



# GETTLER-RYAN Inc.

## TRANSMITTAL

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9:31 am, May 10, 2010

Alameda County  
Environmental Health

November 14, 2008

G-R #386521

TO: Ms. Charlotte Evans  
Conestoga-Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608

CC: Mr. Ian Robb  
Chevron Environmental  
Management Company  
6111 Bollinger Canyon Road,  
Room 36121  
San Ramon, California 94583  
**(VIA PDF)**

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

RE: **Former Chevron Service Station  
#209339  
5940 College Avenue  
Oakland, California  
RO 0000466**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	November 14, 2008	Groundwater Monitoring and Sampling Report <b>Second Semi-Annual Event of October 15, 2008</b>

### COMMENTS:

Pursuant to your request, we are providing you with a copy of the above referenced report for **your use and distribution to the following (via PDF):**

Mr. Steven Plunkett, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577 **(Distributed by CRA via PDF)**

Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to **November 28, 2008**, at which time this final report will be distributed to the following:

cc: Mr. Donald Sweet, San Francisco Property Management Co., 155 Jefferson Street, #4,  
San Francisco, CA 94133-1224

Enclosures



**Ian Robb**  
Project Manager  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
6001 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 842-9496  
Fax (925) 842-8370  
ianrobb@chevron.com

November 14, 2008

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

RE: Chevron Service Station # 209339

Address 5940 College Ave., Oakland, California

I have reviewed the attached routine groundwater monitoring report dated November 14, 2008.

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, appearing to read "I. Robb", written in a cursive style.

Ian Robb

Attachment: Report





# GETTLER-RYAN Inc.



November 14, 2008  
G-R Job #386521

Mr. Ian Robb  
Chevron Environmental Management Company  
6111 Bollinger Canyon Road, Room 3612  
San Ramon, CA 94583

**RE: Second Semi Annual Event of October 15, 2008**  
Groundwater Monitoring & Sampling Report  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

Dear Mr. Robb:

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). A joint monitoring event was scheduled with Sheaff's Garage located at 5930 College Avenue, Oakland, California, however joint monitoring was not conducted on the same date.

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 Groundwater Elevation Map is included as Figure 1.

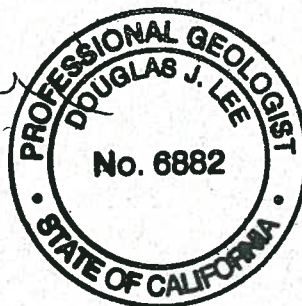
Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are 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.

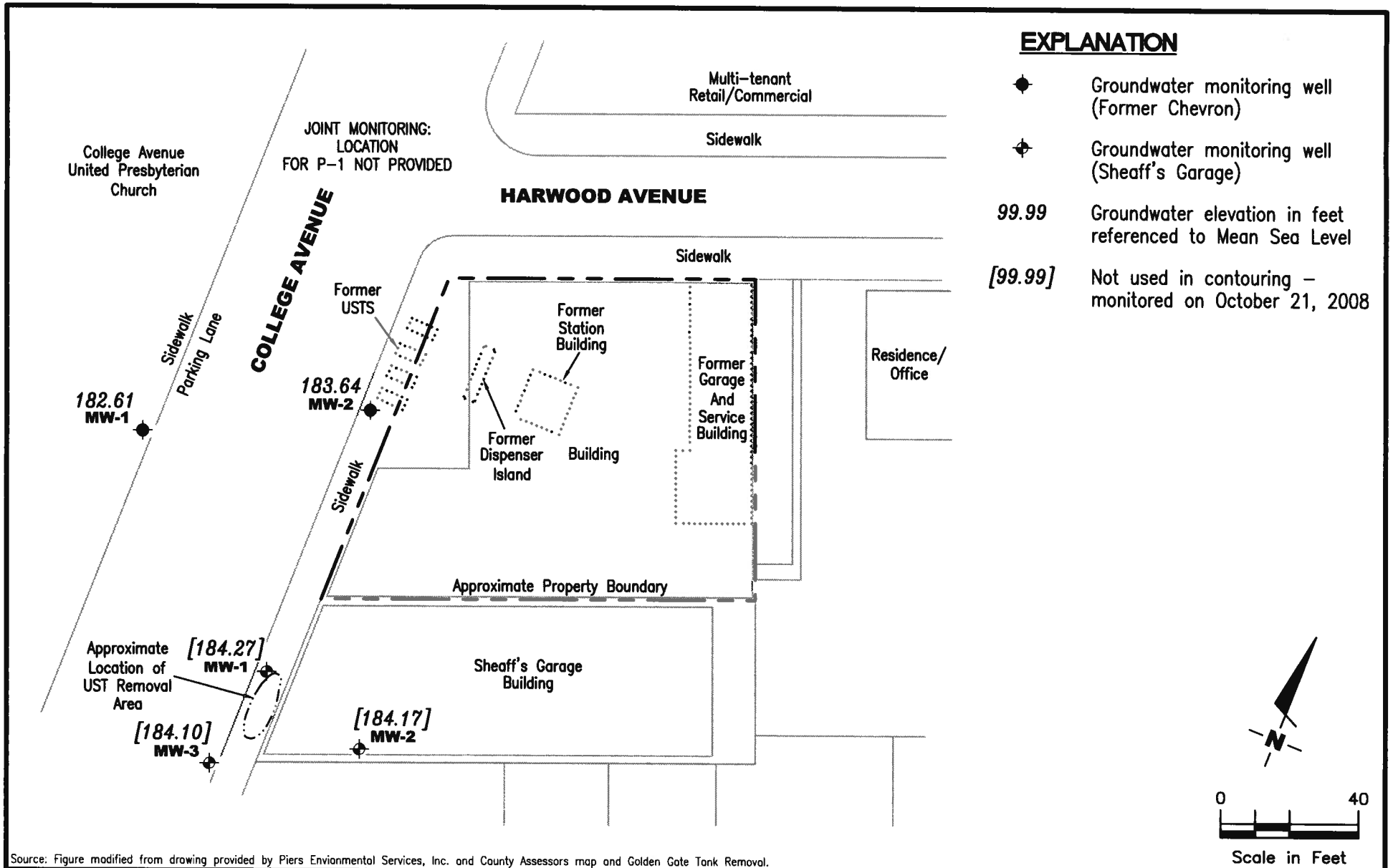
Sincerely,

Deanna L. Harding  
Project Coordinator

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



- Figure 1: Groundwater Elevation Map
- Table 1: Groundwater Monitoring Data and Analytical Results
- Table 2: Groundwater Analytical Results - Oxygenate Compounds
- Table 3: Groundwater Analytical Results
- Table 4: Field Measurements
- Table 5: Joint Groundwater Monitoring Data and Analytical Results - Sheaff's Garage
- Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports



Source: Figure modified from drawing provided by Piers Environmental Services, Inc. and County Assessors map and Golden Gate Tank Removal.

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

**GROUNDWATER ELEVATION MAP**  
 Former Chevron Service Station #209339  
 5940 College Avenue  
 Oakland, California

FIGURE

1

PROJECT NUMBER  
 386521

REVIEWED BY

DATE  
 October 15, 2008

REVISED DATE



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-1</b>									
01/03/01	196.91	12.75	184.16	930 <sup>1</sup>	2.9	6.9	2.7	7.6	14/<2.0 <sup>3</sup>
04/25/01	196.91	9.23	187.68	210 <sup>4</sup>	2.0	1.5	2.0	3.3	5.3/<2.0 <sup>3</sup>
07/09/01	196.91	11.86	185.05	290 <sup>5</sup>	1.8	2.0	2.5	0.96	<2.5
06/08/00	196.91	13.49	183.42	200	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	196.91	7.33	189.58	<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/08/02	196.91	7.45	189.46	670	<0.50	<2.0	<1.0	5.6	<2.5
10/15/02	196.91	13.68	183.23	260	0.62	0.82	<0.50	<1.5	--
04/15/03	196.91	6.82	190.09	1,700	1.3	<5.0	<2.0	<5.0	--
10/31/03	196.91	13.72	183.19	150	<2.0	0.7	<2.0	<5.0	--
04/23/04	196.91	9.02	187.89	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/04	196.91	11.50	185.41	63	<0.5	<0.5	<0.5	<1.5	--
04/14/05	196.91	7.11	189.80	<50	<0.5	<0.5	<0.5	<1.5	--
10/14/05	196.91	11.90	185.01	160	<0.5	<0.5	0.6	<5.0	--
04/14/06	196.91	6.95	189.96	<50	<0.5	<0.5	<0.5	<1.5	--
10/26/06	196.91	11.68	185.23	<50	<0.5	<0.5	<0.5	<1.5	--
04/13/07 <sup>6</sup>	196.91	10.71	186.20	1,200	3.4	<5.0	2.1	<20	--
10/22/07	196.91	13.75	183.16	<50	<0.5	<0.5	<0.5	<1.5	--
04/21/08	196.91	9.95	186.96	120	<0.5	<0.5	<0.5	<1.5	--
<b>10/15/08</b>	<b>196.91</b>	<b>14.30</b>	<b>182.61</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.5</b>	<b>--</b>
<b>MW-2</b>									
01/03/01	197.35	12.48	184.87	2,100 <sup>2</sup>	110	11	63	25	83/2.2 <sup>3</sup>
04/25/01	197.35	8.90	188.45	1,700 <sup>4</sup>	150	12	30	15	150/<2.0 <sup>3</sup>
07/09/01	197.35	11.44	185.91	2,500 <sup>5</sup>	200	21	55	26	<50
04/08/02	197.35	13.37	183.98	4,200	87	2.8	29	9.8	<2.5
01/13/02	197.35	6.55	190.80	410	20	2.9	<2.5	4.4	27/<2.0 <sup>3</sup>
04/08/02	197.35	8.37	188.98	4,000	70	1.7	17	17	<2.5
10/15/02	197.35	13.00	184.35	3,100	41	2.2	16	<6.0	--
04/15/03	197.35	7.58	189.77	2,400	37	<2.5	12	<7.5	--
10/31/03	197.35	13.02	184.33	2,300	12	3.4	4.8	<7.5	--
04/23/04	197.35	8.38	188.97	960	8.9	1.0	2.4	<1.5	--
10/22/04	197.35	11.41	185.94	2,200	24	<2.5	4.1	<10	--
04/14/05	197.35	6.69	190.66	640	2.1	<2.0	<2.0	7.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

WELL ID/ DATE	TOC* (ftL)	DTW (ft.)	GWE (msl)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-2 (cont)</b>									
10/14/05	197.35	11.14	186.21	1,200	6.9	<2.5	<2.5	<7.5	--
04/14/06	197.35	6.54	190.81	180	<0.5	<0.5	<0.5	<5.0	--
10/26/06	197.35	11.02	186.33	550	<2.0	0.5	<2.0	<10	--
04/13/07 <sup>6</sup>	197.35	9.95	187.40	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/07	197.35	12.63	184.72	3,200	12	<5.0	4.7	<20	--
04/21/08	197.35	9.31	188.04	860	1.0	<2.0 <sup>7</sup>	<2.0 <sup>7</sup>	<10 <sup>7</sup>	--
<b>10/15/08</b>	<b>197.35</b>	<b>13.71</b>	<b>183.64</b>	<b>480</b>	<b>1.3</b>	<b>0.8</b>	<b>1.1</b>	<b>&lt;5.0<sup>8</sup></b>	--
<b>TRIP BLANK</b>									
<b>TB-LB</b>									
01/03/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/25/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/09/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
<b>QA</b>									
10/08/01	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/08/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
10/15/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--
04/15/03	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/31/03	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/23/04	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/04	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/14/05	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/14/05	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/14/06	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/26/06	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/13/07	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/07	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/21/08	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
<b>10/15/08</b>	--	--	--	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.5</b>	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

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**EXPLANATIONS:**

TOC = Top of Casing  
(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl Tertiary Butyl Ether

(µg/L) = Micrograms per liters

-- = Not Measured/Not Analyzed

QA = Quality Assurance/Trip Blank

\* TOC elevations were surveyed on December 27, 2000, by Virgil Chavez Land Surveying. The benchmark used for the survey was a City of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue, (Benchmark Elev. = 179.075 feet, msl).

<sup>1</sup> Laboratory report indicates unidentified hydrocarbons C6-C12.

<sup>2</sup> Laboratory report indicates gasoline C6-C12.

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

<sup>4</sup> Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.

<sup>5</sup> Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.

<sup>6</sup> Current laboratory analytical results do not coincide with historical data, although the laboratory results were confirmed.

<sup>7</sup> Laboratory report indicates that due to the presence of interferent near their retention time, normal reporting limits were not attained for toluene, ethylbenzene, and total xylenes. The presence or concentration of these compounds cannot be determined below the reporting limits due to the presence of these interferents.

<sup>8</sup> Laboratory report indicates that due to the presence of an interferent near its retention time, the normal reporting limit was not attained for total xylenes. The presence or concentration of this compound cannot be determined due to the presence of this interferent.



**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

WELL ID	DATE	ETHANOL ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
MW-1	01/03/01	<500	<50	<2.0	<2.0	<2.0	<2.0	<2.0
	04/25/01	--	<20	<2.0	<2.0	<2.0	<2.0	--
MW-2	01/03/01	<500	<50	2.2	<2.0	<2.0	<2.0	<2.0
	04/25/01	--	<20	<2.0	<2.0	<2.0	<2.0	--
	01/13/02	--	<20	<2.0	<2.0	<2.0	<2.0	--

**EXPLANATIONS:**

TBA = Tertiary butyl alcohol  
MTBE = Methyl tertiary butyl ether  
DIPE = Di-isopropyl ether  
ETBE = Ethyl tertiary butyl ether  
TAME = Tertiary amyl methyl ether  
1,2-DCA = 1,2-Dichloroethane  
( $\mu\text{g/L}$ ) = Micrograms per liters  
-- = Not Analyzed

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

**Table 3**  
**Groundwater Analytical Results**  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

WELL ID	DATE	FERROUS IRON (mg/L)	TOTAL ALKALINITY (mg/L)	SULFATE AS SO <sub>4</sub> (mg/L)
MW-1	04/25/01	0.15	380	11
	07/09/01	<0.050	410	6.8
	10/08/01	-- <sup>1</sup>	414	5.4
	01/13/02	<0.10 <sup>2</sup>	390	10
MW-2	04/25/01	0.093	680	21
	07/09/01	0.44	600	9.3
	10/08/01	-- <sup>1</sup>	683	3.8
	01/13/02	<0.10 <sup>2</sup>	630	7.0

**EXPLANATIONS:**

(mg/L) = milligrams per liter

-- = Not Analyzed

<sup>1</sup> Analysis was not performed by the Laboratory as requested on the Chain of Custody.

<sup>2</sup> Due to sample transfer by the lab from laboratory to another, the sample was received beyond the EPA recommended holding time.

**ANALYTICAL METHODS:**

EPA Method SM 3500 Fe for Ferrous Iron

EPA Method 310.1 for Total Alkalinity

EPA Method 300.0 for Sulfate as SO<sub>4</sub>

**Table 4**  
**Field Measurements**  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

WELL ID	DATE	D.O. Before Purging (mg/L)	ORP Before Purging (mV)
MW-1	07/09/01	1.25	111
	10/08/01	1.20	64
	01/13/02 <sup>1</sup>	--	--
MW-2	07/09/01	1.89	16
	10/08/01	1.04	58
	01/13/02 <sup>1</sup>	--	--

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**EXPLANATIONS:**

D.O. = Dissolved Oxygen Concentration

(mg/L) = Milligrams per liter

ORP = Oxygen Reduction Potential

(mV) = Millivolt

-- = Not Measured

<sup>1</sup> D.O. and ORP meter erratic; measurements not taken.

**Table 5**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Sheaff's Garage  
 5930 College Avenue  
 Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-1</b>									
04/25/01 <sup>1</sup>	195.90	7.39	188.51	--	--	--	--	--	--
07/09/01	195.90	9.72	186.18	79,000	15,000	7,800	3,000	15,000	660
10/08/01	195.90	10.88	185.02	112,000	25,300	11,800	4,280	20,600	374
01/07/02 <sup>3</sup>	195.90	4.34	191.56	96,100	21,100	13,500	4,160	21,900	596/330 <sup>2</sup>
04/08/02	195.90	6.84	189.06	111,000	21,200	13,400	4,230	21,000	814
10/23/02 <sup>3,4</sup>	195.90	--	--	--	--	--	--	--	--
04/15/03 <sup>5</sup>	195.90	--	--	--	--	--	--	--	--
10/31/03 <sup>5</sup>	195.90	--	--	--	--	--	--	--	--
04/23/04 <sup>4</sup>	195.90	--	--	--	--	--	--	--	--
10/22/04	195.90	10.15	185.75	80,700	13,900	1,670	3,550	15,200	493
04/14/05 <sup>1</sup>	195.90	5.30	190.60	--	--	--	--	--	--
10/14/05 <sup>6</sup>	195.90	9.58	186.32	64,000	13,000	5,700	3,400	16,000	<250
04/14/06 <sup>6</sup>	195.90	3.08	192.82	--	14,000	5,300	3,500	17,000	270
10/26/06 <sup>6</sup>	195.90	9.22	186.68	34,000	12,000	1,600	3,100	8,600	<250
04/13/07	195.90	9.24	186.66	52,000	9,100	2,600	3,100	11,000	150
10/22/07 <sup>5</sup>	195.90	--	--	--	--	--	--	--	--
04/21/08 <sup>4</sup>	195.90	--	--	--	--	--	--	--	--
<b>10/21/08<sup>3</sup></b>	<b>195.90</b>	<b>11.63</b>	<b>184.27</b>	<b>15,000</b>	<b>4,900</b>	<b>430</b>	<b>1,900</b>	<b>2,260</b>	<b>110</b>
<b>MW-2</b>									
04/25/01 <sup>1</sup>	197.28	8.52	188.76	--	--	--	--	--	--
07/09/01	197.28	11.05	186.23	39,000	6,200	730	2,300	6,100	180
10/08/01	197.28	12.79	184.49	40,700	6,310	399	2,100	5,320	6,460
01/07/02 <sup>3</sup>	197.28	4.92	192.36	59,600	10,300	3,250	4,180	14,400	366/170 <sup>2</sup>
04/08/02	197.28	8.40	188.88	66,700	10,200	2,670	3,840	13,200	583
10/23/02 <sup>3,4</sup>	197.28	--	--	--	--	--	--	--	--
04/15/03 <sup>5</sup>	197.28	--	--	--	--	--	--	--	--
10/31/03 <sup>5</sup>	197.28	--	--	--	--	--	--	--	--
04/23/04 <sup>4</sup>	197.28	--	--	--	--	--	--	--	--
10/22/04	197.28	10.25	187.03	13,500	1,790	54	892	915	273
04/14/05 <sup>1</sup>	197.28	8.70	188.58	--	--	--	--	--	--
10/14/05 <sup>6</sup>	197.28	10.92	186.36	13,000	2,900	100	1,300	1,200	130
04/14/06 <sup>6</sup>	197.28	3.61	193.67	--	4,000	740	2,300	5,100	<100

**Table 5**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Sheaff's Garage  
 5930 College Avenue  
 Oakland, California

WELL ID/ DATE	TOC <sup>+</sup> (ft.)	DTW (ft.)	GWE (msl)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-2 (cont)</b>									
10/26/06 <sup>6</sup>	197.28	10.58	186.70	8,200	1,400	51	840	500	68
04/13/07	197.28	10.54	186.74	19,000	2,000	85	1,300	1,100	57
10/22/07 <sup>5</sup>	197.28	--	--	--	--	--	--	--	--
04/21/08 <sup>4</sup>	197.28	--	--	--	--	--	--	--	--
<b>10/21/08<sup>3</sup></b>	<b>197.28</b>	<b>13.11</b>	<b>184.17</b>	<b>4,900</b>	<b>700</b>	<b>20</b>	<b>370</b>	<b>52</b>	<b>65</b>
<b>MW-3</b>									
04/25/01 <sup>1</sup>	195.22	6.61	188.61	--	--	--	--	--	--
07/09/01	195.22	8.85	186.37	12,000	39	10	690	1,600	35
10/08/01	195.22	9.75	185.47	4,912.5	107.7	3.9	99.0	132.5	52.2
01/07/02 <sup>3</sup>	195.22	4.25	190.97	7,260	723	138	492	887	81.7/16.7 <sup>2</sup>
04/08/02	195.22	6.33	188.89	11,700	540	108	706	1,710	<0.5
10/23/02 <sup>3,4</sup>	195.22	--	--	--	--	--	--	--	--
04/15/03 <sup>5</sup>	195.22	--	--	--	--	--	--	--	--
10/31/03 <sup>5</sup>	195.22	--	--	--	--	--	--	--	--
04/23/04 <sup>4</sup>	195.22	--	--	--	--	--	--	--	--
10/22/04	195.22	9.25	185.97	7,420	152	12.8	267	480	96
04/14/05 <sup>1</sup>	195.22	5.10	190.12	--	--	--	--	--	--
10/14/05 <sup>6</sup>	195.22	8.83	186.39	6,100	76	19	170	350	<20
04/14/06 <sup>6</sup>	195.22	3.41	191.81	--	760	44	230	190	69
10/26/06 <sup>6</sup>	195.22	8.57	186.65	3,100	120	9.8	55	54	17
04/13/07	195.22	8.57	186.65	2,800	55	4.9	19	6.1	<5
10/22/07 <sup>5</sup>	195.22	--	--	--	--	--	--	--	--
04/21/08 <sup>4</sup>	195.22	--	--	--	--	--	--	--	--
<b>10/21/08<sup>3</sup></b>	<b>195.22</b>	<b>11.12</b>	<b>184.10</b>	<b>2,900</b>	<b>170</b>	<b>9.2</b>	<b>99</b>	<b>25.8</b>	<b>2.2</b>
<b>PW-1</b>									
04/14/05 <sup>1</sup>	--	6.40	--	--	--	--	--	--	--
10/14/05 <sup>6</sup>	--	10.71	--	4,300	93	1.2	100	140	<2.0
04/14/06 <sup>6</sup>	--	2.27	--	--	2.3	<1.0	3.5	9.3	<2.0
10/26/06 <sup>6</sup>	--	10.30	--	2,800	61	<10	130	34	<10

**Table 5**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Sheaff's Garage  
 5930 College Avenue  
 Oakland, California

<b>WELL ID/ DATE</b>	<b>TOC* (ft.)</b>	<b>DTW (ft.)</b>	<b>GWE (msl)</b>	<b>TPH-G (µg/L)</b>	<b>B (µg/L)</b>	<b>T (µg/L)</b>	<b>E (µg/L)</b>	<b>X (µg/L)</b>	<b>MTBE (µg/L)</b>
<b>PW-1 (cont)</b>									
04/13/07	197.17	10.31	186.86	510	6	<0.5	30	56	<1
10/22/07 <sup>5</sup>	197.17	--	--	--	--	--	--	--	--
04/21/08 <sup>4</sup>	197.17	--	--	--	--	--	--	--	--
<b>10/21/08<sup>3</sup></b>	<b>197.17</b>	<b>12.90</b>	<b>184.27</b>	<b>1,500</b>	<b>20</b>	<b>&lt;0.5</b>	<b>57</b>	<b>20</b>	<b>1</b>

**Table 5**  
**Joint Groundwater Monitoring Data and Analytical Results**  
Sheaff's Garage  
5930 College Avenue  
Oakland, California

---

**EXPLANATIONS:**

Joint groundwater monitoring data and laboratory analytical results were provided by Golden Gate Tank Removal, Inc.

TOC = Top of Casing

(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(µg/L) = Micrograms per liters

-- = Not Measured/Not Analyzed

\* TOC elevations were surveyed on April 26, 2001, by Virgil Chavez Land Surveying. The benchmark for the survey was a City of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue, (Benchmark Elevation = 179.075 feet, msl).

<sup>1</sup> Joint monitoring laboratory analytical results were not provided.

<sup>2</sup> MTBE by EPA Method 8260

<sup>3</sup> Joint monitoring was conducted on different day than Chevron.

<sup>4</sup> Joint monitoring data was not provided.

<sup>5</sup> Joint monitoring and sampling was scheduled but not conducted.

<sup>6</sup> BTEX and MTBE by EPA Method 8260.



## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

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

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

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

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

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209339 Job Number: 386521  
 Site Address: 5940 College Avenue Event Date: 10-15-08 (inclusive)  
 City: Oakland, CA Sampler: Joe

Well ID: MW-1  
 Well Diameter: 2 in.  
 Total Depth: 20.15 ft.  
 Depth to Water: 14.30 ft.  
5.85 xVF 0.17 = 0.20

Date Monitored: 10-15-08

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.

x3 case volume = Estimated Purge Volume: 3 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.47

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

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

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

Start Time (purge): 0645 Weather Conditions: clear  
 Sample Time/Date: 0730 / 10-15-08 Water Color: clear Odor: Y1 (N)  
 Approx. Flow Rate: — gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 14.63

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (S))	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>0650</u>	<u>1</u>	<u>6.72</u>	<u>1014</u>	<u>18.2</u>	_____	_____
<u>0654</u>	<u>2</u>	<u>6.65</u>	<u>7986</u>	<u>18.7</u>	_____	_____
<u>0659</u>	<u>3</u>	<u>6.67</u>	<u>981</u>	<u>18.1</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX(8021)</u>

COMMENTS: Very slow recovery

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209339 Job Number: 386521  
 Site Address: 5940 College Avenue Event Date: 10-15-08 (inclusive)  
 City: Oakland, CA Sampler: See

Well ID: MW-2 Date Monitored: 10-15-08  
 Well Diameter: 2 in.  
 Total Depth: 20.09 ft.  
 Depth to Water: 13.71 ft.

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

Check if water column is less than 0.50 ft.  
 $6.38 \times VF = 0.17 = 1.08$  x3 case volume = Estimated Purge Volume: 3.5 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.98

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

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

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

Start Time (purge): 0745 Weather Conditions: clear  
 Sample Time/Date: 0839/10-15-08 Water Color: clear Odor: Y1(N)  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 14.16

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0752</u>	<u>1</u>	<u>6.52</u>	<u>781</u>	<u>18.9</u>		
<u>0757</u>	<u>2</u>	<u>6.56</u>	<u>784</u>	<u>18.4</u>		
<u>0803</u>	<u>3.5</u>	<u>6.57</u>	<u>783</u>	<u>18.6</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX(8021)</u>

COMMENTS: very slow recovery today

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

# Chevron California Region Analysis Request/Chain of Custody



161798-06

For Lancaster Laboratories use only  
 Acct #: 10904 Sample # 5502301-03 Group #: 004308

G# 1115756

Facility #: SS#209339 QMD G-R#386521 Global ID#T06019752694 Site Address: 5940 COLLEGE AVENUE, OAKLAND, CA Chevron PM: IR Lead Consultant: CRACE 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 <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analyses Requested Preservation Codes H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits												
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX	TPH 8015 MOD GRO	TPH 8015 MOD DRO	8260 full scan	Oxygenates	Total Lead	Method	Dissolved Lead	Method
QA			✓			✓			2	✓	✓							
MW-1	10-15-08	0730	✓			✓			3	✓	✓							
MW-2	11	0835	✓			✓			3	✓	✓							
Turnaround Time Requested (TAT) (please circle) STD. TAT 24 hour 4 day 5 day 72 hour 48 hour										Relinquished by: [Signature] Date: 10-16-08 Time: 0750		Received by: [Signature] Date: 10-17-08 Time: 1130						
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) <input type="checkbox"/> Cost Deliverable not needed WIP (RWQCB) <input type="checkbox"/> EDF/EDD Disk										Relinquished by: [Signature] Date: 17 OCT 08 Time: 1630		Received by: [Signature] Date: 17 OCT 08 Time: 1700						
Relinquished by Commercial Carrier: UPS FedEx Other [Signature]										Relinquished by: [Signature] Date: 17 OCT 08 Time: 1630		Received by: [Signature] Date: 17 OCT 08 Time: 1700						
Temperature Upon Receipt: 67.3-3.3 C°										Custody Seals Intact? Yes No								



# Analysis Report

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

## ANALYTICAL RESULTS

Prepared for:

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

925-842-8582

Prepared by:

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

RECEIVED

OCT 27 2008

GETTLER-RYAN INC.  
GENERAL CONTRACTORS

## SAMPLE GROUP

The sample group for this submittal is 1115756. Samples arrived at the laboratory on Saturday, October 18, 2008. The PO# for this group is 0015024486 and the release number is ROBB.

### Client Description

QA-T-081015 NA Water  
MW-1-W-081015 Grab Water  
MW-2-W-081015 Grab Water

### Lancaster Labs Number

5502301  
5502302  
5502303

ELECTRONIC      CRA c/o Gettler-Ryan  
COPY TO

Attn: Cheryl Hansen

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

Respectfully Submitted,

Barbara F. Reedy  
Senior Specialist

Lancaster Laboratories Sample No. WW5502301

Group No. 1115756

QA-T-081015 NA Water  
 Facility# 209339 Job# 386521 GRD  
 5940 College Ave-Oakland T06019752694 QA  
 Collected:10/15/2008

Account Number: 10904

Submitted: 10/18/2008 09:40  
 Reported: 10/24/2008 at 14:50  
 Discard: 11/24/2008

Chevron  
 6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	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		
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	10/23/2008 20:29	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1	10/23/2008 20:29	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/23/2008 20:29	Martha L Seidel	1

Lancaster Laboratories Sample No. **WW5502302**

Group No. **1115756**

MW-1-W-081015 Grab Water

Facility# 209339 Job# 386521 GRD

5940 College Ave-Oakland T06019752694 MW-1

Collected:10/15/2008 07:30 by JA

Account Number: 10904

Submitted: 10/18/2008 09:40

Reported: 10/24/2008 at 14:50

Discard: 11/24/2008

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received	Units	Dilution Factor
				Method		
				Detection Limit		
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	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		
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	10/23/2008 21:40	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1	10/23/2008 21:40	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/23/2008 21:40	Martha L Seidel	1





# Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. **WW5502303**

Group No. **1115756**

MW-2-W-081015 Grab Water

Facility# 209339 Job# 386521 GRD

5940 College Ave-Oakland T06019752694 MW-2

Collected: 10/15/2008 08:35 by JA

Account Number: 10904

Submitted: 10/18/2008 09:40

Reported: 10/24/2008 at 14:50

Discard: 11/24/2008

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	480	50	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	1.3	0.5	ug/l	1
02164	Toluene	108-88-3	0.8	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	1.1	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	5.0	ug/l	1

Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for the compound listed below. The presence or concentration of this compound cannot be determined due to the presence of this interferent.  
total xylenes

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		
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	10/23/2008 22:03	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1	10/23/2008 22:03	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/23/2008 22:03	Martha L Seidel	1

## Quality Control Summary

 Client Name: Chevron  
 Reported: 10/24/08 at 02:50 PM

Group Number: 1115756

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: 08297A53A	Sample number(s): 5502301-5502303							
TPH-GRO - Waters	N.D.	50.	ug/l	106	110	75-135	4	30
Benzene	N.D.	0.5	ug/l	111	114	86-119	2	30
Toluene	N.D.	0.5	ug/l	111	113	82-119	2	30
Ethylbenzene	N.D.	0.5	ug/l	106	110	81-119	3	30
Total Xylenes	N.D.	1.5	ug/l	109	113	82-120	3	30

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 08297A53A	Sample number(s): 5502301-5502303 UNSPK: 5502302, 5502303								
TPH-GRO - Waters	112		63-154						
Benzene	119		78-131						
Toluene	119		78-129						
Ethylbenzene	116		75-133						
Total Xylenes	119		84-131						

### Surrogate Quality Control

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

 Analysis Name: TPH-GRO - Waters  
 Batch number: 08297A53A

	Trifluorotoluene-F	Trifluorotoluene-P
5502301	82	85
5502302	79	87
5502303	91	78
Blank	85	88
LCS	102	88
LCSD	94	88
MS	109	89
Limits:	63-135	69-129

#### \*- Outside of specification

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

## Quality Control Summary

Client Name: Chevron  
Reported: 10/24/08 at 02:50 PM

Group Number: 1115756

\*- 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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