

**BLAINE**  
TECH SERVICES INC.



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

ENVIRONMENTAL  
PROTECTION

97 MAR 31 PM 3:48

March 20, 1997

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

**1st Quarter 1997 Monitoring at 9-1723**

First Quarter 1997 Groundwater Monitoring at  
Chevron Service Station Number 9-1723  
9757 San Leandro Street  
Oakland, CA

Monitoring Performed on February 20, 1997

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**Groundwater Sampling Report 970220-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,

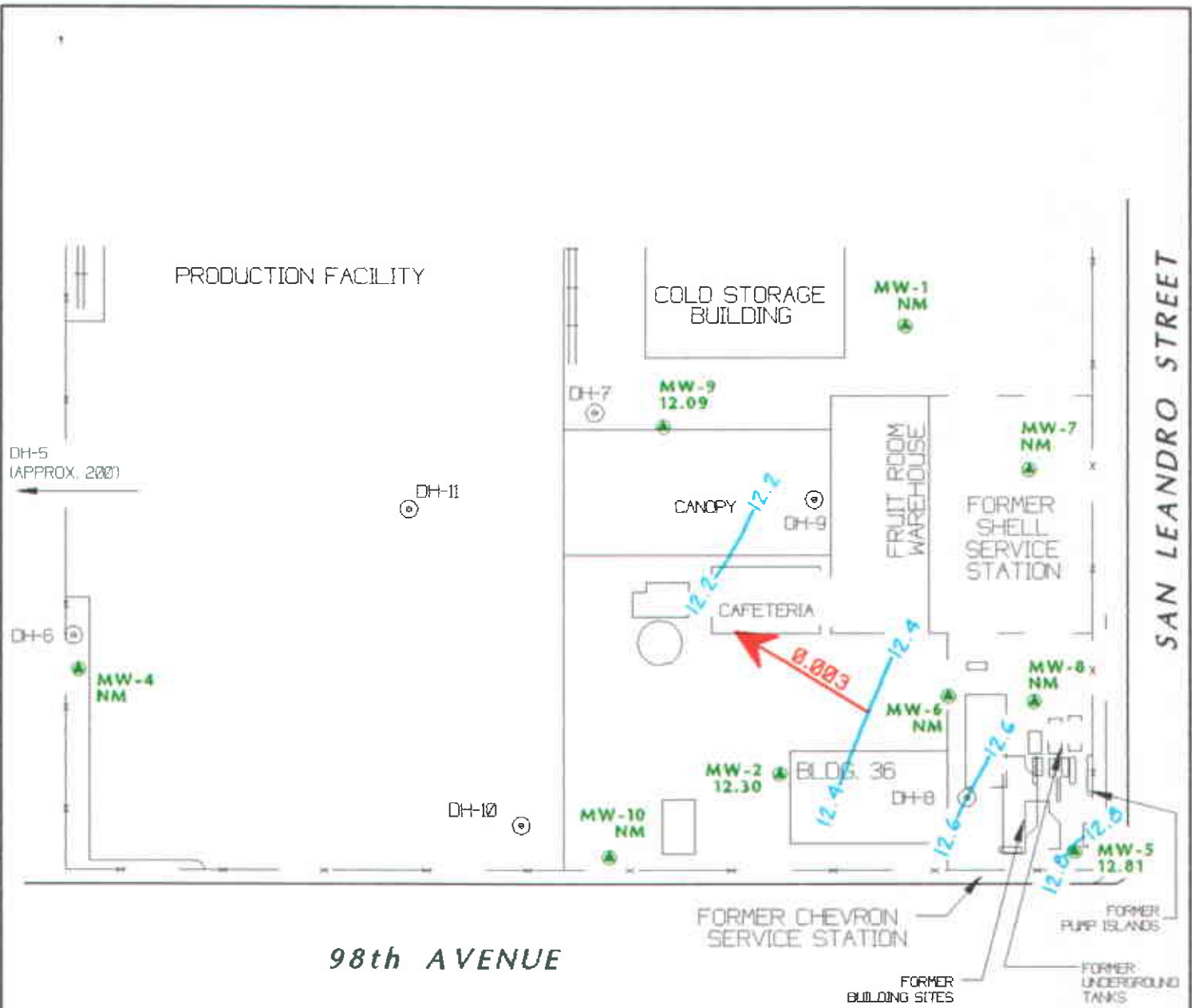
A handwritten signature in cursive script, appearing to read "Francis Thie".

Francis Thie  
Vice President

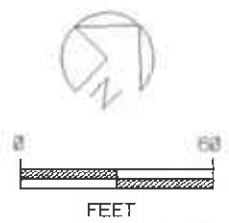
FPT/cg

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

# **Professional Engineering Appendix**



EXPLANATION	
	MONITORING WELL LOCATION AND WELL NUMBER
12.30	GROUND-WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
NM	NOT MEASURED
	GROUND-WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
	APPROXIMATE DIRECTION OF GROUND-WATER FLOW. GRADIENT INDICATED IN FEET / FEET



TITLE : GROUND-WATER ELEVATION CONTOUR MAP - FEBRUARY 20, 1997

LOCATION : CHEVRON SERVICE STATION No.: 9-1723 9757 SAN LEANDRO STREET, OAKLAND, CALIFORNIA

SOURCE : CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.



**GEOCONSULTANTS, INC**  
 SAN JOSE, CALIFORNIA  
 Project No. G756-09

Drawing No. CHEVRON-CH22772-4522057

# **Table of Field Data and Analytical Results**

## 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	Lead	MTBE
<b>MW-1</b>											
11/02/93	20.92	10.68	10.24	--	--	--	--	--	--	--	--
02/10/94	20.92	--	--	--	--	--	--	--	--	--	--
05/12/94	20.92	--	--	--	--	--	--	--	--	--	--
08/26/94	20.92	--	--	--	--	--	--	--	--	--	--

No longer monitored or sampled

### MW-2

11/02/93	21.31	10.83	10.48	--	--	--	--	--	--	--	--
02/10/94	21.31	--	--	--	--	--	--	--	--	--	--
05/12/94	21.31	11.94	9.37	--	390	6.8	2.0	6.3	14	--	--
08/26/94	21.31	--	--	Sampled Biannually	--	--	--	--	--	--	--
02/01/95	21.31	13.76	7.55	--	78	10	1.2	<0.5	0.51	--	--
08/02/95	21.31	11.53	9.78	--	100	3.5	<0.5	2.6	4.1	--	--
01/31/96	21.31	14.38	6.93	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
08/01/96	21.31	11.49	9.82	--	73	<0.5	<0.5	<0.5	<0.5	--	610
12/17/96	21.31	12.75	8.56	--	--	--	--	--	--	--	--
02/20/97	21.31	12.30	9.01	--	280	6.7	0.56	1.5	2.9	--	11

### MW-4

11/02/93	--	--	10.23	--	--	--	--	--	--	--	--
02/10/94	--	--	--	--	--	--	--	--	--	--	--
05/12/94	--	--	--	--	--	--	--	--	--	--	--
08/26/94	--	--	--	--	--	--	--	--	--	--	--

No longer monitored or sampled

## 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	Lead	MTBE
<b>MW-5</b>											
11/02/93	21.84	11.15	10.69	--	790	43	3.4	22	12	<400	--
02/10/94	21.84	13.10	8.74	--	1400	52	3.0	50	40	--	--
05/12/94	21.84	12.40	9.44	--	1800	87	6.2	77	66	--	--
08/26/94	21.84	--	--	--	--	--	--	--	--	--	--
11/11/94	21.84	13.50	8.34	--	380	18	<1.0	18	11	--	--
02/01/95	21.84	14.32	7.52	--	570	36	0.59	21	11	--	--
05/18/95	21.84	12.87	8.97	--	590	29	1.0	16	9.8	--	--
08/02/95	21.84	11.98	9.86	--	210	9.2	<0.5	4.0	1.2	--	--
11/01/95	21.84	11.58	10.26	--	210	5.6	<0.5	1.9	<0.5	--	<2.5
01/31/96	21.84	14.72	7.12	--	1200	50	<5.0	19	29	--	<25
05/16/96	21.84	14.22	7.62	--	440	14	<0.5	17	8.6	--	11
08/01/96	21.84	11.86	9.98	--	58	1.4	<0.5	<0.5	<0.5	--	2.5
12/17/96	21.84	13.13	8.71	--	300	9.7	<0.5	11	6.3	--	6.9
02/20/97	21.84	12.81	9.03	--	350	6.7	<0.5	4.3	1.9	--	5.0
<b>MW-6</b>											
11/02/93	21.71	10.93	10.78	--	300	19	1.8	2.5	5.0	<400	--
02/10/94	21.71	12.86	8.85	--	200	10	0.9	2.0	4.0	--	--
05/12/94	21.71	12.08	9.63	--	210	10	1.1	1.2	3.1	--	--
08/26/94	21.71	10.82	10.89	--	310	16	1.4	2.3	7.1	--	--
11/11/94	21.71	13.25	8.46	--	<50	1.3	<0.5	<0.5	1.0	--	--
02/01/95	21.71	14.02	7.69	--	<50	1.9	<0.5	<0.5	0.51	--	--
05/18/95	21.71	12.43	9.28	--	<50	8.2	<0.5	<0.5	<0.5	--	--
08/02/95	21.71	11.64	10.07	--	<50	2.3	<0.5	<0.5	<0.5	--	--
11/01/95	21.71	11.31	10.40	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
01/31/96	21.71	13.63	8.08	--	<50	0.98	<0.5	<0.5	<0.5	--	<2.5
05/16/96	21.71	13.91	7.80	--	<50	1.6	<0.5	<0.5	<0.5	--	<2.5
08/01/96	21.71	11.56	10.15	--	<50	0.82	<0.5	<0.5	<0.5	--	<2.5
12/17/96	21.71	13.26	8.45	--	63	2.6	<0.5	<0.5	<0.5	--	<2.5
02/20/97	21.71	--	--	Inaccessible	--	--	--	--	--	--	--

## 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	Lead	MTBE
<b>MW-7</b>											
11/02/93	20.95	10.88	10.07	--	--	--	--	--	--	--	--
02/10/94	20.95	--	--	--	--	--	--	--	--	--	--
05/12/94	20.95	--	--	--	--	--	--	--	--	--	--
08/26/94	20.95	--	--	--	--	--	--	--	--	--	--
No longer monitored or sampled											
<b>MW-8</b>											
11/02/93	21.84	11.02	10.82	--	15,000	2000	440	420	1400	<400	--
02/10/94	21.84	12.97	8.87	--	6500	1200	380	250	7900	--	--
05/12/94	21.84	12.19	9.65	--	30,000	1400	2900	800	3800	--	--
08/26/94	21.84	10.90	10.94	--	17,000	720	200	330	930	--	--
11/11/94	21.84	13.38	8.46	--	6800	250	170	190	650	--	--
02/01/95	21.84	14.36	7.48	--	330	68	2.8	2.7	4.3	--	--
05/18/95	21.84	12.54	9.30	--	540	120	12	11	23	--	--
08/02/95	21.84	11.73	10.11	--	1100	150	9.7	20	40	--	--
11/01/95	21.84	11.36	10.48	--	1700	120	15	16	39	--	<5.0
01/31/96	21.84	14.64	7.20	--	57	5.3	<0.5	<0.5	<0.5	--	<2.5
05/16/96	21.84	13.99	7.85	--	2100	260	43	56	130	--	64
08/01/96	21.84	11.59	10.25	--	1100	45	0.92	8.9	25	--	7.4
12/17/96	21.84	12.95	8.89	--	2000	280	30	51	88	--	22
02/20/97	21.84	--	--	Inaccessible	--	--	--	--	--	--	--



## 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	Lead	MTBE
<b>MW-9</b>											
11/02/93	20.55	10.53	10.02	--	--	--	--	--	--	--	--
02/10/94	20.55	--	--	--	--	--	--	--	--	--	--
05/12/94	20.55	11.60	8.95	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
08/26/94	20.55	--	--	Sampled Biannually	--	--	--	--	--	--	--
02/01/95	20.55	13.35	7.20	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
08/02/95	20.55	11.22	9.33	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/31/96	20.55	14.10	6.45	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
08/01/96	20.55	11.20	9.35	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
12/17/96	20.55	12.29	8.26	--	--	--	--	--	--	--	--
02/20/97	20.55	12.09	8.46	--	55*	1.1	<0.5	<0.5	<0.5	--	<2.5

### MW-10

11/02/93	21.25	10.93	10.32	--	--	--	--	--	--	--	--
02/10/94	21.25	--	--	--	--	--	--	--	--	--	--
05/12/94	21.25	--	--	--	--	--	--	--	--	--	--
08/26/94	21.25	--	--	--	--	--	--	--	--	--	--

No longer monitored or sampled

\* Chromatogram pattern indicates an unidentified hydrocarbon.

## 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	Lead	MTBE
<b>TRIP BLANK</b>											
02/10/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/12/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
08/26/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/11/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
02/01/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/18/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
08/02/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/01/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/31/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
05/16/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
08/01/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
12/17/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
02/20/97	--	--	--	--	<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 14, 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 9-1723/970220-C2 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702B64-01	Sampled: 02/20/97 Received: 02/21/97  Analyzed: 02/26/97 Reported: 03/04/97
Attention: Fran Thie		

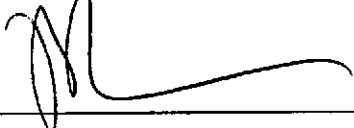
QC Batch Number: GC022697BTEX01A  
Instrument ID: GCHP01

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	280
Methyl t-Butyl Ether	2.5	11
Benzene	0.50	6.7
Toluene	0.50	0.56
Ethyl Benzene	0.50	1.5
Xylenes (Total)	0.50	2.9
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	118

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 9-1723/970220-C2 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702B64-02	Sampled: 02/20/97 Received: 02/21/97  Analyzed: 02/27/97 Reported: 03/04/97
Attention: Fran Thie		

QC Batch Number: GC022797BTEX01A  
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	350
Methyl t-Butyl Ether	2.5	5.0
Benzene	0.50	6.7
Toluene	0.50	N.D.
Ethyl Benzene	0.50	4.3
Xylenes (Total)	0.50	1.9
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	121

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 9-1723/970220-C2 Sample Descript: MW-9 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702B64-03	Sampled: 02/20/97 Received: 02/21/97  Analyzed: 02/27/97 Reported: 03/04/97
Attention: Fran Thie		

QC Batch Number: GC022797BTEX01A  
Instrument ID: GCHP1

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	55
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	1.1
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C8
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	131 Q

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Pernner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1723/970220-C2 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702B64-04	Sampled: 02/20/97 Received: 02/21/97  Analyzed: 02/26/97 Reported: 03/04/97
Attention: Fran Thie		

QC Batch Number: GC022697BTEX06A  
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	86

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





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

Client Proj. ID: Chevron 9-1723/970220-C2

Received: 02/21/97

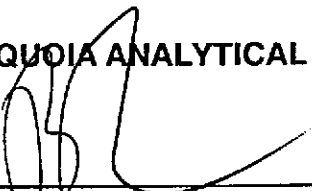
Lab Proj. ID: 9702B64

Reported: 03/04/97

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 5 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 9-1723/970220-C2  
Matrix: Liquid

Work Order #: 9702B64 -01

Reported: Mar 11, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022697BTEX01A	GC022697BTEX01A	GC022697BTEX01A	GC022697BTEX01A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970287103	970287103	970287103	970287103
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/26/97	2/26/97	2/26/97	2/26/97
Analyzed Date:	2/26/97	2/26/97	2/26/97	2/26/97
Instrument I.D.#:	GCHP01	GCHP01	GCHP01	GCHP01
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.9	9.5	9.7	28
MS % Recovery:	99	95	97	93
Dup. Result:	9.5	9.2	9.4	28
MSD % Recov.:	95	92	94	93
RPD:	4.1	3.2	3.1	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK022697	BLK022697	BLK022697	BLK022697
Prepared Date:	2/26/97	2/26/97	2/26/97	2/26/97
Analyzed Date:	2/26/97	2/26/97	2/26/97	2/26/97
Instrument I.D.#:	GCHP01	GCHP01	GCHP01	GCHP01
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.4	9.1	9.5	27
LCS % Recov.:	94	91	95	90

MS/MSD	60-140	60-140	60-140	60-140
LCS	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

9702B64.BLA <1>





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

Client Project ID: Chevron 9-1723/970220-C2  
Matrix: Liquid

Work Order #: 9702B64-02-03

Reported: Mar 11, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022797BTEX01A	GC022797BTEX01A	GC022797BTEX01A	GC022797BTEX01A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970287104	970287104	970287104	970287104
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/27/97	2/27/97	2/27/97	2/27/97
Analyzed Date:	2/27/97	2/27/97	2/27/97	2/27/97
Instrument I.D.#:	GCHP01	GCHP01	GCHP01	GCHP01
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.1	8.5	9.0	24
MS % Recovery:	91	85	90	80
Dup. Result:	9.5	8.9	9.4	28
MSD % Recov.:	95	89	94	93
RPD:	4.2	4.6	4.3	15
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK022797	BLK022797	BLK022797	BLK022797
Prepared Date:	2/27/97	2/27/97	2/27/97	2/27/97
Analyzed Date:	2/27/97	2/27/97	2/27/97	2/27/97
Instrument I.D.#:	GCHP01	GCHP01	GCHP01	GCHP01
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.9	9.2	9.4	28
LCS % Recov.:	99	92	94	93

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

**Please Note:**

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SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager

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

9702B64.BLA <2>





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

Client Project ID: **Chevron 9-1723/970220-C2**  
Matrix: **Liquid**

Work Order #: **9702B64-04**

Reported: **Mar 11, 1997**

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022697BTEX06A	GC022697BTEX06A	GC022697BTEX06A	GC022697BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970287104	970287104	970287104	970287104
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/26/97	2/26/97	2/26/97	2/26/97
Analyzed Date:	2/26/97	2/26/97	2/26/97	2/26/97
Instrument I.D.#:	GCHP06	GCHP06	GCHP06	GCHP06
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	30
MS % Recovery:	100	100	100	100
Dup. Result:	9.8	9.7	9.9	29
MSD % Recov.:	98	97	99	97
RPD:	2.0	3.0	1.0	3.4
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK022697	BLK022697	BLK022697	BLK022697
Prepared Date:	2/26/97	2/26/97	2/26/97	2/26/97
Analyzed Date:	2/26/97	2/26/97	2/26/97	2/26/97
Instrument I.D.#:	GCHP06	GCHP06	GCHP06	GCHP06
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.9	9.9	10	30
LCS % Recov.:	99	99	100	100

MS/MSD	60-140	60-140	60-140	60-140
LCS	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

9702B64.BLA <3>





**Field  
Data  
Sheets**



# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970220-CZ</u>	Station #: <u>9-1723</u>
Sampler: <u>K.C.</u>	Date: <u>02-20-97</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u>    </u>
Total Well Depth: <u>21.98</u>	Depth to Water: <u>9.01</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(VC)</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: <u>Bailer</u>	Sampling Method: <u>Bailer</u>
<input type="checkbox"/> Disposable Bailer	<input checked="" type="checkbox"/> Disposable Bailer
<input type="checkbox"/> Middleburg	<input type="checkbox"/> Extraction Port
<input type="checkbox"/> Electric Submersible	Other: <u>                    </u>
<input type="checkbox"/> Extraction Pump	
Other: <u>                    </u>	

<u>2.0</u>	x	<u>3</u>	=	<u>6.0</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>14:24</u>	<u>64.6</u>	<u>7.2</u>	<u>1000</u>	<u>2</u>	
<u>14:26</u>	<u>64.4</u>	<u>7.4</u>	<u>800</u>	<u>4</u>	
<u>14:28</u>	<u>64.4</u>	<u>7.3</u>	<u>860</u>	<u>6</u>	

Did well dewater? Yes  (No) Gallons actually evacuated: 6.0

Sampling Time: 14:36 Sampling Date: 02-20-97

Sample I.D.: MW-2 Laboratory: (Sequoia) GTEL N. Creek Assoc. Labs

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

Duplicate I.D.: Analyzed for: TPH-G BTEX MIBE 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>940220-C2</u>	Station #: <u>9-17-23</u>
Sampler: <u>K.C</u>	Start Date: <u>02-20-97</u>
Well I.D.: <u>MW-5</u>	Well Diameter: (circle one) <u>2</u> 3 4 6 <u>   </u>
Total Well Depth: Before <u>17.57</u> After <u>   </u>	Depth to Water: Before <u>903</u> After <u>   </u>
Depth to Free Product: <u>   </u>	Thickness of Free Product (feet): <u>   </u>
Measurements referenced to:	PVC <input type="checkbox"/> Grade <input type="checkbox"/> Other: <u>   </u>

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>1.3</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>3.9</u>	<u>gallons</u>
1 Case Volume		Specified Volumes			

Purging: Bailer  
 Disposable Bailer   
 Middleburg  
 Electric Submersible  
 Extraction Pump  
 Other    

Sampling: Bailer  
 Disposable Bailer   
 Extraction Port  
 Other    

TIME	TEMP. (F)	PH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>13:30</u>	<u>66.2</u>	<u>7.4</u>	<u>400</u>		<u>1.5</u>	
<u>13:31</u>	<u>66.8</u>	<u>7.3</u>	<u>400</u>		<u>2.0</u>	
<u>13:33</u>	<u>66.8</u>	<u>7.2</u>	<u>400</u>		<u>4.0</u>	

Did Well Dewater? N If yes, gals.     Gallons Actually Evacuated: 4

Sampling Time: 13:40 Sampling Date: 2-20-97

Sample I.D.: MW-5 Laboratory: Seq

Analyzed for: TPH-G BTEX TPH-D OTHER: MTBE  
 (Circle)

Duplicate I.D.:     Cleaning Blank I.D.:    

Analyzed for: TPH-G BTEX TPH-D OTHER:  
 (Circle)



# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970220-C2</u>	Station #: <u>9-1723</u>
Sampler: <u>K.C</u>	Start Date: <u>62+ 02-20-94</u>
Well I.D.: <u>MW-6</u>	Well Diameter: (circle one) 2 3 4 6 <u>    </u>
Total Well Depth: Before                      After	Depth to Water: Before                      After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to:	PVC                      Grade                      Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

_____ X _____	Specified Volumes	=	_____ gallons
1 Case Volume			

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

TIME	TEMP. (F)	PH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:

Did Well Dewater?	If yes, gals.	Gallons Actually Evacuated:
Sampling Time:		Sampling Date:
Sample I.D.:		Laboratory:
Analyzed for: (Circle)	TPH-G    BTEX    TPH-D    OTHER:	
Duplicate I.D.:		Cleaning Blank I.D.:
Analyzed for: (Circle)	TPH-G    BTEX    TPH-D    OTHER:	



# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>910220-02</u>	Station #: <u>9-1723</u>
Sampler: <u>K.C</u>	Date: <u>02-20-97</u>
Well I.D.: <u>MW-9</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 <u>    </u>
Total Well Depth: <u>2000</u>	Depth to Water: <u>8.46</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 checked="" type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port Other: _____

<u>7.5</u>	x	<u>225</u>	=	<u>22.5</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
14:00	65.4	7.4	920	7.0	
14:01	63.4	7.2	820	15.0	
14:02	63.6	7.2	800	23.0	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>23</u>
Sampling Time: <u>14:10</u>	Sampling Date: <u>2-20-97</u>
Sample I.D.: <u>MW-9</u>	Laboratory: <u>(Sequoia)</u> GTEL N. Creek Assoc. Labs
Analyzed for: <u>(TPH-G)</u> <u>(BTEX)</u> <u>(MTBE)</u> TPH-D Other:	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D Other:
D.O. (if req'd):	Pre-purge: <u>    </u> mg/L Post-purge: <u>    </u> mg/L
O.R.P. (if req'd):	Pre-purge: <u>    </u> mV Post-purge: <u>    </u> mV