

ENVIRONMENTAL  
PROTECTION

97 JUL 28 PM 6: 23

Chevron



**Chevron**

**Chevron Products Company**

6001 Bollinger Canyon Rd, Bldg L

PO Box 5004

San Ramon, CA 94583-0804

**Site Assessment & Remediation**

Phone (510) 842-9500

Fax (510) 842-8370

July 23, 1997

Ms. Amy Leech  
Alameda County Health Care Services  
1131 Harbor Way Parkway, Suite 250  
Alameda, California 94502-6577

ST101546  
JMS

Re: Chevron Service Station 9-2384  
15526 Hesperian Blvd., San Lorenzo, CA

Dear Ms. Leech,

Please find attached the 1st quarter 1997 groundwater monitoring and sampling report prepared by Blaine Tech Services Inc. dated May 21st, 1997. This report presents the results of the sampling event performed on March 31st, 1997.

The groundwater samples collected by Blaine Tech. were analyzed for the presence of TPHG and BTEX constituents as well as MTBE. The results obtained during this sampling event were consistent with historical data seen from previous sampling events at this site.

Chevron will continue with the current monitoring schedule (Semi-annual) in place for this site. If you have any questions or comments regarding this site, please call. I can be reached by phone at (510) 842-9449 or by fax at (510) 842-8370.

Sincerely,

Tammy L Hodge  
Groundwater Coordinator  
Site Assessment and Remediation

cc:

- \* Mr. Andy On, Insta-Lube  
736 West MacArther Blvd., Oakland CA
- \* Ms. Bette Owen, Chevron Property Development
- \* Chevron File 9-2384



**BLAINE**  
TECH SERVICES INC.



1680 ROGERS AVENUE  
SAN JOSE, CALIFORNIA 95112  
(408) 573-7771 FAX  
(408) 573-0555 PHONE

May 21, 1997

Tammy Hodge  
Chevron U.S.A. Products Company  
P.O. Box 6004  
San Ramon, CA 94583-0904

**1st Quarter 1997 Monitoring at 9-2384**

First Quarter 1997 Groundwater Monitoring at  
Chevron Service Station Number 9-2384  
15526 Hesperian Blvd.  
San Lorenzo, CA

Monitoring Performed on March 31, 1997

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**Groundwater Sampling Report 970331-C-2**

This report covers the routine quarterly monitoring of groundwater wells at this Chevron facility. Blaine Tech Services, Inc.'s work at the site includes inspection, gauging, evacuation, purgewater containment, sample collection and sample handling in accordance with standard procedures that conform to Regional Water Quality Control Board requirements.

Routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated volume of a three-case volume purge, elapsed evacuation time, total volume of water removed, and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater is, likewise, collected and transported to McKittrick Waste Treatment Site for disposal.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table

also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix**.

At a minimum, Blaine Tech Services, Inc. field personnel are certified upon completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

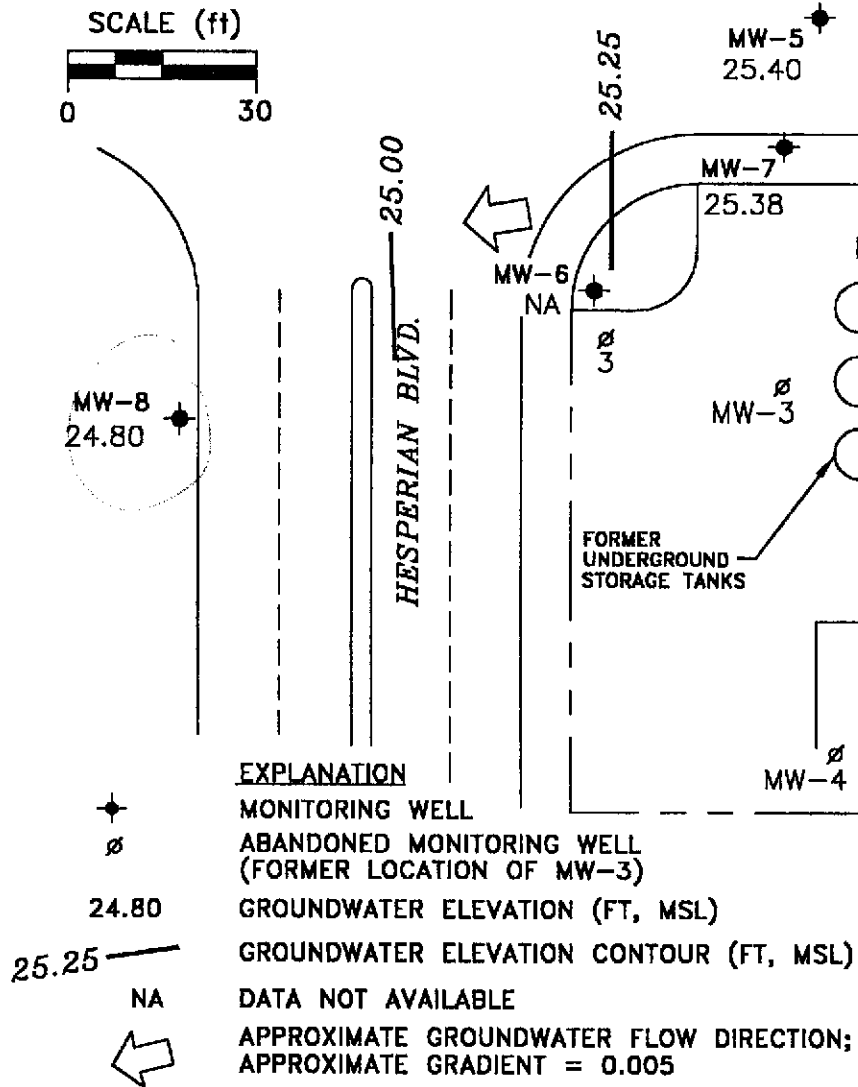
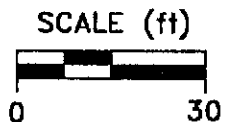
A handwritten signature in black ink, appearing to read "Francis Thie", written in a cursive style.

Francis Thie  
Vice President

FPT/cg

attachments: Professional Engineering Appendix  
Cumulative Table of Well Data and Analytical Results  
Analytical Appendix  
Field Data Sheets

# **Professional Engineering Appendix**



**EXPLANATION**

- ◆ MONITORING WELL
- ∅ ABANDONED MONITORING WELL (FORMER LOCATION OF MW-3)
- 24.80 GROUNDWATER ELEVATION (FT, MSL)
- 25.25 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- NA DATA NOT AVAILABLE
- ← APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.005



Base map from Cambria Environmental Technology, Inc.

PREPARED BY

**RRM**  
engineering contracting firm

**Chevron Station 9-2384**  
15526 Hesperian Boulevard  
San Lorenzo, California

**GROUNDWATER ELEVATION CONTOUR MAP,**  
MARCH 31, 1997

FIGURE:  
**1**  
PROJECT:  
DAC04

## Cumulative Table of Well Data and Analytical Results

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	Xylene	MTBE
<b>MW-1</b>										
06/04/92	35.64	22.52	13.12	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/30/92	35.64	21.82	13.82	--	--	--	--	--	--	--
08/25/92	35.64	21.44	14.20	--	--	--	--	--	--	--
09/23/92	35.64	21.05	14.59	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/29/92	35.64	21.36	14.28	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/19/93	35.64	24.74	10.90	--	<50	<0.5	<0.5	<0.5	<1.5	--
07/02/93	35.65	24.24	11.41	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/22/93	35.65	22.88	12.77	--	<50	0.9	0.9	<0.5	<1.5	--
10/01/93	35.65	22.72	12.93	--	--	--	--	--	--	--
03/10/94	35.65	23.52	12.13	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/12/94	35.65	23.34	12.31	--	--	--	--	--	--	--
06/17/94	35.65	23.14	12.51	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/01/94	35.65	22.28	13.37	--	<50	<0.5	<0.5	<0.5	<0.5	--
11/28/94	35.65	22.35	13.30	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/14/95	35.65	25.22	10.43	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/28/95	--	--	--	Destroyed	--	--	--	--	--	--
<b>MW-2</b>										
06/04/92	35.85	22.37	13.48	--	6700	910	17	210	30	--
07/30/92	35.85	21.68	14.17	--	--	--	--	--	--	--
08/25/92	35.85	21.29	14.56	--	--	--	--	--	--	--
09/23/92	35.85	20.90	14.95	--	1500	110	1.2	81	<0.5	--
12/29/92	35.85	21.24	14.61	--	1200	51	1.1	27	<0.5	--
03/19/93	35.85	24.61	11.24	--	750	37	1.0	34	1.6	--
07/02/93	35.86	24.10	11.76	--	2100	45	1.4	87	4.8	--
09/22/93	35.86	22.74	13.12	--	880	23	2.8	38	<1.5	--
10/01/93	35.86	22.56	13.30	--	--	--	--	--	--	--
03/10/94	35.86	23.43	12.43	--	230	6.9	1.9	12	0.6	--
04/12/94	35.86	23.24	12.62	--	--	--	--	--	--	--
06/17/94	35.86	23.02	12.84	--	330	1.6	<0.5	3.9	2.5	--
09/01/94	35.86	22.19	13.67	--	400	3.0	2.0	6.4	<0.5	--
11/28/94	35.86	22.26	13.60	--	210	0.56	<0.5	1.1	<0.5	--
03/14/95	35.86	25.17	10.69	--	390	<0.5	<0.5	2.7	<0.5	--
06/28/95	--	--	--	Destroyed	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

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	Xylene	MTBE
<b>MW-3</b>										
06/04/92	35.42	22.30	13.12	--	460	12	0.8	5.8	14	--
07/30/92	35.42	21.61	13.81	--	--	--	--	--	--	--
08/25/92	35.42	21.22	14.20	--	--	--	--	--	--	--
09/23/92	35.42	20.84	14.58	--	1100	62	1.5	110	4.0	--
12/29/92	35.42	21.20	14.22	--	450	21	0.7	12	3.0	--
03/19/93	35.42	24.55	10.87	--	1200	67	1.3	96	5.5	--
07/02/93	35.43	24.06	11.37	--	610	73	0.5	42	<1.5	--
09/22/93	35.43	22.72	12.71	--	400	<0.5	0.6	2.7	<1.5	--
10/04/93	35.43	22.55	12.88	--	--	--	--	--	--	--
03/10/94	35.43	23.35	12.08	--	65	1.6	1.3	1.3	1.1	--
04/12/94	35.43	23.18	12.25	--	--	--	--	--	--	--
06/17/94	35.43	22.90	12.53	--	160	9.2	<0.5	2.9	2.7	--
09/01/94	35.43	22.15	13.28	--	190	3.2	1.1	3.1	6.5	--
11/28/94	35.43	22.23	13.20	--	51	<0.5	<0.5	<0.5	<0.5	--
03/14/95	35.43	25.09	10.34	--	1100	18	<2.5	89	<2.5	--
06/28/95	--	--	--	Destroyed	--	--	--	--	--	--
<b>MW-4</b>										
07/02/93	35.73	23.96	11.77	--	80	<0.5	0.6	<0.5	<1.5	--
09/22/93	35.73	--	--	--	--	--	--	--	--	--
10/01/93	35.73	22.61	13.12	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/10/94	35.73	--	--	--	--	--	--	--	--	--
04/12/94	35.73	23.11	12.62	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/17/94	35.73	22.90	12.83	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/01/94	35.73	22.05	13.68	--	<50	<0.5	<0.5	<0.5	<0.5	--
11/28/94	35.73	22.15	13.58	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/14/95	35.73	24.83	10.90	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/28/95	--	--	--	Destroyed	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

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	Xylene	MTBE
<b>MW-5</b>										
07/02/93	35.50	24.08	11.42	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/22/93	35.50	--	--	--	--	--	--	--	--	--
10/01/93	35.50	--	--	--	--	--	--	--	--	--
03/10/94	35.50	--	--	--	--	--	--	--	--	--
04/12/94	35.50	23.25	12.25	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/17/94	35.50	23.02	12.48	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/01/94	35.50	22.17	13.33	--	<50	<0.5	<0.5	<0.5	<0.5	--
11/28/94	35.50	22.28	13.22	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/14/95	35.50	25.18	10.32	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/28/95	35.50	25.10	10.40	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/95	35.50	23.47	12.03	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	35.50	23.13	12.37	--	<50	<0.5	<0.5	<0.5	<0.5	--
02/29/96	35.50	26.06	9.44	Sampled annually	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/03/96	35.50	--	--	--	--	--	--	--	--	<2.5
03/31/97	35.50	25.40	10.10	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
<b>MW-6</b>										
07/02/93	36.01	23.94	12.07	--	14,000	330	28	980	580	--
09/22/93	36.01	--	--	--	--	--	--	--	--	--
10/01/93	36.01	23.30	12.71	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/10/94	36.01	--	--	--	--	--	--	--	--	--
04/12/94	36.01	23.11	12.90	--	3400	32	<0.5	0.7	67	--
06/17/94	36.01	22.80	13.21	--	2200	16	<0.5	30	17	--
09/01/94	36.01	22.03	13.98	--	4100	62	3.9	93	53	--
11/28/94	36.01	22.15	13.86	--	1400	10	<1.0	18	9.8	--
03/14/95	36.01	24.99	11.02	--	4200	12	<10	92	39	--
06/28/95	36.01	24.89	11.12	--	4100	52	<5.0	<5.0	18	--
09/25/95	36.01	23.34	12.67	--	2500	<5.0	<5.0	25	25	--
01/04/96	36.01	21.85	14.16	--	4800	5.7	<5.0	66	53	60
02/29/96	36.01	24.47	11.54	Sampled biannually	2100	<0.5	<0.5	11	9.4	<2.5
09/03/96	36.01	--	--	Dry	--	--	--	--	--	--
03/31/97	36.01	23.86	12.15	Insufficient water	--	--	--	--	--	--
05/08/97	36.01	22.96	13.05	--	2800	<5.0	<5.0	29	17	<25



## Cumulative Table of Well Data and Analytical Results

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	Xylene	MTBE
<b>MW-7</b>										
09/25/95	35.50	23.45	12.05	--	1400	<2.5	<2.5	<2.5	<2.5	--
12/19/95	35.50	23.17	12.33	--	2100	<5.0	<5.0	<5.0	<5.0	<25
02/29/96	35.50	26.00	9.50	Sampled biannually	380	<0.5	<0.5	<0.5	<0.5	<2.5
09/03/96	35.50	23.72	11.78	--	2700	<5.0	<5.0	<5.0	<5.0	<25
03/31/97	35.50	25.38	10.12	--	200	<0.5	0.66	<0.5	<0.5	<2.5
<b>MW-8</b>										
09/25/95	35.84	22.92	12.92	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	35.84	22.48	13.36	--	<50	<0.5	<0.5	<0.5	<0.5	91
02/29/96	35.84	25.24	10.60	Sampled biannually	<50	<0.5	<0.5	<0.5	<0.5	76
09/03/96	35.84	23.23	12.61	--	<50	<0.5	<0.5	<0.5	<0.5	45
03/31/97	35.84	24.80	11.04	--	<50	<0.5	<0.5	<0.5	<0.5	31

## Cumulative Table of Well Data and Analytical Results

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	Xylene	MTBE
<b>TRIP BLANK</b>										
06/04/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/23/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/29/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/19/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
07/02/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/22/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/01/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/10/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/12/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/17/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/01/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
11/28/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/14/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/28/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
02/29/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/03/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/31/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994.  
 Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.

**ABBREVIATIONS:**

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl t-butyl ether

# Analytical Appendix



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-2384/970331-C2 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9704051-01	Sampled: 03/31/97 Received: 04/01/97 Analyzed: 04/04/97 Reported: 04/09/97
Attention: Fran Thie		

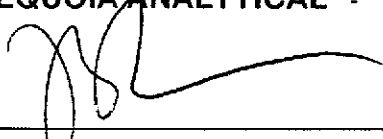
QC Batch Number: GC040497BTEX21A  
Instrument ID: GCHP21

**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	98

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

**SEQUOIA ANALYTICAL** - ELAP #1210




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Peggy Fenner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-2384/970331-C2 Sample Descript: MW-7 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9704051-02	Sampled: 03/31/97 Received: 04/01/97  Analyzed: 04/07/97 Reported: 04/09/97
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QC Batch Number: GC040797BTEX02A  
Instrument ID: GCHP2

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

Analyte	Detection Limit ug/L	Sample Results ug/L
<b>TPPH as Gas</b>	<b>50</b>	<b>200</b>
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
<b>Toluene</b>	<b>0.50</b>	<b>0.66</b>
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		>C8
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	89

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-2384/970331-C2 Sample Descript: MW-8 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9704051-03	Sampled: 03/31/97 Received: 04/01/97 Analyzed: 04/04/97 Reported: 04/09/97
--	---	---

QC Batch Number: GC040497BTEX21A  
Instrument ID: GCHP21

**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	31
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	108

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-2384/970331-C2 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9704051-04	Sampled: 03/31/97 Received: 04/01/97  Analyzed: 04/07/97 Reported: 04/09/97
Attention: Fran Thie		

QC Batch Number: GC040797BTEX02A  
Instrument ID: GCHP2

**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	73

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager





Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Fran Thie

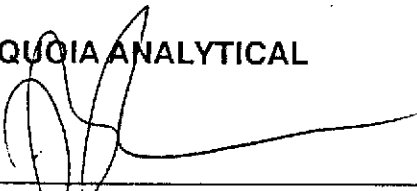
Client Proj. ID: Chevron 9-2384/970331-C2  
Lab Proj. ID: 9704051

Received: 04/01/97  
Reported: 04/09/97

### 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

  
Peggy Penner  
Project Manager







Blaine Tech Services, Inc.  
 1680 Rogers Avenue  
 San Jose, CA 95112  
 Attention: Fran Thie

Client Project ID: Chevron 9-2384/970331-C2  
 Matrix: Liquid

Work Order #: 9704051 -01, -03

Reported: Apr 14, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC040497BTEX21A	GC040497BTEX21A	GC040497BTEX21A	GC040497BTEX21A	GC040497BTEX21A
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:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9703E5403	9703E5403	9703E5403	9703E5403	9703E5403
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/4/97	4/4/97	4/4/97	4/4/97	4/4/97
Analyzed Date:	4/4/97	4/4/97	4/4/97	4/4/97	4/4/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.9	10	9.9	30	60
MS % Recovery:	99	100	99	100	100
Dup. Result:	9.8	9.7	9.7	29	60
MSD % Recov.:	98	97	97	97	100
RPD:	1.0	3.0	2.0	3.4	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK040497	BLK040497	BLK040497	BLK040497	BLK040497
Prepared Date:	4/4/97	4/4/97	4/4/97	4/4/97	4/4/97
Analyzed Date:	4/4/97	4/4/97	4/4/97	4/4/97	4/4/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10	11	11	34	67
LCS % Recov.:	100	110	110	113	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					

SEQUOIA ANALYTICAL

Peggy Penner  
 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

9704051.BLA <1>





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834

(415) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Chevron 9-2384/970331-C2  
Matrix: Liquid

Work Order #: 9704051-02, -04

Reported: Apr 14, 1997

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC040797BTEX02A	GC040797BTEX02A	GC040797BTEX02A	GC040797BTEX02A	GC040797BTEX02A
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. MirafTAB	A. MirafTAB	A. MirafTAB	A. MirafTAB	A. MirafTAB
MS/MSD #:	9703F1402	9703F1402	9703F1402	9703F1402	9703F1402
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/7/97	4/7/97	4/7/97	4/7/97	4/7/97
Analyzed Date:	4/7/97	4/7/97	4/7/97	4/7/97	4/7/97
Instrument I.D.#:	GCHP02	GCHP02	GCHP02	GCHP02	GCHP02
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.6	9.6	9.7	31	64
MS % Recovery:	96	96	97	103	107
Dup. Result:	9.3	9.3	9.4	30	60
MSD % Recov.:	93	93	94	100	100
RPD:	3.2	3.2	3.1	3.3	6.5
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK040797	BLK040797	BLK040797	BLK040797	BLK040797
Prepared Date:	4/7/97	4/7/97	4/7/97	4/7/97	4/7/97
Analyzed Date:	4/7/97	4/7/97	4/7/97	4/7/97	4/7/97
Instrument I.D.#:	GCHP02	GCHP02	GCHP02	GCHP02	GCHP02
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.6	9.4	9.5	30	64
LCS % Recov.:	96	94	95	100	107

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					

SEQUOIA ANALYTICAL

Reggy Penner  
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

9704051.BLA <2>



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

Chevron Facility Number 9-2384  
 Facility Address 15526 Hesperian Blvd., San Lorenzo  
 Consultant Project Number 970331-C2  
 Consultant Name Blaine Tech Services, Inc.  
 Address 1680 Rogers Ave., San Jose, CA 95112  
 Project Contact (Name) Fran Thie  
 (Phone) (408)573-0555 (Fax Number) (408)573-7771

Chevron Contact (Name) Tammy Hodge  
 (Phone) (510) 842-9449  
 Laboratory Name Sequoia  
 Laboratory Release Number 9021854  
 Samples Collected by (Name) Kevin Caslin  
 Collection Date 3-31-97  
 Signature [Signature]

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	Leak (Yes or No)	Analyses To Be Performed											DO NOT BILL FOR TB-LB  9704051 Remarks: 12 17			
								ETEX + TPH GAS (8020 + 8015) + MTBE	TPH Diesel (8015)	Oil and Greases (5520)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)							
MW-5	01	3	W		14:12	HCL	Y	X														
MW-7	02	3	W		14:34	HCL	Y	X														
MW-8	03	3	W		13:50	HCL	Y	X														
TB	04	2	W		14:00	HCL	Y	X														

Relinquished By (Signature) <u>[Signature]</u>	Organization BTS	Date/Time 4/1/97 1030	Received By (Signature) <u>[Signature]</u>	Organization SEQR	Date/Time 4/1/97 1030	Turn Around Time (Circle Choice)  24 Hrs. 48 Hrs. 5 Days <u>10 Days</u> As Contracted
Relinquished By (Signature) <u>[Signature]</u>	Organization SEQR	Date/Time 4/1/97 1200	Received By (Signature) <u>[Signature]</u>	Organization SEQR	Date/Time 4/1/97	
Relinquished By (Signature) <u>[Signature]</u>	Organization	Date/Time	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time 4-1-97 1217	



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-2384/970508-L1 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9705521-01	Sampled: 05/08/97 Received: 05/09/97  Analyzed: 05/13/97 Reported: 05/14/97
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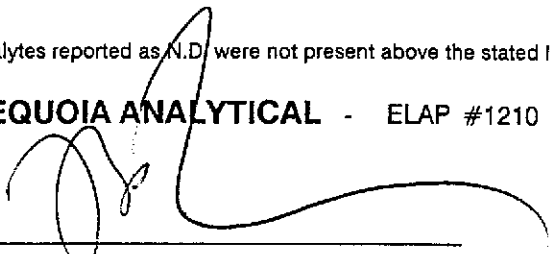
QC Batch Number: GC051397BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	2800
Methyl t-Butyl Ether	25	N.D.
Benzene	5.0	N.D.
Toluene	5.0	N.D.
Ethyl Benzene	5.0	29
Xylenes (Total)	5.0	17
Chromatogram Pattern: Weathered Gas		C8-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	84

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Chevron 9-2384 / 970508-L1  
Matrix: Liquid

Work Order #: 9705521 -01

Reported: May 15, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC051397BTEX02A	GC051397BTEX02A	GC051397BTEX02A	GC051397BTEX02A	GC051397BTEX02A
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. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	970549702	970549702	970549702	970549702	970549702
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97
Analyzed Date:	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L

Result:	8.5	8.4	8.6	27	66
MS % Recovery:	85	84	86	90	110

Dup. Result:	8.8	8.7	8.9	28	69
MSD % Recov.:	88	87	89	93	115

RPD:	3.5	3.5	3.4	3.6	4.4
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK051397	BLK051397	BLK051397	BLK051397	BLK051397
Prepared Date:	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97
Analyzed Date:	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.1	8.0	8.2	26	63
LCS % Recov.:	81	80	82	87	105

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					

SEQUOIA ANALYTICAL

Peggy Fenner  
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

9705521.BLA <1>





Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Fran Thie

Client Proj. ID: Chevron 9-2384/970508-L1  
Lab Proj. ID: 9705521

Received: 05/09/97  
Reported: 05/14/97

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 3 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPPH Note: Sample 9705521-01 was diluted 10-fold.

SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager



Fax copy of Lab Report and COC to Chevron Contact:  Yes  No

# Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>9-2384</u> Facility Address <u>15526 Hesperian Blvd., San Lorenzo</u>	Chevron Contact (Name) <u>Tammy Hodge</u> (Phone) <u>(510) 842-9449</u>
	Consultant Project Number <u>970508-41</u> Consultant Name <u>Blaine Tech Services, Inc.</u> Address <u>1680 Rogers Ave., San Jose, CA 95112</u>	Laboratory Name <u>Sequoia</u> Laboratory Release Number <u>9021854</u>
	Project Contact (Name) <u>Fran Thie</u> (Phone) <u>(408)573-0555</u> (Fax Number) <u>(408)573-7771</u>	Samples Collected by (Name) <u>LAD GILCHRIST</u> Collection Date <u>5-8-97</u> Signature <u>[Signature]</u>
	Analyses To Be Performed <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">9705521</span>	

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)	Analyses To Be Performed											Remarks						
								BTEX + TPH GAS (8020 + 8015) <i>MTBE</i>	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)										
MW-6	1	3	W		1235	HCL	YES	X																	

DO NOT BILL  
FOR TB-LB

MT 5 11 47

Analyzed By (Signature) <u>[Signature]</u>	Organization <u>BOS</u>	Date/Time <u>5/7/97 1050</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>JEQ</u>	Date/Time <u>5/7/97</u>	Turn Around Time (Circle Choice)  24 Hrs. 48 Hrs. 5 Days 10 Days <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">As Contracted</span>
Analyzed By (Signature) <u>[Signature]</u>	Organization <u>SR</u>	Date/Time <u>5/9/97</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>[Blank]</u>	Date/Time <u>[Blank]</u>	
Analyzed By (Signature) <u>[Signature]</u>	Organization <u>[Blank]</u>	Date/Time <u>[Blank]</u>	Received For Laboratory By (Signature) <u>[Signature]</u>	Organization <u>[Blank]</u>	Date/Time <u>5 9 97 1047</u>	

Fax copy of Lab Report and COC to Chevron Contact:  Yes  No

# Chain-of-Custody-Record

Chevron Facility Number 9-2384  
 Facility Address 15526 Hesperian Blvd., San Lorenzo  
 Consultant Project Number 970508-21  
 Consultant Name Blaine Tech Services, Inc.  
 Address 1680 Rogers Ave., San Jose, CA 95112  
 Project Contact (Name) Fran Thie  
 (Phone) (408) 573-0555 (Fax Number) (408) 573-7771

Chevron Contact (Name) Tammy Hodge  
 (Phone) (510) 842-9449  
 Laboratory Name Sequoia  
 Laboratory Release Number 9021854  
 Samples Collected by (Name) LAD GILCHRIST  
 Collection Date 5-8-97  
 Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Media S = Soil A = Air W = Water C = Charcoal	Type C = Grab C = Composite D = Discrete	Time	Sample Preservation	Leak (Yes or No)	Analyses To Be Performed										DO NOT BILL FOR TB-LB	Remarks		
								TEX + TPH GAS (8020 + 8015) <i>MTBE</i>	TPH Diesel (8015)	Oil and Grease (8020)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)						
MW-6		3	W		1235	HCL	YES	X													

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>BVS</u>	Date/Time <u>5/9/97</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>JEC</u>	Date/Time <u>5/9/97</u>
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)

- 24 Hrs.
- 48 Hrs.
- 5 Days
- 10 Days
- As Controlled

COC-1046/03 91/HCH





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron Burlingame/970508-J2 Sample Descript: TBW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9705529-01	Sampled: 05/08/97 Received: 05/09/97  Analyzed: 05/13/97 Reported: 05/14/97
Attention: Fran Thie		

QC Batch Number: GC051397BTEX02A  
Instrument ID: GCHP02

**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	77

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Renner  
Project Manager





Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Fran Thie

Client Proj. ID: Chevron Burlingame/970508-J2

Received: 05/09/97

Lab Proj. ID: 9705529

Reported: 05/14/97

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 3 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

  
Peggy Penner  
Project Manager





Blaine Tech Services, Inc. Client Project ID: Chevron Burlingame / 970508-J2  
 1680 Rogers Avenue Matrix: Liquid  
 San Jose, CA 95112  
 Attention: Fran Thie Work Order #: 9705529 -01 Reported: May 15, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC051397BTEX02A	GC051397BTEX02A	GC051397BTEX02A	GC051397BTEX02A	GC051397BTEX02A
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. MirafTAB	A. MirafTAB	A. MirafTAB	A. MirafTAB	A. MirafTAB
MS/MSD #:	970549702	970549702	970549702	970549702	970549702
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97
Analyzed Date:	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.5	8.4	8.6	27	66
MS % Recovery:	85	84	86	90	110
Dup. Result:	8.8	8.7	8.9	28	69
MSD % Recov.:	88	87	89	93	115
RPD:	3.5	3.5	3.4	3.6	4.4
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK051397	BLK051397	BLK051397	BLK051397	BLK051397
Prepared Date:	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97
Analyzed Date:	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.1	8.0	8.2	26	63
LCS % Recov.:	81	80	82	87	105

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					

SEQUOIA ANALYTICAL

Peggy Penner  
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

9705529.BLA <1>



# BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE  
SAN JOSE, CALIFORNIA 95112  
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## CONDUCT ANALYSIS TO DETECT

LAB SEQ DHS # \_\_\_\_\_

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

EPA  RWQCB REGION \_\_\_\_\_

LIA

OTHER

CHAIN OF CUSTODY  
970508-52

CLIENT Chw

SITE Coyote Pt. Marina  
Burlingame

C = COMPOSITE ALL CONTAINERS

X TPH-Ges / BTEX / MTBE\*

SPECIAL INSTRUCTIONS

4705529

SAMPLE I.D.	MATRIX		CONTAINERS		C = COMPOSITE ALL CONTAINERS	TPH-Ges / BTEX / MTBE*									ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #	
	S = SOIL	W = H2O	TOTAL																
TBW-1	5/8	1115	U	3		X									* Confirm	MTBE	by 8260		

MY 9 11 47

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN	
			<u>Matt James</u>		
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<del>Shirley</del>	<u>5/9/97</u>	<u>1050</u>	<u>Shirley</u>	<u>5/9/97</u>	<u>1050</u>
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<u>Shirley</u>	<u>5/9/97</u>	<u>1135</u>	<u>Mana Grulis</u>	<u>5/9/97</u>	<u>1147</u>
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<u>Shirley</u>	<u>5/9/97</u>	<u>1135</u>	<u>Mana Grulis</u>	<u>5/9/97</u>	<u>1147</u>
IA	DATE SENT	TIME SENT	COOLER #		

# **Field Data Sheets**



## CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970331-C2</u>	Station #: <u>9-2384</u>
Sampler: <u>K.C</u>	Date: <u>3-31-97</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u>   </u>
Total Well Depth: <u>20.33</u>	Depth to Water: <u>10.10</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:                      Bailer                      Sampling Method:                      Bailer  
    Disposable Bailer     Disposable Bailer   
    Middleburg    Extraction Port  
    Electric Submersible    Other: \_\_\_\_\_  
    Extraction Pump

Other: \_\_\_\_\_

<u>1.6</u>	x	<u>3</u>	=	<u>4.8</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>14:00</u>	<u>64.4</u>	<u>7.4</u>	<u>800</u>	<u>1.5</u>	
<u>14:02</u>	<u>64.6</u>	<u>7.4</u>	<u>800</u>	<u>3.0</u>	
<u>14:04</u>	<u>64.8</u>	<u>7.3</u>	<u>900</u>	<u>5.0</u>	

Did well dewater?    Yes        No        Gallons actually evacuated: 5.0

Sampling Time: 14:12                      Sampling Date: 3-31-97

Sample I.D.: MW-5                      Laboratory: (Sequoia) GTEL N. Creek Assoc. Labs

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D    Other: \_\_\_\_\_

Duplicate I.D.:                      Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

# CHEVRON WELL MONITORING DATA SHEET

Project #: <i>970331-CZ</i>	Station #: <i>9-2384</i>
Sampler: <i>KC</i>	Date: <i>3-31-97</i>
Well I.D.: <i>MW-6</i>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth: <i>1282</i>	Depth to Water: <i>1215</i>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC                  Grade	D.O. Meter (if req'd):                  YSI                  HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:                  Bailer Disposable Bailer Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method:                  Bailer Disposable Bailer Extraction Port Other: _____
---	--

_____	X	_____	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
					<i>Insufficient water level.</i>

Did well dewater?	Yes	No	Gallons actually evacuated:
Sampling Time: <i>MW-6</i>	Sampling Date:		
Sample I.D.:	Laboratory:    Sequoia    GTEL    N. Creek    Assoc. Labs		
Analyzed for:    TPH-G    BTEX    MTBE    TPH-D    Other:			
Duplicate I.D.:	Analyzed for:    TPH-G    BTEX    MTBE    TPH-D    Other:		
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:                  mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:                  mV



## CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970331-CZ</u>	Station #: <u>9-2384</u>
Sampler: <u>16.C</u>	Date: <u>3-31-97</u>
Well I.D.: <u>MW-7</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u>    </u>
Total Well Depth: <u>21.80</u>	Depth to Water: <u>10.12</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>FVO</u> Grade	D.O. Meter (if req'd):                      YSI                      HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:                      Bailer Disposable Bailer <input checked="" type="checkbox"/> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method:                      Bailer Disposable Bailer <input checked="" type="checkbox"/> Extraction Port Other: _____
---	--

<u>1.8</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>5.4</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>14:20</u>	<u>62.0</u>	<u>7.1</u>	<u>1000</u>	<u>1.5</u>	
<u>14:22</u>	<u>63.6</u>	<u>7.0</u>	<u>800</u>	<u>3.5</u>	
<u>14:<del>28</del><sup>29</sup></u>	<u>63.2</u>	<u>7.0</u>	<u>900</u>	<u>5.5</u>	

Did well dewater?    Yes <u>(No)</u>	Gallons actually evacuated: <u>5.5</u>
Sampling Time: <u>14:34</u>	Sampling Date: <u>3-31-97</u>
Sample I.D.: <u>MW-7</u>	Laboratory: <u>Squoda</u> GTEL N. Creek Assoc. Labs
Analyzed for: <u>TPH-G</u> <u>BTEX</u> MTBE    TPH-D    Other:	
Duplicate I.D.:	Analyzed for:    TPH-G    BTEX    MTBE    TPH-D    Other:
D.O. (if req'd):	Pre-purge: <u>    </u> <sup>mg/l</sup> Post-purge: <u>    </u> <sup>mg/l</sup>
O.R.P. (if req'd):	Pre-purge: <u>    </u> <sup>mV</sup> Post-purge: <u>    </u> <sup>mV</sup>

## CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970331-CZ</u>	Station #: <u>9-2384</u>
Sampler: <u>K.C</u>	Date: <u>3-21-97</u>
Well I.D.: <u>MW-8</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>20.41</u>	Depth to Water: <u>11.04</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:	Sampling Method:
<input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	<input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port Other: _____

<u>1.5</u>	x	<u>3</u>	=	<u>4.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
13:38	66.2	7.4	1400	1.5	
13:39	66.0	7.6	1300	3.0	
13:42	65.8	7.6	1300	4.5	

Did well dewater? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>4.5</u>
Sampling Time: <u>13:50</u>	Sampling Date: <u>3-21-97</u>
Sample I.D.: <u>MW-8</u>	Laboratory: <u>Sequoia</u> GTEL N. Creek Assoc. Labs
Analyzed for: <u>TPH-G</u> <u>BTEX</u> MTBE TPH-D Other:	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D Other:
D.O. (if req'd):	Pre-purge: _____ mg/L Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV Post-purge: _____ mV

WELL DEVELOPMENT DATA SHEET

Project #: 970508-L1	Client: CHEV 9-2384
Developer: LAD	Date Developed: 5-8-97
Well I.D.: MW-6	Well Diameter: (circle one) ② 3 4 6
Total Well Depth: Before 12.65 After 23.88	Depth to Water: Before ' After
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):

$$VCF = (d^2/4) \times \pi / 231$$

Where:

- d = in/foot
- d = diameter (in.)
- $\pi = 3.1416$
- 231 = in<sup>3</sup>/gal

Well dia.	VCF
2"	0.16
3"	0.37
4"	0.48
6"	1.47
10"	4.08
12"	6.17

\_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_ gallons

1 Case Volume                      Specified Volumes

Purging Device: Bailer                       Electric Submersible   
 Middleburg                                       Suction Pump

Type of Installed Pump \_\_\_\_\_  
 Other equipment used VACUUM TRUCK / AUGER

TIME	TEMP. (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
800						AUGERED INTO SAND, BUT IT FALLS OUT OF AUGER (THE SAND IS FILTER PACK SAND, WHICH MEANS THAT THE CASING OR SCREEN HAS BEEN DAMAGED/BROKEN)
830						SERVICE STATION SYS'S WITH 1" STINGER REMOVED 55 GAL'S WATER AND APPROX 3 (5 GAL) BUCKETS OF SAND
233 950						SAMPLED FOR (TPH-G, BTEX MTBE) FILTER PACK SAND
1000						CONTINUED REMOVING SAND & WATER WITH VACUUM TRUCK
						WELL RECHARGES / TOTAL DEPTH @ 22.50'
1200						REMOVED APPROX. 200 GAL'S OF WATER / (6 (5 GAL) BUCKETS AT (13'-15') THERE IS A SPOT IN THE CASING OF SAND WHERE THE 1" PVC HITS AND ALMOST GETS STUCK
Did Well Dewater? NO If, yes, note above.      Gallons Actually Evacuated: 250						
1230						TD = 23.88 / REMOVED A TOTAL OF 250 GAL'S

OK 13

## CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970508-L1</u>	Station #: <u>9-2384</u>
Sampler: <u>LAD</u>	Date: <u>5-8-97</u>
Well I.D.: <u>7 MW-6</u>	Well Diameter: <u>2</u> 3 4 6 8 <u>    </u>
Total Well Depth: <u>23.88</u>	Depth to Water: <u>13.05</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd):                      YSI                      HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:                      Bailer                      Sampling Method:                      Bailer

Disposable Bailer                      Disposable Bailer ~~X~~

Middleburg                                      Extraction Port

Electric Submersible                      Other: \_\_\_\_\_

Extraction Pump

Other: VACUUM TRUCK

_____	X	_____	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1233</u>	<u>63.2</u>	<u>7.2</u>	<u>800</u>	<u>250</u>	<u>SAMPLED AFTER</u>
					<u>RE-DEVELOPEMENT</u>

Did well dewater?    Yes    No    Gallons actually evacuated: 250

Sampling Time: 1235    Sampling Date: 5-8-97

Sample I.D.: MW-6    Laboratory: Sequoia GTEL N. Creek Assoc. Labs

Analyzed for: TPH-G BTEX MTBE TPH-D    Other: \_\_\_\_\_

Duplicate I.D.:                      Analyzed for: TPH-G BTEX MTBE TPH-D    Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV