

DH STMP 1042



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U.S.A.  
916/638-2085  
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NOV 16 PM 4:09  
ENVIRONMENTAL  
PROTECTION

November 14, 2000

Mr. Thomas Peacock  
Alameda County Health Care Service,  
Department of Environmental health  
1153 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: *Second and Third Quarter Event of April 10 and July 12, 2000,  
Groundwater Monitoring and Sampling Report*  
Chevron Service Station No. 9-8341  
3530 MacArthur Boulevard  
Oakland, California  
Delta Project No. DG98-341

Dear Mr. Peacock:

Attached for your review and comment are two letter reports entitled *Second Quarter of April 10, 2000 Groundwater Monitoring and Sampling Report and Third Quarter Event of July 12, 2000, Groundwater Monitoring and Sampling Report* for the above referenced site. These reports were prepared by Delta Environmental Consultants, Inc. / Gettler-Ryan, Inc and details the results of the July 2000 ground water monitoring and sampling event.

During the fourth quarter 2000 and first quarter 2001, Delta plans to evaluate the existing data for this site and implement additional site assessment activities. The downgradient extent of MTBE and potential sensitive receptors will be addressed.

If you have questions or comments regarding this report, please contact me at (916) 638-2765.

Sincerely,

**DELTA ENVIRONMENTAL CONSULTANTS, INC.**

Jim Brownell, R.G.  
Portfolio Manager

JRB (3rd Qrt 2000 QM-9-8341.doc)  
Enclosures

cc: Tom Bauhs – Chevron Product Company

OK  
EJK  
10/6/00



# GETTLER - RYAN INC.

June 12, 2000  
G-R Job #386346

Mr. Tom Bauhs  
Chevron Products Company  
P.O. Box 6004  
San Ramon, CA 94583

**RE: Second Quarter Event of April 10, 2000**  
Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

Dear Mr. Bauhs:

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.

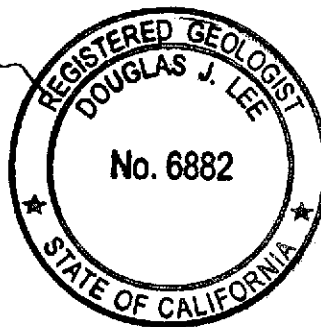
Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are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

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

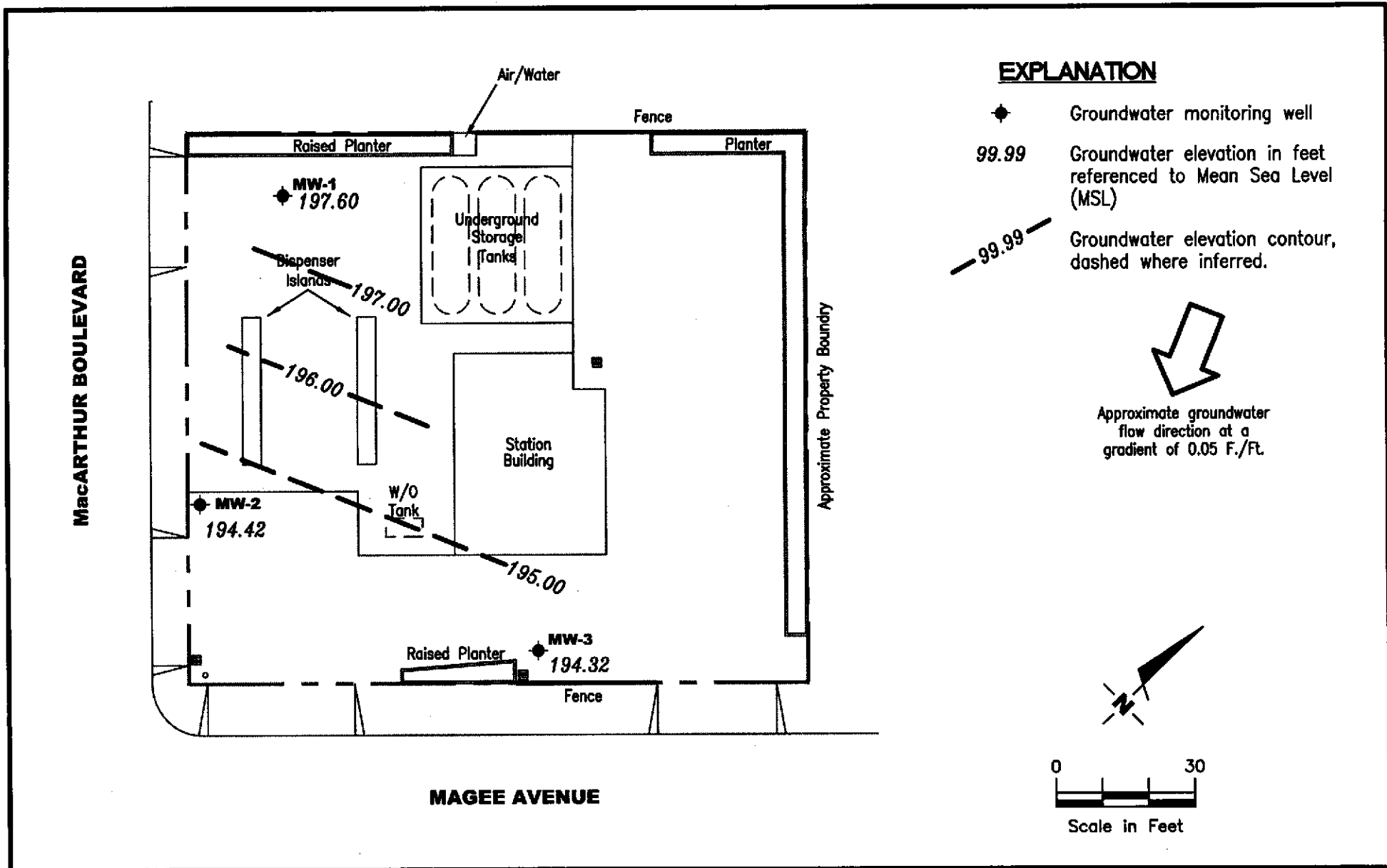
Sincerely,

Deanna L. Harding  
Project Coordinator

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



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



**Gettler - Ryan Inc.**

6747 Sierra Ct., Suite J  
Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

FIGURE

1

JOB NUMBER  
386346

REVIEWED BY

DATE  
April 10, 2000

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
<b>MW-1</b>										
04/04/96	202.47	198.65	3.82	--	<50	<0.5	<0.5	<0.5	<0.5	ND
11/01/96	202.47	197.45	5.02	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/06/97	202.47	199.72	2.75	--	<50	<0.5	<0.5	<0.5	<0.5	14
04/14/97	202.47	197.71	4.76	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/17/97	202.47	196.72	5.75	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/29/97	202.47	196.97	5.50	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/04/98	202.47	199.80	2.67	--	<50	4.2	<0.5	<0.5	<0.5	94
04/03/98	202.47	197.06	5.41	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/29/98	202.47	192.26	10.21	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/26/98	202.47	195.66	6.81	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/18/99	202.47	196.05	6.42	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
04/15/99	202.47	197.13	5.34	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
07/22/99	202.47	196.97	5.50	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/13/99	202.47	196.43	6.04	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/21/00	202.47	197.11	5.36	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/10/00	202.47	197.60	4.87	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
<b>MW-2</b>										
04/04/96	198.88	196.07	2.81	--	<50	<0.5	<0.5	<0.5	<0.5	6,100
11/01/96	198.88	195.27	3.61	--	<500	<5.0	<5.0	<5.0	<5.0	2,600
01/06/97	198.88	195.97	2.91	--	<2,000	31	<20	<20	<20	4,000
04/14/97	198.88	195.43	3.45	--	<2,000	<20	<20	<20	<20	5,100/5,800 <sup>1</sup>
07/17/97	198.88	194.98	3.90	--	<500	<5.0	<5.0	<5.0	<5.0	2,300/2,900 <sup>1</sup>
10/29/97	198.88	192.96	5.92	--	120 <sup>2</sup>	12	<0.5	<0.5	<0.5	810/900 <sup>1</sup>
02/04/98	198.88	195.05	3.83	--	<1,000	<10	<10	<10	<10	2,100/2,800 <sup>1</sup>
04/03/98	198.88	191.55	7.33	--	<1,000	<10	<10	<10	<10	3,800/3,600 <sup>1</sup>
07/29/98	198.88	189.86	9.02	--	120 <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	2,800/3,900 <sup>1</sup>
10/26/98	198.88	192.77	6.11	--	<50	<0.5	<0.5	<0.5	<0.5	1,200
01/18/99	198.88	194.67	4.21	--	<1,000	<10	<10	<10	10.5	2,530

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
<b>MW-2 (cont)</b>										
04/15/99	198.88	194.56	4.32	--	<50	<0.5	<0.5	<0.5	<0.5	5,270
07/22/99	198.88	193.73	5.15	--	<50	8.92	<0.5	<0.5	<0.5	1,450
10/13/99	198.88	192.23	6.65	--	<250	<2.5	<2.5	<2.5	<2.5	1,740
01/21/00	198.88	192.78	6.10	--	69.6	<0.5	<0.5	<0.5	<0.5	1,110
✓ 04/10/00	<b>198.88</b>	<b>194.42</b>	<b>4.46</b>	--	<b>&lt;500</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>1,700</b>
<b>MW-3</b>										
04/04/96	199.10	195.22	3.88	--	<50	<0.5	<0.5	<0.5	<0.5	ND
11/01/96	199.10	194.91	4.19	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/06/97	199.10	195.29	3.81	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/14/97	199.10	194.93	4.17	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/17/97	199.10	194.92	4.18	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/29/97	199.10	193.90	5.20	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/04/98	199.10	194.71	4.39	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/03/98	199.10	195.78	3.32	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/29/98	199.10	189.24	9.86	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/26/98	199.10	193.59	5.51	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/18/99	199.10	194.68	4.42	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
04/15/99	199.10	194.54	4.56	--	<50	<0.5	<0.5	<0.5	1.16	<5.0
07/22/99	199.10	192.45	6.65	--	<50	<0.5	<0.5	<0.5	<0.5	3.94
10/13/99	199.10	193.79	5.31	--	<50	<0.5	<0.5	<0.5	<0.5	6.55
01/21/00	199.10	193.18	5.92	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
✓ 04/10/00	<b>199.10</b>	<b>194.32</b>	<b>4.78</b>	--	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;2.5</b>

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylenes	MTBE
<b>TRIP BLANK</b>										
11/01/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/06/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/14/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/17/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/29/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/04/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/03/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/29/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/26/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/18/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
04/15/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
07/22/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/13/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/21/00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/10/00	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

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**EXPLANATIONS:**

Groundwater monitoring data and analytical results prior to April 10, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl Tertiary Butyl Ether

ND = Not Detected

-- = Not Measured/Not Analyzed

- <sup>1</sup> Confirmation run.
- <sup>2</sup> Chromatogram report indicates an unidentified hydrocarbon and gas.
- <sup>3</sup> Chromatogram report indicates an unidentified hydrocarbon.

## 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, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride 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 Chevron-designated 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 Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.



## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility# Chevron 9-8341 Job#: 386346  
 Address: 3530 MacArthur Blvd. Date: 4-10-00  
 City: Oakland, CA. Sampler: Brian

Well ID: MW-1 Well Condition: OK  
 Well Diameter: 2" in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (Gallons): 0  
 Total Depth: 29.96 ft. Volume Factor (VF):  
 Depth to Water: 4.87 ft. 2" = 0.17      3" = 0.38      4" = 0.66  
6" = 1.50      12" = 5.80

25.09 x VF .17 = 4.27 x 3 (case volume) = Estimated Purge Volume: 12.81 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: \_\_\_\_\_  
 Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: \_\_\_\_\_

Starting Time: 9:40 Weather Conditions: OK Sunny  
 Sampling Time: 9:55 Water Color: Brown Odor: NO  
 Purging Flow Rate: 3 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
9:43	9	6.93	704	68.1			
9:45	9	7.03	682	67.8			
9:48	12	6.98	658	66.2			

### LABORATORY INFORMATION

SAMPLE ID	# - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES
				SEQUOIA		TPH(G)/btex/mtbe
MW-1	3x VOAVIAL	Y	HCL			

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/Facility # Chevron 9-8341 Job#: 386346  
 Address: 3530 MacArthur Blvd. Date: 4-18-00  
 City: Oakland, CA. Sampler: Brian

Well ID MW-2 Well Condition: OK  
 Well Diameter 2" in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)  
 Total Depth 33.45 ft.  
 Depth to Water 4.46 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

$28.79 \times VF_{17} = 4.93 \times 3 \text{ (case volume)} = \text{Estimated Purge Volume: } 14.79 \text{ (gal.)}$

Purge Equipment: Disposable Bailer Bailer Stack Suction Grundfos Other: \_\_\_\_\_  
 Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: \_\_\_\_\_

Starting Time: 10:29 Weather Conditions: Sunny  
 Sampling Time: 10:55 Water Color: BRN Odor: NO  
 Purging Flow Rate: 3 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:34</u>	<u>6</u>	<u>7.28</u>	<u>738</u>	<u>68.9</u>			
<u>10:40</u>	<u>10</u>	<u>7.10</u>	<u>726</u>	<u>71.0</u>			
<u>10:45</u>	<u>14</u>	<u>7.12</u>	<u>758</u>	<u>68.8</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#)-CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES	
					SEQUOIA	TPH(G)/btex/mtbe
<u>MW-2</u>	<u>3 x VOAVIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>		

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

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility# Chevron 9-8341 Job#: 386346  
 Address: 3530 MacArthur Blvd. Date: 4-10-00  
 City: Oakland, CA. Sampler: Bison

Well ID MW-3 Well Condition: OK  
 Well Diameter 2" in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)  
 Total Depth 33.00 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66  
 Depth to Water 4.78 ft. Factor (VF) 6" = 1.50 12" = 5.80

$28.22 \times VF .17 = 4.78 \times 3 \text{ (case volume)} = \text{Estimated Purge Volume: } 14.4 \text{ (gal.)}$

Purge Equipment: Disposable Bailer Bailer Stack Suction Grundfos Other: \_\_\_\_\_  
 Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: \_\_\_\_\_

Starting Time: 10:05 Weather Conditions: Sunny  
 Sampling Time: 10:25 Water Color: REN Odor: NO  
 Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:10</u>	<u>6</u>	<u>7.12</u>	<u>676</u>	<u>69.7</u>	_____	_____	_____
<u>10:15</u>	<u>10</u>	<u>7.07</u>	<u>633</u>	<u>65.5</u>	_____	_____	_____
<u>10:20</u>	<u>19</u>	<u>7.15</u>	<u>598</u>	<u>66.0</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3 X VOAVIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btax/mtbe</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

Chevron Products Co.  
P.O. BOX 6004  
San Ramon, CA 94583  
FAX (925)842-8370

Chevron Facility Number #9-8341  
Facility Address 3530 MACARTHUR BLVD., OAKLAND, CA.  
Consultant Project Number 386346  
Consultant Name GETTLER-RYAN INC.  
Address 6747 SIERRA COURT, SUITE J, DUBLIN, CA 94568  
Project Contact (Name) DEANNA L. HARDING  
(Phone) 925-551-7555 (Fax Number) 925-551-7899

Chevron Contact (Name) MR. TOM BAUHS  
(Phone) (925) 842-8898  
Laboratory Name SEQUOIA  
Laboratory Service Order W004210  
Laboratory Service Code  
Samples Collected by (Name) Brian Gor  
Signature Brian Gor

State Method:  CA  OR  WA  NW Series  CO  UT IDAHO

Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Sample Preservation	Date/Time	State Method: <input checked="" type="checkbox"/> CA <input type="checkbox"/> OR <input type="checkbox"/> WA <input type="checkbox"/> NW Series <input type="checkbox"/> CO <input type="checkbox"/> UT IDAHO											Lab Sample No.	Remarks	
					BTEX/MTBE+TPH GAS (8020 + 8015)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oxygenates (8280)	Purgeable Halocarbons (8010)	Purgeable Organics (8260)	Extractable Organics (8270)	Oil and Grease (8520)	Metals (ICAP or AA) Cd,Cr,Pb,Zn,Ni	BTEX (8020)	BTEX/MTBE/Naph. (8020)			TPH - HClD
TBLB	1	W	HCL	9:55	✓				OIA									
MW-1	3	W	"	4/10/00 10:55	✓				OZA-C									
MW-2	3	W	"	4/10/00 10:25	✓				O3									
MW-3	3	W	"	4/10/00 10:35	✓				O9									

Relinquished By (Signature) <i>Brian Gor</i>	Organization G-R INC.	Date/Time (SD) 4-10-00	Received By (Signature) <i>John Wehe</i>	Organization G-R INC.	Date/Time (SD) 4-10-00	Iced Y/N
Relinquished By (Signature) <i>John Wehe</i>	Organization G-R INC.	Date/Time (SD) 4-10-00	Received By (Signature) <i>Will H</i>	Organization Seqon	Date/Time 4-10-00 16:35	Iced Y/N
Relinquished By (Signature)	Organization	Date/Time 17:25	Received For Laboratory By (Signature) <i>Will H</i>	Organization G-R INC.	Date/Time 4/10/00	Iced Y/N

Turn Around Time (Circle Choice)

- 24 Hrs.
- 48 Hrs.
- 5 Days
- 10 Days
- As Contracted**



# Sequoia Analytical

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404 N. Wiget Lane  
Walnut Creek, CA 94598  
(925) 988-9600  
FAX (925) 988-9673  
[www.sequoialabs.com](http://www.sequoialabs.com)

25 April, 2000

Deanna L. Harding  
Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin, CA 94568

RE: Chevron  
Sequoia Report: W004210

Enclosed are the results of analyses for samples received by the laboratory on 10-Apr-00 17:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater  
Project Manager

CA ELAP Certificate #1271





Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron # 9-8341  
Project Manager: Deanna L. Harding

Reported:  
25-Apr-00 17:29

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W004210-01	Water	10-Apr-00 09:55	10-Apr-00 17:25
MW-1	W004210-02	Water	10-Apr-00 10:55	10-Apr-00 17:25
MW-2	W004210-03	Water	10-Apr-00 10:25	10-Apr-00 17:25
MW-3	W004210-04	Water	10-Apr-00 10:25	10-Apr-00 17:25





Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron # 9-8341  
Project Manager: Deanna L. Harding

Reported:  
25-Apr-00 17:29

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TB-LB (W004210-01) Water</b> Sampled: 10-Apr-00 09:55 Received: 10-Apr-00 17:25									
Purgeable Hydrocarbons	ND	50	ug/l	1	0D18003	18-Apr-00	18-Apr-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.0 %	70-130		"	"	"	"	
<b>MW-1 (W004210-02) Water</b> Sampled: 10-Apr-00 10:55 Received: 10-Apr-00 17:25									
Purgeable Hydrocarbons	ND	50	ug/l	1	0D18003	18-Apr-00	18-Apr-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.7 %	70-130		"	"	"	"	
<b>MW-2 (W004210-03) Water</b> Sampled: 10-Apr-00 10:25 Received: 10-Apr-00 17:25									
Purgeable Hydrocarbons	ND	500	ug/l	10	0D20001	20-Apr-00	20-Apr-00	EPA 8015M/8020	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	1700	25	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		103 %	70-130		"	"	"	"	





Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron # 9-8341  
Project Manager: Deanna L. Harding

**Reported:**  
25-Apr-00 17:29

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT**  
**Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (W004210-04) Water</b> <b>Sampled: 10-Apr-00 10:25</b> <b>Received: 10-Apr-00 17:25</b>									
Purgeable Hydrocarbons	ND	50	ug/l	1	0D20001	20-Apr-00	20-Apr-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>101 %</i>		<i>70-130</i>					







Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron # 9-8341  
Project Manager: Deanna L. Harding

Reported:  
25-Apr-00 17:29

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Notes
<b>Batch 0D18003 - EPA 5030B [P/T]</b>									
<b>Blank (0D18003-BLK1)</b>					Prepared & Analyzed: 18-Apr-00				
Purgeable Hydrocarbons	ND	50	ug/l						
Benzene	ND	0.50	"						
Toluene	ND	0.50	"						
Ethylbenzene	ND	0.50	"						
Xylenes (total)	ND	0.50	"						
Methyl tert-butyl ether	ND	2.5	"						
<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.9		"	30.0		99.7	70-130		
<b>LCS (0D18003-BS1)</b>					Prepared & Analyzed: 18-Apr-00				
Benzene	21.6	0.50	ug/l	20.0		108	70-130		
Toluene	21.6	0.50	"	20.0		108	70-130		
Ethylbenzene	21.4	0.50	"	20.0		107	70-130		
Xylenes (total)	61.9	0.50	"	60.0		103	70-130		
<i>Surrogate: a,a,a-Trifluorotoluene</i>	28.4		"	30.0		94.7	70-130		
<b>Matrix Spike (0D18003-MS1)</b>					Source: W004209-11		Prepared & Analyzed: 18-Apr-00		
Benzene	19.1	0.50	ug/l	20.0	ND	95.5	70-130		
Toluene	19.3	0.50	"	20.0	ND	96.5	70-130		
Ethylbenzene	19.3	0.50	"	20.0	ND	96.5	70-130		
Xylenes (total)	56.6	0.50	"	60.0	ND	94.3	70-130		
<i>Surrogate: a,a,a-Trifluorotoluene</i>	28.0		"	30.0		93.3	70-130		
<b>Matrix Spike Dup (0D18003-MSD1)</b>					Source: W004209-11		Prepared & Analyzed: 18-Apr-00		
Benzene	21.3	0.50	ug/l	20.0	ND	106	70-130	10.9	20
Toluene	21.6	0.50	"	20.0	ND	108	70-130	11.2	20
Ethylbenzene	21.7	0.50	"	20.0	ND	109	70-130	11.7	20
Xylenes (total)	62.9	0.50	"	60.0	ND	105	70-130	10.5	20
<i>Surrogate: a,a,a-Trifluorotoluene</i>	28.1		"	30.0		93.7	70-130		





Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron # 9-8341  
Project Manager: Deanna L. Harding

Reported:  
25-Apr-00 17:29

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control**  
**Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0D20001 - EPA 5030B [P/T]</b>										
<b>Blank (0D20001-BLK1)</b> Prepared & Analyzed: 20-Apr-00										
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	28.1		"	30.0		93.7	70-130			
<b>LCS (0D20001-BS1)</b> Prepared & Analyzed: 20-Apr-00										
Benzene	18.6	0.50	ug/l	20.0		93.0	70-130			
Toluene	19.3	0.50	"	20.0		96.5	70-130			
Ethylbenzene	18.8	0.50	"	20.0		94.0	70-130			
Xylenes (total)	62.9	0.50	"	60.0		105	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	26.9		"	30.0		89.7	70-130			
<b>Matrix Spike (0D20001-MS1)</b> Source: W004230-06 Prepared & Analyzed: 20-Apr-00										
Benzene	16.8	0.50	ug/l	20.0	ND	84.0	70-130			
Toluene	17.6	0.50	"	20.0	ND	88.0	70-130			
Ethylbenzene	16.4	0.50	"	20.0	ND	82.0	70-130			
Xylenes (total)	56.9	0.50	"	60.0	ND	94.8	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	25.2		"	30.0		84.0	70-130			
<b>Matrix Spike Dup (0D20001-MSD1)</b> Source: W004230-06 Prepared & Analyzed: 20-Apr-00										
Benzene	17.7	0.50	ug/l	20.0	ND	88.5	70-130	5.22	20	
Toluene	18.6	0.50	"	20.0	ND	93.0	70-130	5.52	20	
Ethylbenzene	19.1	0.50	"	20.0	ND	95.5	70-130	15.2	20	
Xylenes (total)	60.7	0.50	"	60.0	ND	101	70-130	6.46	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	26.4		"	30.0		88.0	70-130			





Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron # 9-8341  
Project Manager: Deanna L. Harding

Reported:  
25-Apr-00 17:29

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference





# GETTLER - RYAN INC.

October 18, 2000  
G-R Job #386346

Mr. Thomas Bauhs  
Chevron Products Company  
P.O. Box 6004  
San Ramon, CA 94583

**RE: Third Quarter Event of July 12, 2000**  
Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

Dear Mr. Bauhs:

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.

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

Sincerely,

Deanna L. Harding  
Project Coordinator

Hagop Kevork  
P.E. No. C55734

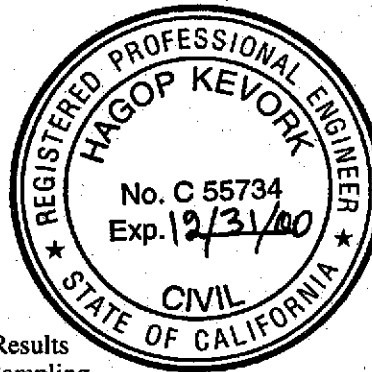
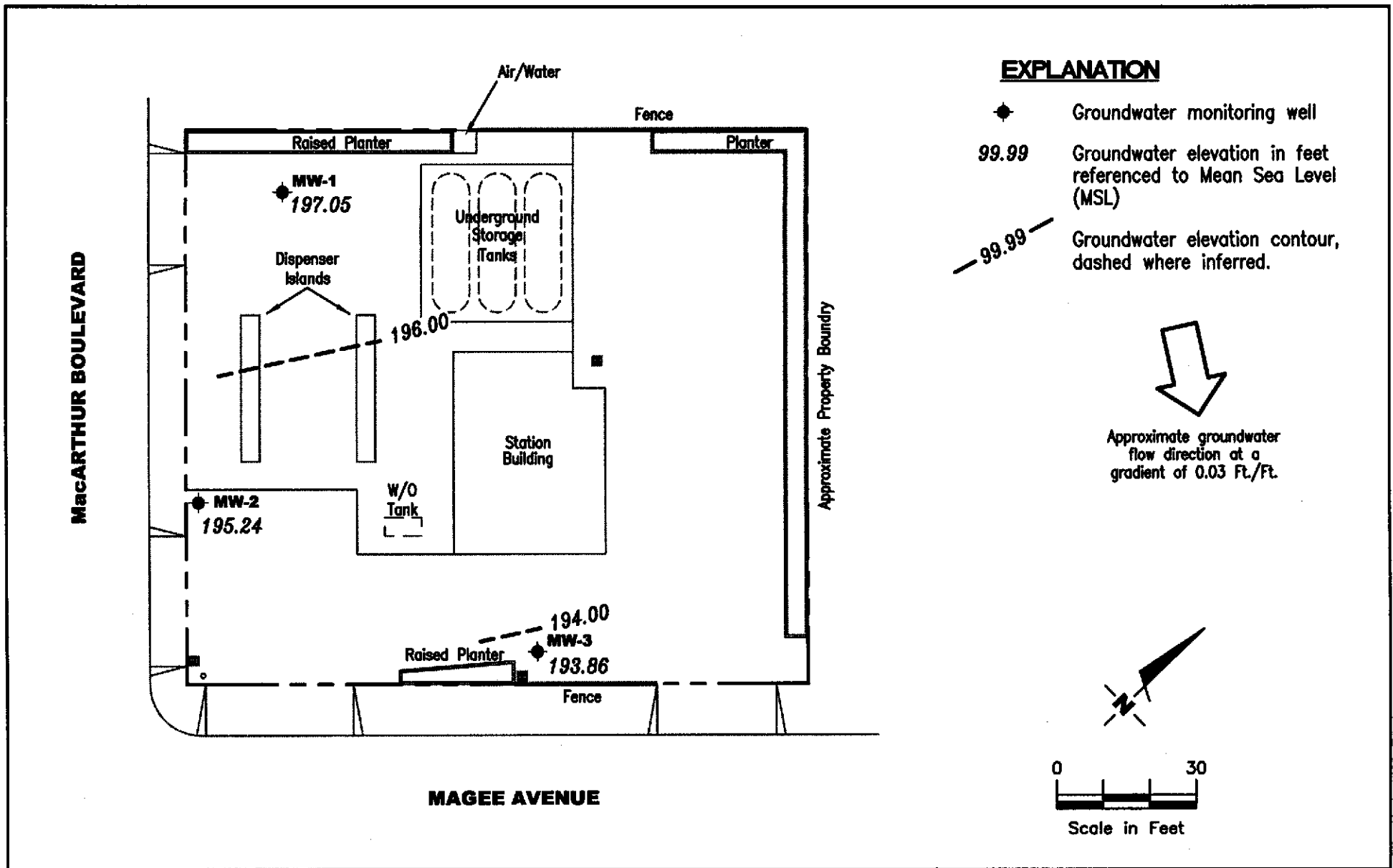


Figure 1: Potentiometric Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports



**Gettler - Ryan Inc.**

6747 Sierra Ct., Suite J  
 Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP  
 Chevron Service Station #9-8341  
 3530 MacArthur Boulevard  
 Oakland, California

FIGURE

1

JOB NUMBER  
 386346

REVIEWED BY

DATE  
 July 12, 2000

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
<b>MW-1</b>									
04/04/96	202.47	198.65	3.82	<50	<0.5	<0.5	<0.5	<0.5	ND
11/01/96	202.47	197.45	5.02	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/06/97	202.47	199.72	2.75	<50	<0.5	<0.5	<0.5	<0.5	14
04/14/97	202.47	197.71	4.76	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/17/97	202.47	196.72	5.75	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/29/97	202.47	196.97	5.50	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/04/98	202.47	199.80	2.67	<50	4.2	<0.5	<0.5	<0.5	94
04/03/98	202.47	197.06	5.41	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/29/98	202.47	192.26	10.21	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/26/98	202.47	195.66	6.81	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/18/99	202.47	196.05	6.42	<50	<0.5	<0.5	<0.5	<0.5	<2.0
04/15/99	202.47	197.13	5.34	<50	<0.5	<0.5	<0.5	<0.5	<5.0
07/22/99	202.47	196.97	5.50	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/13/99	202.47	196.43	6.04	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/21/00	202.47	197.11	5.36	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/10/00	202.47	197.60	4.87	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/12/00	202.47	197.05	5.42	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
<b>MW-2</b>									
04/04/96	198.88	196.07	2.81	<50	<0.5	<0.5	<0.5	<0.5	6,100
11/01/96	198.88	195.27	3.61	<500	<5.0	<5.0	<5.0	<5.0	2,600
01/06/97	198.88	195.97	2.91	<2,000	31	<20	<20	<20	4,000
04/14/97	198.88	195.43	3.45	<2,000	<20	<20	<20	<20	5,100/5,800 <sup>1</sup>
07/17/97	198.88	194.98	3.90	<500	<5.0	<5.0	<5.0	<5.0	2,300/2,900 <sup>1</sup>
10/29/97	198.88	192.96	5.92	120 <sup>2</sup>	12	<0.5	<0.5	<0.5	810/900 <sup>1</sup>
02/04/98	198.88	195.05	3.83	<1,000	<10	<10	<10	<10	2,100/2,800 <sup>1</sup>
04/03/98	198.88	191.55	7.33	<1,000	<10	<10	<10	<10	3,800/3,600 <sup>1</sup>
07/29/98	198.88	189.86	9.02	120 <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	2,800/3,900 <sup>1</sup>
10/26/98	198.88	192.77	6.11	<50	<0.5	<0.5	<0.5	<0.5	1,200

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
<b>MW-2 (cont)</b>									
01/18/99	198.88	194.67	4.21	<1,000	<10	<10	<10	10.5	2,530
04/15/99	198.88	194.56	4.32	<50	<0.5	<0.5	<0.5	<0.5	5,270
07/22/99	198.88	193.73	5.15	<50	8.92	<0.5	<0.5	<0.5	1,450
10/13/99	198.88	192.23	6.65	<250	<2.5	<2.5	<2.5	<2.5	1,740
01/21/00	198.88	192.78	6.10	69.6	<0.5	<0.5	<0.5	<0.5	1,110
04/10/00	198.88	194.42	4.46	<500	<5.0	<5.0	<5.0	<5.0	1,700
07/12/00	198.88	195.24	3.64	<50.0	<0.500	<0.500	<0.500	<0.500	187
<b>MW-3</b>									
04/04/96	199.10	195.22	3.88	<50	<0.5	<0.5	<0.5	<0.5	ND
11/01/96	199.10	194.91	4.19	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/06/97	199.10	195.29	3.81	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/14/97	199.10	194.93	4.17	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/17/97	199.10	194.92	4.18	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/29/97	199.10	193.90	5.20	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/04/98	199.10	194.71	4.39	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/03/98	199.10	195.78	3.32	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/29/98	199.10	189.24	9.86	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/26/98	199.10	193.59	5.51	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/18/99	199.10	194.68	4.42	<50	<0.5	<0.5	<0.5	<0.5	<2.0
04/15/99	199.10	194.54	4.56	<50	<0.5	<0.5	<0.5	1.16	<5.0
07/22/99	199.10	192.45	6.65	<50	<0.5	<0.5	<0.5	<0.5	3.94
10/13/99	199.10	193.79	5.31	<50	<0.5	<0.5	<0.5	<0.5	6.55
01/21/00	199.10	193.18	5.92	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/10/00	199.10	194.32	4.78	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/12/00	199.10	193.86	5.24	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
<b>TRIP BLANK</b>									
11/01/96	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/06/97	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/14/97	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/17/97	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/29/97	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/04/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/03/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/29/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/26/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/18/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
04/15/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
07/22/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/13/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/21/00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/10/00	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/12/00	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-8341  
3530 MacArthur Boulevard  
Oakland, California

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**EXPLANATIONS:**

Groundwater monitoring data and analytical results prior to April 10, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl tertiary butyl ether

ND = Not Detected

-- = Not Measured/Not Analyzed

- <sup>1</sup> Confirmation run.
- <sup>2</sup> Chromatogram report indicates an unidentified hydrocarbon and gas.
- <sup>3</sup> Chromatogram report indicates an unidentified hydrocarbon.

## 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, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride 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 Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used for all samples. 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 Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility # Chevron 9-8341 Job #: 386346  
 Address: 3530 MacArthur Blvd. Date: 7-12-00  
 City: Oakland, CA. Sampler: Brian Cox

Well ID: MW-1 Well Condition: OK  
 Well Diameter: 2" in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (Gallons): 0  
 Total Depth: 29.96 ft. Volume Factor (VF): 2" = 0.17, 3" = 0.38, 4" = 0.66  
 Depth to Water: 5.42 ft. 6" = 1.50, 12" = 5.80

24.57 x VF .17 = 4.1 X 3 (case volume) = Estimated Purge Volume: 12.3 (gal.)

Purge Equipment: Disposable Bailer / Suction / Grundfos / Other: \_\_\_\_\_  
 Sampling Equipment: Disposable Bailer / Bailer / Pressure Bailer / Grab Sample / Other: \_\_\_\_\_

Starting Time: 1:07 Weather Conditions: Sunny  
 Sampling Time: 1:17 Water Color: clear Odor: no  
 Purging Flow Rate: 3 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? no If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1:09	4	6.24	640	69.1			
1:11	8	6.36	642	71.2			
1:13	12	6.45	641	73.4			

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3x VOAVIAL	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

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

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility# Chevron 9-8341 Job#: 386346  
 Address: 3530 MacArthur Blvd. Date: 7-12-00  
 City: Oakland, CA. Sampler: Brian G.

Well ID: MW-2 Well Condition: oil  
 Well Diameter: 2" in. Hydrocarbon Thickness: 0 (feet) Amount Bailed 0 (Gallons)  
 Total Depth: 53.45 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66  
 Depth to Water: 3.64 ft. Factor (VF) 6" = 1.50 12" = 5.80

27.81 x VF 17 = 3.0 x 3 (case volume) = Estimated Purge Volume: 15 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
 Other: \_\_\_\_\_  
 Sampling Equipment: Disposable Bailer  
Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 1:46 Weather Conditions: Sunny  
 Sampling Time: 2:07 Water Color: clear Odor: no  
 Purging Flow Rate: 3 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:48</u>	<u>5</u>	<u>5.96</u>	<u>5.45</u>	<u>76.6</u>			
<u>1:51</u>	<u>10</u>	<u>6.28</u>	<u>5.37</u>	<u>79.6</u>			
<u>1:58</u>	<u>15</u>	<u>6.47</u>	<u>5.46</u>	<u>78.7</u>			

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES	
<u>MW-2</u>	<u>3x VOAVIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mbe</u>	

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

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility# Chevron 9-8341 Job#: 386346  
 Address: 3530 MacArthur Blvd. Date: 7-12-00  
 City: Oakland, CA. Sampler: Brian GAN

Well ID: MW-3 Well Condition: OK  
 Well Diameter: 2" in. Hydrocarbon Thickness: 6 (feet) Amount Bailed: 5 (Gallons)  
 Total Depth: 33.00 ft. Volume Factor (VF): 2" = 0.17, 3" = 0.98, 4" = 0.66  
 Depth to Water: 5.4 ft. 6" = 1.50, 12" = 5.80

27.72 x VF .17 = 4.7 x 3 (case volume) = Estimated Purge Volume: 14.1 (gal.)

Purge Equipment: Stack Suction Sampling Equipment: Disposable Bailer  
 Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: \_\_\_\_\_

Starting Time: 1:23 Weather Conditions: Sunny  
 Sampling Time: 1:37 Water Color: clear Odor: no  
 Purging Flow Rate: 3 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? no If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1:25	4.7	6.32	5.18	73.3			
1:27	6.4	6.30	5.16	73.1			
1:29	14.5	6.41	5.18	74.1			

LABORATORY INFORMATION						
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES	
MW-3	3x VOAVIAL	Y	HCL	SEQUOIA	TPH(G)/bTEX/mtbs	

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





# Sequoia Analytical

404 N. Wiget Lane  
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www.sequoialabs.com

28 July, 2000

Deanna L. Harding  
Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin, CA 94568

RE: Chevron  
Sequoia Report W007273

Enclosed are the results of analyses for samples received by the laboratory on 13-Jul-00 18:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater  
Project Manager

CA ELAP Certificate #1271





Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron #9-8341  
Project Manager: Deanna L. Harding

Reported:  
28-Jul-00 10:54

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W007273-01	Water	12-Jul-00 00:00	13-Jul-00 18:05
MW-1	W007273-02	Water	12-Jul-00 00:00	13-Jul-00 18:05
MW-2	W007273-03	Water	12-Jul-00 00:00	13-Jul-00 18:05
MW-3	W007273-04	Water	12-Jul-00 00:00	13-Jul-00 18:05







Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron #9-8341  
Project Manager: Deanna L. Harding

Reported:  
28-Jul-00 10:54

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT**  
**Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TB-LB (W007273-01) Water</b> Sampled: 12-Jul-00 00:00 Received: 13-Jul-00 18:05									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0070242	26-Jul-00	26-Jul-00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		109 %	60.0-140		"	"	"	"	
<b>MW-1 (W007273-02) Water</b> Sampled: 12-Jul-00 00:00 Received: 13-Jul-00 18:05									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0070242	26-Jul-00	26-Jul-00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		108 %	60.0-140		"	"	"	"	
<b>MW-2 (W007273-03) Water</b> Sampled: 12-Jul-00 00:00 Received: 13-Jul-00 18:05									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0070242	26-Jul-00	26-Jul-00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	187	2.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		107 %	60.0-140		"	"	"	"	





Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron #9-8341  
Project Manager: Deanna L. Harding

Reported:  
28-Jul-00 10:54

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT  
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (W007273-04) Water</b> <b>Sampled: 12-Jul-00 00:00</b> <b>Received: 13-Jul-00 18:05</b>									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0070242	26-Jul-00	26-Jul-00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		107 %		60.0-140	"	"	"	"	





Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron #9-8341  
Project Manager: Deanna L. Harding

Reported:  
28-Jul-00 10:54

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0070242 - EPA 5030B (MeOH)</b>										
<b>Blank (0070242-BLK1)</b>										
Prepared & Analyzed: 26-Jul-00										
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.9		"	10.0		109	60.0-140			
<b>LCS (0070242-BS1)</b>										
Prepared & Analyzed: 26-Jul-00										
Benzene	9.26	0.500	ug/l	10.0		92.6	70.0-130			
Toluene	9.80	0.500	"	10.0		98.0	70.0-130			
Ethylbenzene	9.61	0.500	"	10.0		96.1	70.0-130			
Xylenes (total)	28.5	0.500	"	30.0		95.0	70.0-130			
Methyl tert-butyl ether	7.47	2.50	"	10.0		74.7	70.0-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.4		"	10.0		114	60.0-140			
<b>Matrix Spike (0070242-MS1)</b>										
Source: W007273-02 Prepared & Analyzed: 26-Jul-00										
Benzene	8.73	0.500	ug/l	10.0	ND	87.3	60.0-140			
Toluene	9.61	0.500	"	10.0	ND	96.1	60.0-140			
Ethylbenzene	9.78	0.500	"	10.0	ND	97.8	60.0-140			
Xylenes (total)	28.6	0.500	"	30.0	ND	95.3	60.0-140			
Methyl tert-butyl ether	5.46	2.50	"	10.0	ND	54.6	60.0-140			Q-16
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.9		"	10.0		109	60.0-140			
<b>Matrix Spike Dup (0070242-MSD1)</b>										
Source: W007273-02 Prepared & Analyzed: 26-Jul-00										
Benzene	8.35	0.500	ug/l	10.0	ND	83.5	60.0-140	4.45	25.0	
Toluene	9.23	0.500	"	10.0	ND	92.3	60.0-140	4.03	25.0	
Ethylbenzene	9.30	0.500	"	10.0	ND	93.0	60.0-140	5.03	25.0	
Xylenes (total)	27.1	0.500	"	30.0	ND	90.3	60.0-140	5.39	25.0	
Methyl tert-butyl ether	5.20	2.50	"	10.0	ND	52.0	60.0-140	4.88	25.0	Q-16
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.5		"	10.0		105	60.0-140			



Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron #9-8341  
Project Manager: Deanna L. Harding

Reported:  
28-Jul-00 10:54

### Notes and Definitions

- Q-16 The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to interference from coeluting organic compounds present in the sample.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

