: <u>1630</u>	Received by: <u>[Signature]</u>	Date: <u>3/24/10</u>	Time: <u>1630</u>
Relinquished by Commercial Carrier: UPS FedEx Other	Temperature Upon Receipt: <u>56.2's</u> °C		Received by: <u>[Signature]</u>	Date: <u>3/24/10</u>	Time: <u>1630</u>
Custody Seals Intact? <u>Yes</u> No					

**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



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-658-2300 Fax: 717-658-2881 • www.lancasterlabs.com

# Analysis Report

## 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

April 02, 2010

Project: 91740

Samples arrived at the laboratory on Thursday, March 25, 2010. The PO# for this group is 91740 and the release number is MTI. The group number for this submittal is 1187491.

Client Sample Description

C-2-W-100324 Grab Water  
C-3-W-100324 Grab Water  
C-4-W-100324 Grab Water

Lancaster Labs (LLI) #

5936561  
5936562  
5936563

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

ELECTRONIC      Gettler-Ryan, Inc.  
COPY TO

Attn: Cheryl Hansen



## ***Analysis Report***

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17603-2425 • 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,

*Michele M. Turner*

**Michele M. Turner**  
**Director**



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-658-2300 Fax: 717-658-2681 • www.lancasterlabs.com

Sample Description: C-2-W-100324 Grab Water  
Facility# 91740 Job# 386507 MTI# 61H-1978 GRD  
6550 Moraga Ave-Oakland T0600100353 C-2

LLI Sample # WW 5936561  
LLI Group # 1187491  
CA

Project Name: 91740

Collected: 03/24/2010 08:30 by JA

Account Number: 12099

Submitted: 03/25/2010 09:00  
Reported: 04/02/2010 at 12:57  
Discard: 05/03/2010

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

MORC2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	50	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles SW-846 8015B</b>			ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
<b>GC Extractable TPH SW-846 8015B</b>			ug/l	ug/l	
<b>w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	62	50	1

### General Sample Comments

State of California Lab Certification No. 2501  
Trip blank vials were not received by the laboratory for this sample group.

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D100852AA	03/26/2010 21:27	Florida A Cimino	1
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D100852AA	03/26/2010 21:27	Florida A Cimino	1
01146	GC VOA Water Prep	SW-846 5030B	1	10089C20A	03/31/2010 13:14	Elizabeth J Marin	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10089C20A	03/31/2010 13:14	Elizabeth J Marin	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100840025A	03/26/2010 09:50	Cynthia J Salvatori	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100840025A	04/01/2010 00:01	Melissa McDermott	1





# Analysis Report

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

**Sample Description:** C-3-W-100324 Grab Water  
Facility# 91740 Job# 386507 MTI# 61H-1978 GRD  
6550 Moraga Ave-Oakland T0600100353 C-3

LLI Sample # WW 5936562  
LLI Group # 1187491  
CA

**Project Name:** 91740

Collected: 03/24/2010 07:42 by JA

Account Number: 12099

Submitted: 03/25/2010 09:00

Chevron c/o CRA

Reported: 04/02/2010 at 12:57

Suite 110

Discard: 05/03/2010

2000 Opportunity Drive  
Roseville CA 95678

MORC3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	SW-846 8260B		ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	3	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b>					
	SW-846 8015B		ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
<b>GC Extractable TPH w/Si Gel</b>					
	SW-846 8015B		ug/l	ug/l	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	77	50	1

### General Sample Comments

State of California Lab Certification No. 2501  
Trip blank vials were not received by the laboratory for this sample group.

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D100852AA	03/26/2010 19:56	Florida A Cimino	1
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D100852AA	03/26/2010 19:56	Florida A Cimino	1
01146	GC VOA Water Prep	SW-846 5030B	1	10089A20A	03/30/2010 16:23	Carrie E Miller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10089A20A	03/30/2010 16:23	Carrie E Miller	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100840025A	03/26/2010 09:50	Cynthia J Salvatori	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100840025A	04/01/2010 00:21	Melissa McDermott	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-856-2300 Fax: 717-856-2681 • www.lancasterlabs.com

Page 1 of 1

**Sample Description:** C-4-W-100324 Grab Water  
Facility# 91740 Job# 386507 MTI# 61H-1978 GRD  
6550 Moraga Ave-Oakland T0600100353 C-4

LLI Sample # WW 5936563  
LLI Group # 1187491  
CA

**Project Name:** 91740

Collected: 03/24/2010 09:15 by JA

Account Number: 12099

Submitted: 03/25/2010 09:00

Chevron c/o CRA

Reported: 04/02/2010 at 12:57

Suite 110

Discard: 05/03/2010

2000 Opportunity Drive  
Roseville CA 95678

MORC4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>					
10943	Benzene	71-43-2	270	ug/l 5	10
10943	Ethylbenzene	100-41-4	2	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	470	0.5	1
10943	Toluene	108-88-3	7	0.5	1
10943	Xylene (Total)	1330-20-7	3	0.5	1
<b>GC Volatiles SW-846 8015B</b>					
01728	TPH-GRO N. CA water C6-C12	n.a.	2,100	ug/l 50	1
<b>GC Extractable TPH SW-846 8015B</b>					
<b>w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	1,600	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501  
Trip blank vials were not received by the laboratory for this sample group.

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D100852AA	03/26/2010 21:50	Florida A Cimino	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	D100852AA	03/26/2010 22:12	Florida A Cimino	10
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D100852AA	03/26/2010 21:50	Florida A Cimino	1
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D100852AA	03/26/2010 22:12	Florida A Cimino	10
01146	GC VOA Water Prep	SW-846 5030B	1	10089A20A	03/30/2010 17:07	Carrie E Miller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10089A20A	03/30/2010 17:07	Carrie E Miller	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100840025A	03/26/2010 09:50	Cynthia J Salvatori	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100840025A	04/01/2010 00:41	Melissa McDermott	1

## Quality Control Summary

 Client Name: Chevron c/o CRA  
 Reported: 04/02/10 at 12:57 PM

Group Number: 1187491

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: D100852AA	Sample number(s): 5936561-5936563							
Benzene	N.D.	0.5	ug/l	102		79-120		
Ethylbenzene	N.D.	0.5	ug/l	100		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	108		76-120		
Toluene	N.D.	0.5	ug/l	100		79-120		
Xylene (Total)	N.D.	0.5	ug/l	105		80-120		
Batch number: 10089A20A	Sample number(s): 5936562-5936563							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	118	118	75-135	0	30
Batch number: 10089C20A	Sample number(s): 5936561							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	118	118	75-135	0	30
Batch number: 100840025A	Sample number(s): 5936561-5936563							
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	32.	ug/l	86	83	52-126	4	20

### 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: D100852AA	Sample number(s): 5936561-5936563 UNSPK: 5936562								
Benzene	110	113	80-126	3	30				
Ethylbenzene	112	114	71-134	1	30				
Methyl Tertiary Butyl Ether	114	123	72-126	6	30				
Toluene	110	112	80-125	2	30				
Xylene (Total)	116	116	79-125	1	30				
Batch number: 10089A20A	Sample number(s): 5936562-5936563 UNSPK: 5936562								
TPH-GRO N. CA water C6-C12	136		63-154						
Batch number: 10089C20A	Sample number(s): 5936561 UNSPK: P938014								
TPH-GRO N. CA water C6-C12	91		63-154						

### Surrogate Quality Control

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

\*- 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: 04/02/10 at 12:57 PM

Group Number: 1187491

### Surrogate Quality Control

Analysis Name: UST VOCs by 8260B - Water  
Batch number: D100852AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5936561	98	95	99	99
5936562	99	93	98	101
5936563	98	93	98	103
Blank	98	95	97	101
LCS	100	97	98	102
MS	99	98	100	103
MSD	101	97	99	103
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12  
Batch number: 10089A20A

	Trifluorotoluene-P
5936562	94
5936563	163*
Blank	85
LCS	123
LCSD	108
MS	131
Limits:	63-135

Analysis Name: TPH-GRO N. CA water C6-C12  
Batch number: 10089C20A

	Trifluorotoluene-F
5936561	101
Blank	83
LCS	117
LCSD	120
MS	113
Limits:	63-135

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel  
Batch number: 100840025A

	Orthoterphenyl
5936561	92
5936562	89
5936563	99
Blank	89
LCS	102
LCSD	103
Limits:	59-131

\*- Outside of specification

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

## Lancaster Laboratories Explanation of Symbols and Abbreviations

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

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

U.S. EPA data qualifiers:

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

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

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

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