

ENVIRONMENTAL  
PROTECTION

97 JUL 15 AM 9:06



**Chevron**

July 11, 1997

Ms. Juliet Shin  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Chevron Products Company**  
6001 Bollinger Canyon Road  
Building L  
San Ramon, CA 94583  
P.O. Box 6004  
San Ramon, CA 94583-0904

**Marketing – Sales West**  
Phone 510 842 9500

Re: **Former Chevron Service Station #9-0191**  
**900 Otis Drive , Alameda, California**

Dear Ms. Shin:

Enclosed is the Second Quarter Groundwater Monitoring Report for 1997, prepared by our consultant Gettler-Ryan Inc., for the above noted site. Groundwater samples were analyzed for TPH-g, BTEX and MtBE constituents.

Monitoring wells MW-2 and MW-3 were both sampled in this quarter and analyzed for the constituents noted above. The remaining wells were measured for groundwater depth to determine the direction of flow. Monitoring well MW-2 was below method detection limits for all constituents while MW-3 was below method detection limits for the BTEX constituents.

Groundwater depth varied from 3.71 to 4.59 feet below grade with a direction of flow northwesterly.

With the latest sampling results, this appears to be a low risk site, and does not appear to be a significant risk to human health and to the environment. Therefore, Chevron requests that the wells be abandoned and the site be closed.

If you have any questions or comments, call me at (510) 842-9136.

Sincerely,  
CHEVRON PRODUCTS COMPANY

A handwritten signature in cursive script, appearing to read "Philip R. Briggs".

Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

July 11, 1997  
Ms. Juliet Shin  
Former Chevron Service Station # 9-0191  
Page 2

cc. Ms. Bette Owen, Chevron

Harsch Investment Corp.  
dba South Shore Center  
235 W. MacArthur Boulevard, #63  
Oakland, CA 94611

Mr. Phil Eyring  
Eyring Reality Inc.  
500 Ygnacio Valley Road, # 225  
Walnut Creek, CA 94596

Mr. Kevin Graves  
RWQCB-San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, CA 94612



# GETTLER-RYAN INC.

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July 3, 1997

Job #6324.80

Mr. Phillip Briggs  
Chevron Products Company  
P.O. Box 6004  
San Ramon, CA 94583

Re: Second Quarter Groundwater Monitoring & Sampling Report  
Former Chevron Service Station #9-0191  
900 Otis Drive  
Alameda, California

Dear Mr. Briggs:

This report documents the quarterly groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On June 3, 1997, field personnel were on-site to monitor six wells (MW-2 through MW-7) and sample two wells (MW-2 and MW-3) at the Former Chevron Service Station #9-0191 located at 900 Otis Drive in Alameda, California.

Static groundwater levels were measured on June 3, 1997. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are presented in Table 1. A potentiometric map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are presented in Table 1. The chain of custody document and laboratory analytical reports are attached.

Thank you for allowing Gettler-Ryan Inc. to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

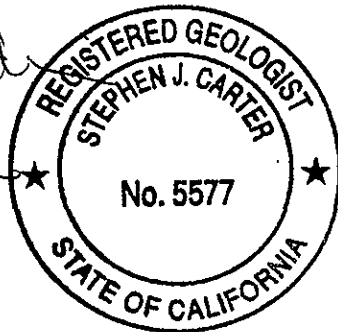
Sincerely,

*Deanna L. Harding*

Deanna L. Harding  
Project Coordinator

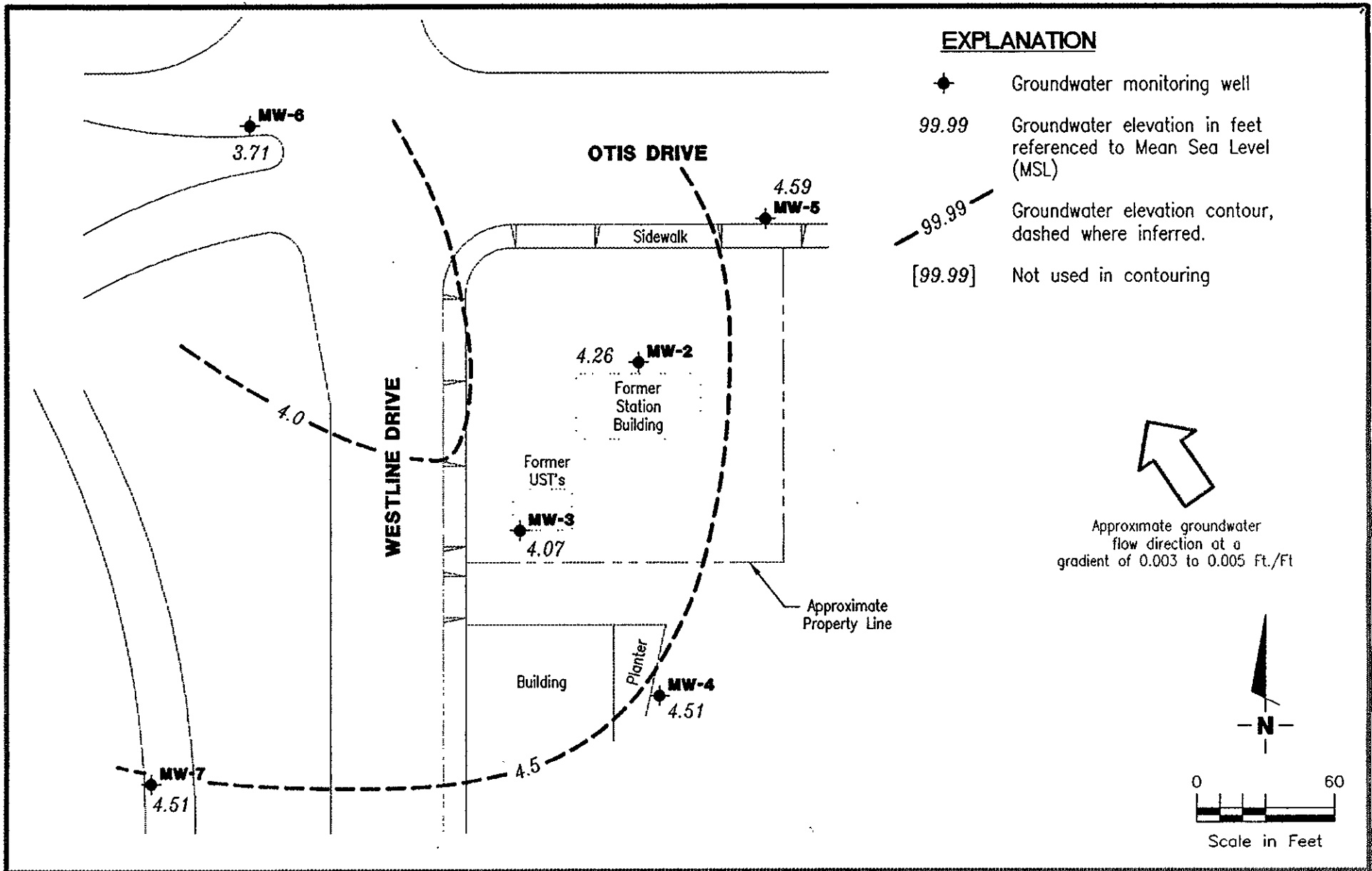
*Stephen J. Carter*

Stephen J. Carter  
Senior Geologist, R.G. No. 5577



DLH/SJC/dlh  
6324.QML

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



**Gertler - Ryan Inc.**

6747 Sierra Ct., Suite J (510) 551-7555  
Dublin, CA 94568

**POTENTIOMETRIC MAP**

Former Chevron Service Station No. 9-0191  
900 Otis Drive  
Alameda, California

FIGURE

1

JOB NUMBER  
6324

REVIEWED BY

DATE  
June 3, 1997

REVISED DATE



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0191, 900 Otis Drive, Alameda, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->				
						B	T	E	X	MTBE
MW-2/ 9.17	2/8/96	2.75	6.42	—	94	ND	ND	ND	ND	—
	6/27/96	4.99	4.18	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	5.21	3.96	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	4.54	4.63	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	3/5/97	4.09	5.08	0	—	—	—	—	—	—
	6/3/97	4.91	4.26	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-3/ 7.11	2/8/96	1.36	5.75	—	460	26	ND	5.8	ND	—
	6/27/96	3.22	3.89	0	130 <sup>1</sup>	<0.50	<0.50	<0.50	0.51	16
	9/3/96	3.08	4.03	0	160 <sup>2</sup>	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	2.68	4.43	0	260 <sup>2</sup>	4.3	<0.50	0.62	<0.50	50
	3/5/97	2.40	4.71	0	310 <sup>2</sup>	11	0.55	<0.50	<0.50	6.7
	6/3/97	3.04	4.07	0	260 <sup>1</sup>	<0.50	<0.50	<0.50	<0.50	10
MW-4/ 7.78	2/8/96	1.32	6.46	—	ND	ND	ND	ND	ND	—
	6/28/96	2.99	4.79	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	3.50	4.28	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	2.95	4.83	0	—	—	—	—	—	—
	3/5/97	2.55	5.23	0	—	—	—	—	—	—
	6/3/97	3.27	4.51	0	—	—	—	—	—	—
MW-5/ 7.37	2/8/96	0.75	6.62	—	ND	ND	ND	ND	ND	—
	6/27/96	2.66	4.71	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	3.29	4.08	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	2.66	4.71	0	—	—	—	—	—	—
	3/5/97	2.98	4.39	0	—	—	—	—	—	—
	6/3/97	2.78	4.59	0	—	—	—	—	—	—
MW-6/ 7.30	2/8/96	2.10	5.20	—	ND	ND	ND	ND	ND	—
	6/27/96	3.98	3.32	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	3.50	3.80	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	3.31	3.99	0	—	—	—	—	—	—
	3/5/97	3.15	4.15	0	—	—	—	—	—	—
	6/3/97	3.59	3.71	0	—	—	—	—	—	—



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0191, 900 Otis Drive, Alameda, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	ppb				
						B	T	E	X	MTBE
MW-7/ 9.58	2/8/96	3.24	6.34	—	ND	ND	ND	ND	ND	—
	6/27/96	5.07	4.51	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	5.29	4.29	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	4.95	4.63	0	—	—	—	—	—	—
	3/5/97	4.36	5.22	0	—	—	—	—	—	—
	6/3/97	5.07	4.51	0	—	—	—	—	—	—
Trip Blank	6/27/96	—	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	—	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	—	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	3/5/97	—	—	—	—	—	—	—	—	—
	6/3/97	—	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5

**EXPLANATION:**

TOC = Top of casing elevation  
 (ft) = feet  
 DTW = Depth to water  
 GWE = Groundwater elevation  
 msl = Measurements referenced relative to mean sea level  
 TPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline  
 B = Benzene  
 T = Toluene  
 E = Ethylbenzene  
 X = Xylenes  
 MTBE = Methyl tertiary-butyl ether  
 ppb = Parts per billion  
 ND = Not-Detected  
 — = Not analyzed/Not applicable

**ANALYTICAL METHODS:**

EPA Method 8015/5030 for TPH(G)  
 EPA Method 8020 for BTEX & MTBE

**NOTES:**

Water level elevation data and laboratory analytical results prior to June 27, 1996, were compiled from Quarterly Monitoring Reports prepared for Chevron by Pacific Environmental Group.

\* Product thickness was measured on and after June 27, 1996, with a MMC Flexi-Dip interface probe.

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

<sup>2</sup> Laboratory report indicates unidentified hydrocarbons < C8.



## 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 a MMC flexi-dip 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.

(5)

WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Clinic DATE 6-3-97  
 ADDRESS 900 Otis Drive JOB # 6324.85  
 CITY Alameda SS# 9-0191

Well ID MW-2 Well Condition okay

Well Location Description \_\_\_\_\_

Well Diameter 2" in Hydrocarbon Thickness 0

Total Depth 15' ft

Depth to Liquid 4.91 ft

# of casing 3x 10.09 x 0.17 x (VF) 1.7 #Estimated purge Volume 5.1 gal.

Purge Equipment Stack Bailer Sampling Equipment Bailer

Did well dewater No If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time 2:36 Purging Flow Rate \_\_\_\_\_ gpm.

Sampling Time 2:45

Time	pH	Conductivity	Temperature	Volume
<u>2:39</u>	<u>7.03</u>	<u>380</u>	<u>20.5</u>	<u>1.7</u>
<u>2:42</u>	<u>7.25</u>	<u>379</u>	<u>21.2</u>	<u>3.4</u>
<u>2:45</u>	<u>7.30</u>	<u>382</u>	<u>21.3</u>	<u>5.1</u>

Weather Conditions cloudy Rainy

Water Color: clear Odor: None

Sediment Description None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-2</u>	<u>3x40ml VOA</u>	<u>Y</u>	<u>HCL</u>	<u>BEG</u>	<u>Gas BTX MIBK</u>

Comments \_\_\_\_\_





(5)

### WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Chin DATE 6-3-97  
 ADDRESS 900 Otis Drive JOB # 6324.85  
 CITY Alameda SS# 9-0191

Well ID MW-3 Well Condition Okay

Well Location Description \_\_\_\_\_

Well Diameter 2" in Hydrocarbon Thickness 0

Total Depth 14' ft

Depth to Liquid 3.04 ft

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

# of casing 3x 10.96 x 0.17 x (VF) 1.86 #Estimated 3.6 gal. purge Volume

Purge Equipment Stack Sampling Equipment Barter

Did well dewater No If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time 8:28 Purging Flow Rate 1 gpm.

Sampling Time 8:30

Time	pH	Conductivity	Temperature	Volume
<u>8:30</u>	<u>7.94</u>	<u>326</u>	<u>20.4</u>	<u>2</u>
<u>8:32</u>	<u>7.95</u>	<u>375</u>	<u>21.6</u>	<u>4</u>
<u>8:34</u>	<u>7.90</u>	<u>378</u>	<u>21.5</u>	<u>6</u>
<u>8:36</u>	<u>7.85</u>	<u>375</u>	<u>21.5</u>	<u>7</u>

Weather Conditions Rainy Cloudy

Water Color: Clear Odor: None

Sediment Description None

### LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-3</u>	<u>3x40ml NAA</u>	<u>Y</u>	<u>HCL</u>	<u>BEG</u>	<u>COAS BTX2 MIBX</u>

Comments \_\_\_\_\_



(5)

### WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Clinic DATE 6-3-97  
 ADDRESS 900 Otis Drive JOB # 6324.85  
 CITY Alameda SS# 9-0191

Well ID MW-4 Well Condition dry

Well Location Description \_\_\_\_\_

Well Diameter 2" in Hydrocarbon Thickness 0

Total Depth \_\_\_\_\_ ft

Depth to Liquid 327 ft

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

# of casing 3x Volume x 0.17 x (VF) # Estimated purge Volume gal.

Purge Equipment Stack Sampling Equipment Barlev

Did well dewater \_\_\_\_\_ If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time \_\_\_\_\_ Purging Flow Rate \_\_\_\_\_ gpm.

Sampling Time \_\_\_\_\_

Time	pH	Conductivity	Temperature	Volume
_____	<u>w/c</u>	<u>only</u>	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Weather Conditions \_\_\_\_\_

Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_

Sediment Description \_\_\_\_\_

### LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-</u>	<u>3x40ml WA</u>	<u>Y</u>	<u>HCL</u>	<u>BBL</u>	<u>Gas BTX2 MIBK</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments Water level only -



(5)

WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Chin DATE 6-3-97  
 ADDRESS 900 Otis Drive JOB # 6324.85  
 CITY Alameda SS# 9-0191

Well ID AW-5 Well Condition okay

Well Location Description \_\_\_\_\_

Well Diameter 2" in Hydrocarbon Thickness 0

Total Depth \_\_\_\_\_ ft

Depth to Liquid 2.78 ft

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

# of casing 3x Volume 0.17 x (VF) Estimated # Estimated purge Volume gal.

Purge Equipment Stack Sampling Equipment Boiler

Did well dewater \_\_\_\_\_ If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time \_\_\_\_\_ Purging Flow Rate \_\_\_\_\_ gpm.

Sampling Time \_\_\_\_\_

Time	pH	Conductivity	Temperature	Volume
	<u>w/c only</u>			

Weather Conditions \_\_\_\_\_

Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_

Sediment Description \_\_\_\_\_

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>AW-</u>	<u>3x40ml WA</u>	<u>Y</u>	<u>HCL</u>	<u>BBG</u>	<u>Gas BTX &amp; MTB</u>

Comments Water level only

WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Chin DATE 6-3-97

ADDRESS 900 Otis Drive JOB # 6324.85

CITY Alameda SS# 9-0191

Well ID MW-6 Well Condition dry

Well Location Description \_\_\_\_\_

Well Diameter 2" in Hydrocarbon Thickness 0

Total Depth \_\_\_\_\_ ft

Depth to Liquid 3.59 ft

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

# of casing 3x Volume 0.17 x (VF) # Estimated purge Volume gal.

Purge Equipment Stack Sampling Equipment Bailey

Did well dewater \_\_\_\_\_ If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time \_\_\_\_\_ Purging Flow Rate \_\_\_\_\_ gpm.

Sampling Time \_\_\_\_\_

Time	pH	Conductivity	Temperature	Volume
	<u>w/c</u>	<u>only</u>		

Weather Conditions \_\_\_\_\_

Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_

Sediment Description \_\_\_\_\_

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-</u>	<u>3x40ml WA</u>	<u>Y</u>	<u>HCL</u>	<u>DEU</u>	<u>GAS BYZ MTR</u>

Comments water level only

(5)

### WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Chin DATE 6-3-97  
 ADDRESS 900 GTIS Drive JOB # 6324.85  
 CITY Alameda SS# 9-0191

Well ID MW-7 Well Condition OK

Well Location Description \_\_\_\_\_

Well Diameter 2" in Hydrocarbon Thickness 0

Total Depth \_\_\_\_\_ ft

Depth to Liquid 5.07 ft

Volume	2" = 0.17	6" = 1.50	12" = 5.30
Factor	3" = 0.33		
(VF)	4" = 0.66		

# of casing 3x Volume \_\_\_\_\_ x 0.17 x(VF) #Estimated \_\_\_\_\_ gal.  
 Volume \_\_\_\_\_

Purge Equipment Stack Sampling Equipment Barlev

Did well dewater \_\_\_\_\_ If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time \_\_\_\_\_ Purging Flow Rate \_\_\_\_\_ gpm.

Sampling Time \_\_\_\_\_

Time	pH	Conductivity	Temperature	Volume
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Weather Conditions \_\_\_\_\_

Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_

Sediment Description \_\_\_\_\_

### LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-</u>	<u>3x40ml VBA</u>	<u>Y</u>	<u>HCL</u>	<u>BBQ</u>	<u>Gas BTX METALS</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments Water level only

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>#9-0191</u>	Chevron Contact (Name) <u>Mr. Phil Briggs</u>
	Facility Address <u>900 Otis Drive, Alameda, CA</u>	(Phone) <u>(510) 842-9136</u>
	Consultant Project Number <u>6324.80</u>	Laboratory Name <u>SEQUOIA</u> Service Code: <u>Z202790</u>
	Consultant Name <u>Gettler-Ryan</u>	Laboratory Service Order # <u>9033187</u>
Address <u>6747 Sierra Ct, Ste J, Dublin 94568</u>		Samples Collected by (Name) <u>F. Chne</u>
Project Contact (Name) <u>Deanna Harding</u>		Collection Date <u>6-3-97</u>
(Phone) <u>551-7555</u> (Fax Number) <u>551-7888</u>		Signature <u>[Signature]</u>

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes To Be Performed <u>9706169</u>											Remarks		
								TPH Gas + BTEX w/MTBE (8016)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)						
TB-10	1	2	W	TB		MLL	Y	X													
MW-2	2	3	↓	G	245	↓	↓	X													
MW-3	3	3	↓	G	836	↓	↓	X													

JUN 4 12 10

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>6-4-97 0800</u>	Received By (Signature) <u>D. Harding</u>	Organization <u>G-R Inc.</u>	Date/Time <u>6/4/97 8:00</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature) <u>D. Harding</u>	Organization <u>G-R</u>	Date/Time <u>6/4/97 8:40</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>SEQ. (51)</u>	Date/Time <u>6/4/97 09:40</u>	
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>SEQ.</u>	Date/Time <u>6/4/97 1210</u>	Received For Laboratory By (Signature) <u>[Signature]</u>	Date/Time <u>6-4-97 1210</u>		

UC-200-000-00-01/000



Gettler Ryan/Geostrategies 6747 Sierra Court Suite G Dublin, CA 94568	Client Proj. ID: Chevron 9-0191, Alameda Sample Descript: TB-LB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706169-01	Sampled: 06/03/97 Received: 06/04/97 Analyzed: 06/10/97 Reported: 06/12/97
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QC Batch Number: GC061097BTEX06A  
Instrument ID: GCHP06

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	97

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

  
\_\_\_\_\_  
Mike Gregory  
Project Manager





Gettler Ryan/Geostrategies 6747 Sierra Court Suite G Dublin, CA 94568	Client Proj. ID: Chevron 9-0191, Alameda Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706169-02	Sampled: 06/03/97 Received: 06/04/97 Analyzed: 06/10/97 Reported: 06/12/97
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QC Batch Number: GC061097BTEX06A  
Instrument ID: GCHP06

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	94

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory  
Project Manager





Gettler Ryan/Geostrategies 6747 Sierra Court Suite G Dublin, CA 94568	Client Proj. ID: Chevron 9-0191, Alameda Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706169-03	Sampled: 06/03/97 Received: 06/04/97  Analyzed: 06/11/97 Reported: 06/12/97
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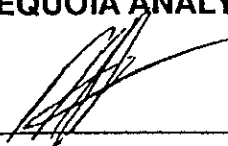
QC Batch Number: GC061197BTEX01A  
 Instrument ID: GCHP01

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	260
Methyl t-Butyl Ether	2.5	10
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Weathered Gas		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	85

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

  
 Mike Gregory  
 Project Manager



Gettler Ryan/Geostrategies  
6747 Sierra Court Suite G  
Dublin, CA 94568  
Attention: Deanna Harding

Client Proj. ID: Chevron 9-0191, Alameda  
Lab Proj. ID: 9706169

Received: 06/04/97  
Reported: 06/12/97

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 7 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Mike Gregory  
Project Manager



Gettler Ryan/Geostrategies Client Project ID: Chevron 9-0191, Alameda  
 6747 Sierra Court, Ste J Matrix: Liquid  
 Dublin, CA 94568  
 Attention: Deanna Harding Work Order #: 9706169 01, 02 Reported: Jun 12, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC061097BTEX06A	GC061097BTEX06A	GC061097BTEX06A	GC061097BTEX06A	GC061097BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970627907	970627907	970627907	970627907	970627907
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/10/97	6/10/97	6/10/97	6/10/97	6/10/97
Analyzed Date:	6/10/97	6/10/97	6/10/97	6/10/97	6/10/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	10	9.9	29	70
MS % Recovery:	100	100	99	97	117
Dup. Result:	9.3	8.9	9.0	25	63
MSD % Recov.:	93	89	90	83	105
RPD:	7.3	12	9.5	15	11
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK061097BSA	BLK061097BSA	BLK061097BSA	BLK061097BSA	BLK061097BSA
Prepared Date:	6/10/97	6/10/97	6/10/97	6/10/97	6/10/97
Analyzed Date:	6/10/97	6/10/97	6/10/97	6/10/97	6/10/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10	10	10	30	67
LCS % Recov.:	100	100	100	100	112

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130	70-130
Control Limits					

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

**SEQUOIA ANALYTICAL**

Mike Gregory  
Project Manager

\*\* MS= Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9706169.GET <1>



Gettler Ryan/Geostrategies Client Project ID: Chevron 9-0191, Alameda  
 6747 Sierra Court, Ste J Matrix: Liquid  
 Dublin, CA 94568  
 Attention: Deanna Harding Work Order #: 9706169 03 Reported: Jun 12, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC061197BTEX01A	GC061197BTEX01A	GC061197BTEX01A	GC061197BTEX01A	GC061097BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	970617402	970617402	970617402	970617402	970617402
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/11/97	6/11/97	6/11/97	6/11/97	6/11/97
Analyzed Date:	6/11/97	6/11/97	6/11/97	6/11/97	6/11/97
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	11	11	11	31	77
MS % Recovery:	110	110	110	103	128
Dup. Result:	11	10	10	30	75
MSD % Recov.:	110	100	100	100	125
RPD:	0.0	9.5	9.5	3.3	2.6
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK061197BSA	BLK061197BSA	BLK061197BSA	BLK061197BSA	BLK061197BSA
Prepared Date:	6/11/97	6/11/97	6/11/97	6/11/97	6/11/97
Analyzed Date:	6/11/97	6/11/97	6/11/97	6/11/97	6/11/97
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	11	10	10	30	73
LCS % Recov.:	110	100	100	100	122

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130	70-130
Control Limits					

**Please Note:**  
 The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

**SEQUOIA ANALYTICAL**

*Mike Gregory*  
 Mike Gregory  
 Project Manager