



**Chevron**

February 13, 1996

**Chevron U.S.A. Products Company**  
6001 Bollinger Canyon Rd., Bldg. L  
P O Box 5004  
San Ramon, CA 94583-0804

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

**Mark A. Miller**  
SAR Engineer  
Phone No 510 842-8134  
Fax No. 510 842-8252

**Re: Former Gulf Service Station #0006  
460 Grand Avenue, Oakland, CA**

Dear Ms. Eberle:

Enclosed is the Quarterly Groundwater Sampling Report dated January 16, 1996, prepared by our consultant Gettler-Ryan, Inc. for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene concentrations were below method detection limits in all samples analyzed with the exception of low concentrations observed in C-2. These concentrations, however, were below Maximum Contaminant Levels (MCL's) for drinking water. Depth to ground water was measured at approximately 4.7 to 6.9 feet below grade and the direction of flow is to the south.

As discussed in Chevron's August 25, 1995, letter, we will begin conducting a risk analysis to justify closure of the site. We hope to have this accomplished during the second quarter of 1996. If you have any questions or comments, please feel free to call me at (510) 842-8134.

Sincerely,  
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller  
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Jon Robbins - CHVPK/V1156  
Ms. B.C. Owen

Mr. John C. Gibson, Adams & Gibson, 160 Sansome Street, Suite 1200,  
San Francisco, CA 94104-3718

ENVIRONMENTAL  
PROTECTION  
55 FEB 20 PM 9:55



# GETTLER-RYAN INC.

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January 16, 1996

Job #5208.80

Mr. Mark Miller  
Chevron USA Products Company  
P.O. Box 5004  
San Ramon, CA 94583

Re: Former Gulf Service Station 0006  
460 Grand Avenue  
Oakland, California

Dear Mr. Miller:

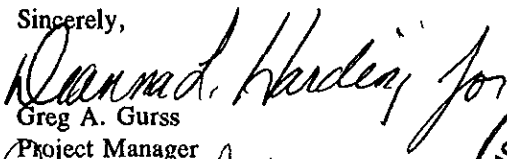
This report documents the quarterly groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On December 12, 1995, field personnel were on-site to monitor and sample four wells (C-1 through C-4) at the Former Gulf Service Station 0006 located at 460 Grand Avenue in Oakland, California.

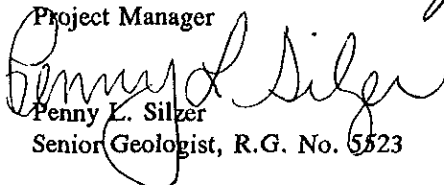
Static groundwater levels were measured on December 12, 1995. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the site wells. Static water level data and groundwater elevations are presented in Table 1. A potentiometric map is included as Figure 1.

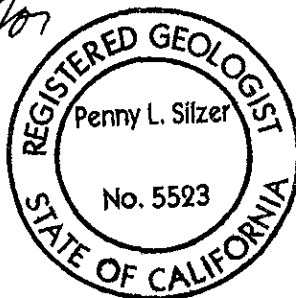
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Quarterly Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by GTEL Environmental Laboratories, Inc. Analytical results are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

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

Sincerely,

  
Greg A. Gurs  
Project Manager

  
Penny L. Silzer  
Senior Geologist, R.G. No. 5523

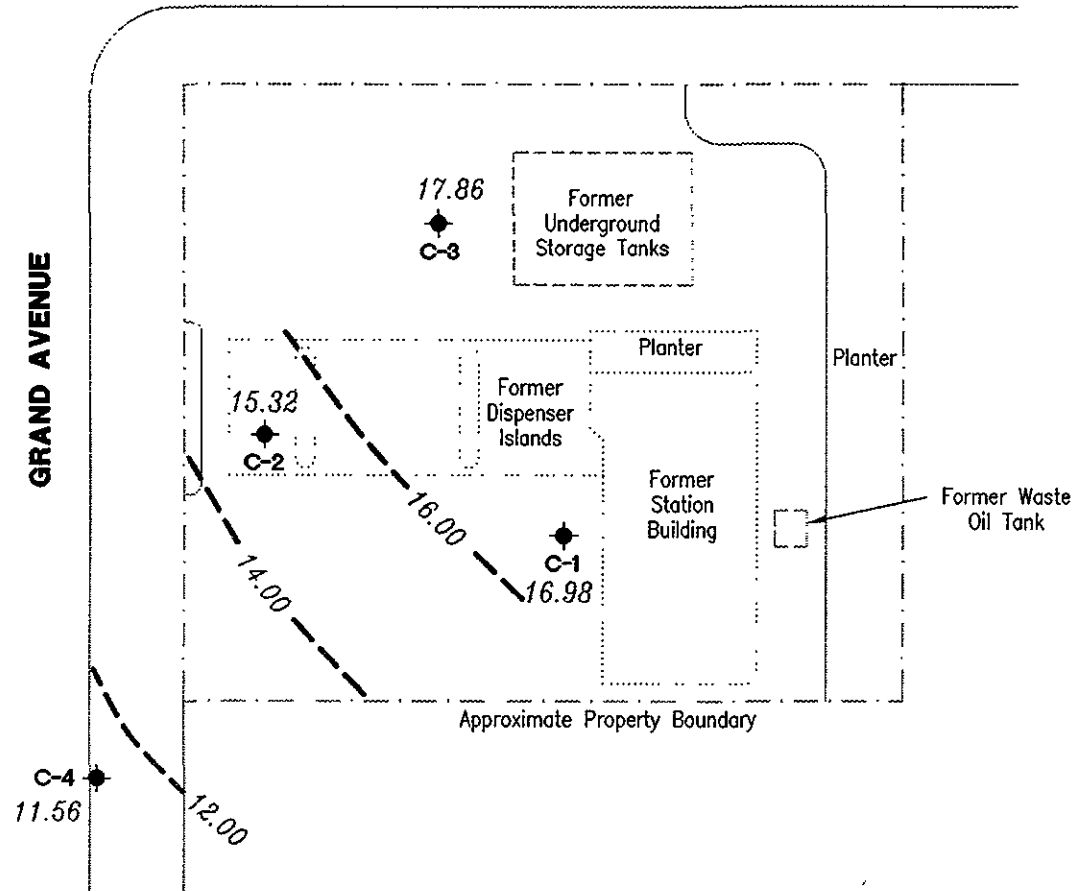


GAG/PLS/dlh  
5208.QML

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

**BELLEVUE AVENUE**

**GRAND AVENUE**



**EXPLANATION**

- ◆ Groundwater monitoring well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- - - 99.99 - - - Groundwater elevation contour, dashed where inferred.



Approximate groundwater flow direction at a gradient of 0.08 Ft./Ft.



**Gettler - Ryan Inc.**

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

**POTENTIOMETRIC MAP**

Former Gulf Service Station No. 0006  
460 Grand Avenue  
Oakland, California

FIGURE

**1**

JOB NUMBER  
5208.80

REVIEWED BY  
*[Signature]*

DATE  
December 12, 1995

REVISED DATE



Table 1. Water Level Data and Groundwater Analytical Results - Former Gulf Service Station 0006, 460 Grand Avenue, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----	ppb				MTBE >-----
						B	T	E	X	
C-1/ 22.48 <sup>1</sup>	12/16/92 <sup>2,3,4,5</sup>	5.68	16.80	0	<50	<0.5	<0.3	<0.3	<0.4	---
	6/22/94	5.55	16.93	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/26/94	6.07	16.41	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/12/94	5.28	17.20	0	<50	2.9	3.8	<0.5	<0.5	---
	3/22/95	2.86	19.62	0	<50	<0.5	<0.5	<0.5	<0.5	---
	6/5/95	4.86	17.62	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/20/95	5.82	16.66	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/12/95	5.50	16.98	0	<50	<0.50	<0.50	<0.50	<0.50	8.7
C-2/ 20.49 <sup>1</sup>	12/16/92 <sup>2,3,6,7</sup>	7.49	13.00	0	640	63	83	37	90	---
	6/22/94	5.48	15.01	0	200	2.8	4.5	1.5	15	---
	9/26/94	6.02	14.47	0	<50	1.1	1.1	<0.5	0.5	---
	12/12/94	5.17	15.32	0	77	2.8	4.6	3.4	15	---
	3/22/95	2.60	17.89	0	590	<0.5	<0.5	38	130	---
	6/5/95	5.29	15.20	0	<50	<0.5	<0.5	1.9	4.9	---
	9/20/95	5.59	14.90	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/12/95	5.17	15.32	0	80	0.93	<0.50	<0.50	<0.50	5.1
C-3/ 22.51 <sup>1</sup>	12/16/92 <sup>2,3,5,8</sup>	5.17	17.34	0	<50	<0.4	<0.3	<0.3	<0.4	---
	6/22/94	5.10	17.41	0	140	5.6	3	4.2	4.4	---
	9/26/94	5.66	16.85	0	51	4.2	4.2	0.7	1.5	---
	12/12/94	4.60	17.91	0	<50	2.6	3.6	1.1	4.2	---
	3/22/95	2.31	20.20	0	<50	<0.5	<0.5	<0.5	<0.5	---
	6/5/95	4.61	17.90	0	<50	0.6	<0.5	<0.5	<0.5	---
	9/20/95	5.09	17.42	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/12/95	4.65	17.86	0	<50	<0.50	<0.50	<0.50	<0.50	0.91
C-4/ 18.44 <sup>9</sup>	6/5/95	7.24	11.20	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/20/95	7.31	11.13	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/12/95	6.88	11.56	0	<50	<0.50	<0.50	<0.50	<0.50	<0.60
Trip Blank TB-LB	6/22/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/26/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	12/12/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/22/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	6/5/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/20/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	12/12/95	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<0.60



Table 1. Water Level Data and Groundwater Analytical Results - Former Gulf Service Station 0006, 460 Grand Avenue, Oakland, California  
(continued)

EXPLANATION:

DTW = Depth to water  
TOC = Top of casing elevation  
GWE = Groundwater elevation  
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  
-- = Not analyzed/not applicable

ANALYTICAL METHODS:

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

NOTES:

Water level elevation data and laboratory analytic results prior to March 22, 1995 were compiled from Quarterly Monitoring Reports prepared for Chevron by Sierra Environmental Services.

NOTES: (continued)

- \* Product thickness was measured with an MMC flexi-dip interface probe on and after June 22, 1994.
- <sup>1</sup> TOC elevation is actually top of box elevation.
- <sup>2</sup> TPH(D) was also analyzed but not detected at detection limits of 50 ppb.
- <sup>3</sup> Motor oil was also analyzed but not detected at detection limits of 200 ppb.
- <sup>4</sup> Cadmium, chromium, lead, nickel and zinc were also analyzed but not detected at detection limits of 0.005, 0.01, 0.05, 0.02, and 0.01 ppm, respectively.
- <sup>5</sup> Analysis by EPA method 8010 for Halogenated Volatile Organic Compounds (HVOCs) was also performed. HVOCs were not detected at detection limits of 0.2 to 4.0 ppb.
- <sup>6</sup> Cadmium, chromium, lead, nickel and zinc were also analyzed. Chromium, Nickel and zinc were detected at 0.05, 0.08 and 0.08 ppm, respectively. Other metals not detected.
- <sup>7</sup> Analysis by EPA method 8010 for HVOCs was also performed. 1,2-Dichloroethane was detected at 3.5 ppb. Other HVOCs were not detected at detection limits of 0.2 to 4.0 ppb.
- <sup>8</sup> Cadmium, chromium, lead, nickel and zinc were also analyzed. Chromium, lead, nickel and zinc were detected at 0.19, 0.07, 0.36 and 0.38 ppm, respectively. Cadmium was not detected at detection limits of 0.005 ppm.
- <sup>9</sup> TOC for well C-4 was surveyed June 9, 1995 by Mission Engineers of Santa Clara, California.



## STANDARD OPERATING PROCEDURE QUARTERLY GROUNDWATER SAMPLING

Gettler-Ryan 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 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 analytic 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, preservative (if any), and the sample collector's initials. The water samples are placed in cooler maintained at 4 C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivery 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 USA Products Company, the purge and decontamination water generated during sampling activities is taken to Chevron's Richmond Refinery for disposal.

WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 12-12-95  
 ADDRESS 760 Grand Ave JOB # 5208.85  
 CITY Oakland SS# 9-0006

Well ID C-1 Well Condition OK  
 Well Location Description ~ 20' from the fence SE of property

Well Diameter 2 in Hydrocarbon Thickness 0

Total Depth 14.96 ft

Depth to Liquid 5.50 ft

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

3 # of casing Volume 9.46 x .17 x(VF) 1.6 #Estimated 4.8 gal. <sup>↑</sup>purge Volume

Purge Equipment Stack Pump Sampling Equipment Disposable Bailer

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

Starting Time 1627 Purging Flow Rate 1.5 gpm.

Sampling Time 1635

Time	pH	Conductivity	Temperature	Volume
<u>1628</u>	<u>7.6</u>	<u>630</u>	<u>69.6</u>	<u>1.5</u> gal
<u>1629</u>	<u>7.4</u>	<u>630</u>	<u>70.3</u>	<u>3.0</u>
<u>1630</u>	<u>7.3</u>	<u>610</u>	<u>70.4</u>	<u>4.5</u>
<u>1635</u>	<u>7.3</u>	<u>610</u>	<u>70.4</u>	<u>5.0</u>

Weather Conditions Cloudy  
 Water Color: clear Odor: none  
 Sediment Description none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>C-1</u>	<u>2040ml</u>	<u>Y</u>	<u>HCL</u>	<u>GTEL</u>	<u>Gas BTEX/HPCF</u>

Comments \_\_\_\_\_

### WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 12-12-95  
 ADDRESS 460 Grand Ave JOB # 5208.85  
 CITY Dakeland SS# 9-0006

Well ID C-2 Well Condition OK  
 Well Location Description in 10' from sidewalk on Grand Ave

Well Diameter 2 in Hydrocarbon Thickness Ø  
 Total Depth 14.48 ft  
 Depth to Liquid 5.17 ft

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

# of casing Volume 9.31 x .17 x(VF) 1.6 #Estimated 4.4 gal.  
 Purge Volume

Purge Equipment Stack Pump Sampling Equipment Disposable Bailers  
 Did well dewater yes If yes, Time \_\_\_\_\_ Volume 3.0 gal

Starting Time 1701 Purging Flow Rate 1.5 gpm.  
 Sampling Time 1751

Time	pH	Conductivity	Temperature	Volume
<u>1702</u>	<u>7.2</u>	<u>640</u>	<u>68.9</u>	<u>1.5 gal</u>
<u>1703</u>	<u>7.2</u>	<u>630</u>	<u>68.1</u>	<u>3.0 gal</u>
<u>1751</u>	<u>7.2</u>	<u>610</u>	<u>68.3</u>	<u>4.0 gal</u>

Weather Conditions Cloudy  
 Water Color: clear Odor: none  
 Sediment Description none

#### LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>C-2</u>	<u>3x40ml</u>	<u>Y</u>	<u>HCL</u>	<u>GTEL</u>	<u>GM BTEX/TPBE</u>

Comments \_\_\_\_\_



WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 12-12-95  
 ADDRESS 460 Grand Ave JOB # 5208.85  
 CITY Oakland SS# 9-0006

Well ID C-3 Well Condition OK  
 Well Location Description ~20' from property line on Bellevue Ave

Well Diameter 2 in Hydrocarbon Thickness 0  
 Total Depth 14.80 ft  
 Depth to Liquid 4.65 ft

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

# of casing Volume 3 x 10.15 x (VF) 1.7 x (VF) 1.7 #Estimated purge Volume 5.2 gal.

Purge Equipment Stack Pump Sampling Equipment Disposable Bailer  
 Did well dewater yes If yes, Time \_\_\_\_\_ Volume 4 gal.

Starting Time 1647 Purging Flow Rate 2 gpm.  
 Sampling Time 1738

Time	pH	Conductivity	Temperature	Volume gal
<u>1648</u>	<u>7.3</u>	<u>730</u>	<u>69.8</u>	<u>2</u>
<u>1649</u>	<u>7.1</u>	<u>720</u>	<u>69.1</u>	<u>4</u>
<u>1738</u>	<u>7.1</u>	<u>730</u>	<u>69.6</u>	<u>5</u>

Weather Conditions Cloudy  
 Water Color: clear Odor: none  
 Sediment Description none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>C-3</u>	<u>3x40ml.</u>	<u>γ</u>	<u>HCl</u>	<u>GTEL</u>	<u>Gal BTEX / PAHs</u>

Comments \_\_\_\_\_

**WELL SAMPLING FIELD DATA SHEET**

SAMPLER Guadalupe Sanchez DATE 12-12-91  
 ADDRESS 460 Grand Ave JOB # 5208.81  
 CITY Oakland SS# 9-0006

Well ID C-4 Well-Condition OK  
 Well Location Description ~ 2' from the curve on Grand Ave

Well Diameter 2 in Hydrocarbon Thickness 0

Total Depth 19.80 ft  
 Depth to Liquid 6.88 ft

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

# of casing Volume 12.92 x 0.17 x(VF) 2.2 #Estimated 6.6 gal.  
 Purge Volume

Purge Equipment Stack Pump Sampling Equipment Disposable Bailer

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

Starting Time 1605 Purging Flow Rate 2 gpm.  
 Sampling Time 1612

Time	pH	Conductivity	Temperature	Volume
<u>1606</u>	<u>7.3</u>	<u>590</u>	<u>68.7</u>	<u>2 gal</u>
<u>1607</u>	<u>7.2</u>	<u>550</u>	<u>69.3</u>	<u>4</u>
<u>1608</u>	<u>7.2</u>	<u>560</u>	<u>69.2</u>	<u>6</u>
<u>1612</u>	<u>7.2</u>	<u>560</u>	<u>69.2</u>	<u>7</u>

Weather Conditions Cloudy  
 Water Color: clear Odor: none  
 Sediment Description none

**LABORATORY INFORMATION**

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>C-4</u>	<u>3040 ml</u>	<u>Y</u>	<u>HCL</u>	<u>GTCL</u>	<u>Gas BTEX/HAPs</u>

Comments \_\_\_\_\_

**Chevron U.S.A. Inc.**  
 P.O. BOX 5004  
 San Ramon, CA 94583  
 FAX (415)842-9591

Chevron Facility Number 9-0006  
 Facility Address 460 Grand Ave. Oakland.  
 Consultant Project Number 5208-85  
 Consultant Name Gettler-Ryan  
 Address 6747 Sierra Ct, Ste J, Dublin 94568  
 Project Contact (Name) Deanna Harding  
 (Phone) 510 551-7555 (Fax Number) 551-7888

Chevron Contact (Name) Mark Miller  
 (Phone) (510) 842-8154  
 Laboratory Name GTEC  
 Laboratory Release Number 3471060  
 Samples Collected by (Name) Guadalupe Sanchez  
 Collection Date 12-12-95  
 Signature Guadalupe Sanchez

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analysis To Be Performed										DO NOT BILL TB-LB ANALYSIS						
								TPH Gas + BTEX W/M/TB/E (801B)	TPH Diesel (801S)	Oil and Grease (8520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)						Remarks			
TB-LB	01	2	W	G	-	HL	Y	X																
C-4	02	3			1612																			
C-1	03	1			1635																			
C-3	04	1			1738																			
C-2	05	1			1751																			

Relinquished By (Signature) <i>Deanna Harding</i>	Organization G-R	Date/Time 12/13/95	Received By (Signature) <i>Deanna Harding</i>	Organization G-R	Date/Time 12/13/95 8:20	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <input checked="" type="radio"/> As Contracted
Relinquished By (Signature) <i>Deanna Harding</i>	Organization G-R	Date/Time 12/13/95 1:30	Received By (Signature) <i>John Weber</i>	Organization GTEC	Date/Time 12/13/95 1:30	
Relinquished By (Signature) <i>John Weber</i>	Organization GTEC	Date/Time 12/14/95 18:00	Received For Laboratory By (Signature) <i>Kevin Alexander</i>		Date/Time 12/14/95 18:00	

COC-3/UMS/CS R / TRC



# GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

**Midwest Region**

4211 May Avenue  
Wichita, KS 67209  
(316) 945-2624  
(800) 633-7936  
(316) 945-0506 (FAX)

Project Number: 5208.85  
Chevron SS  
#9-0006  
460 Grand Ave.  
Oakland, CA

Work Order Number: W5-12-0388

January 11, 1996

Deanna Harding  
Gettler-Ryan  
6747 Sierra Ct.  
Suite J  
Dublin, CA 94568

RECEIVED

JAN 18 1996

GETTLER-RYAN INC.  
GENERAL CONTRACTORS

Dear Deanna Harding:

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories on 12-14-95 under your chain-of-custody record.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the Department of California Health Services under Certification Number 1845.

If you have any questions concerning this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

*Justin Ward, Project Coordinator for*  
Terry R. Loucks  
Laboratory Director



GTEL (Wichita)  
4211 May Ave.  
Wichita, KS 67209  
Attention: Justin Ward

Client Project ID: Chevron #9-0006  
Sample Matrix: Water  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 512-1453

Sampled: Dec 12, 1995  
Received: Dec 14, 1995  
Reported: Jan 8, 1996

QC Batch Number: GC010395 GC122395 GC122395 GC122395 GC122395  
802005A 802002A 802002A 802002A 802002A

**TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION**

Analyte	Reporting Limit µg/L	Sample I.D. 512-1453 TB-LB	Sample I.D. 512-1454 C-4	Sample I.D. 512-1455 C-1	Sample I.D. 512-1456 C-3	Sample I.D. 512-1457 C-2
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	80
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	0.93
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.

Chromatogram Pattern: -- -- -- -- Gasoline

**Quality Control Data**

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	1/3/96	12/23/95	12/23/95	12/23/95	12/23/95
Instrument Identification:	HP-5	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	87	103	105	100	106

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Kenneth M. Wimer  
Project Manager

Please Note:

TB-LB sample was first analyzed on 12/23/95, then reshot on 1/3/96.



**Sequoia  
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GTEL (Wichita)  
4211 May Ave.  
Wichita, KS 67209  
Attention: Justin Ward

Client Project ID: Chevron #9-0006  
Sample Descript: Water  
Analysis for: MTBE (Modified EPA 8020)  
First Sample #: 512-1453

Sampled: Dec 12, 1995  
Received: Dec 14, 1995  
Analyzed: Dec 23-Jan 3, 96  
Reported: Jan 8, 1996

**LABORATORY ANALYSIS FOR: MTBE (Modified EPA 8020)**

Sample Number	Sample Description	Detection Limit µg/L	Sample Result µg/L	QC Batch Number	Instrument ID
512-1453	TB-LB	0.60	N.D.	GC010396802005A	HP-5
512-1454	C-4	0.60	N.D.	GC122395802002A	HP-2
512-1455	C-1	0.60	8.7	GC122395802002A	HP-2
512-1456	C-3	0.60	0.91	GC122395802002A	HP-2
512-1457	C-2	0.60	5.1	GC122395802002A	HP-2

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

SEQUOIA ANALYTICAL, #1271

  
Kenneth Wimer  
Project Manager



GTEL (Wichita)  
4211 May Ave.  
Wichita, KS 67209  
Attention: Justin Ward

Client Project ID: **Chevron #9-0006**  
Matrix: **Liquid**

QC Sample Group: 5121453-457

Reported: Jan 8, 1996

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC010396 802005A	GC010396 802005A	GC010396 802005A	GC010396 802005A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	N. Beaman	N. Beaman	N. Beaman	N. Beaman
MS/MSD #:	5122408	5122408	5122408	5122408
Sample Conc.:	0.99 mg/L	N.D.	N.D.	N.D.
Prepared Date:	1/3/96	1/3/96	1/3/96	1/3/96
Analyzed Date:	1/3/96	1/3/96	1/3/96	1/3/96
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	18	18	17	53
MS % Recovery:	90	90	85	88
Dup. Result:	18	19	19	59
MSD % Recov.:	90	95	95	98
RPD:	0.0	5.4	11	11
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	3LCS010396	3LCS010396	3LCS010396	3LCS010396
Prepared Date:	1/3/96	1/3/96	1/3/96	1/3/96
Analyzed Date:	1/3/96	1/3/96	1/3/96	1/3/96
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	21	21	21	63
LCS % Recov.:	105	105	105	105

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120
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**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.

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

SEQUOIA ANALYTICAL, #1271

Kenneth L. Wimer  
Project Manager



GTEL (Wichita)  
4211 May Ave.  
Wichita, KS 67209  
Attention: Justin Ward

Client Project ID: **Chevron #9-0006**  
Matrix: **Liquid**

QC Sample Group: 5121453-457

Reported: **Jan 8, 1996**

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122395	GC122395	GC122395	GC122395
	802002A	802002A	802002A	802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	N. Beaman	N. Beaman	N. Beaman	N. Beaman
MS/MSD #:	5121446	5121446	5121446	5121446
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/23/95	12/23/95	12/23/95	12/23/95
Analyzed Date:	12/23/95	12/23/95	12/23/95	12/23/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	22	21	23	67
MS % Recovery:	110	105	115	112
Dup. Result:	19	18	19	55
MSD % Recov.:	95	90	95	92
RPD:	15	15	19	20
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	1LCS122395	1LCS122395	1LCS122395	1LCS122395
Prepared Date:	12/23/95	12/23/95	12/23/95	12/23/95
Analyzed Date:	12/23/95	12/23/95	12/23/95	12/23/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	22	22	22	65
LCS % Recov.:	110	110	110	108

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120
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SEQUOIA ANALYTICAL, #1271

Kenneth L. Wilmer  
Project Manager

**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.

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