

ENVIRONMENTAL  
PROTECTION

97 APR 30 PM 6:11



**Chevron**

April 24, 1997

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

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

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

**Re: Chevron Service Station #9-6991**  
**2920 Castro Valley Blvd., Castro Valley, California**

Dear Ms. Leech:

Enclosed is the First Quarter 1997 Groundwater Monitoring Report that was prepared by our consultant Blaine Tech Services Inc., for the above noted site. The groundwater samples collected were analyzed for TPH-g, TPH-d, BTEX and MtBE in monitoring wells MW-1, MW-2 and MW-7. Samples are collected from monitoring wells MW-1 annually (1st quarter), MW-2 semi-annually (1st and 3rd quarters) and MW-7 quarterly with the reports submitted semi-annually (1st and 3rd quarters).

The benzene constituent detected in wells MW-1 and MW-2 declined from the previous sampling event but increased slightly in well MW-7 in the Fourth Quarter, but then declined in the First Quarter. The MtBE constituent for monitoring well MW-2 declined from the previous sampling event, while continuing to below the method detection limit in well MW-1. EPA Method 8260 was used in well MW-7 to verify the presence of the MtBE constituent. The results of the sampling was 2000 ppb by 8260 vs. 2100 ppb by 8020 ppb in First Quarter sampling event. The MtBE constituent in well MW-7 has declined steadily since the Third Quarter sampling event.

Depth to groundwater was measured at 10.90 feet to 11.40 feet below grade, with a direction of flow to the south.

Chevron will continue the monitoring program as noted above. If you have any questions, I can be contacted at (510) 842-9136.

Sincerely,  
CHEVRON PRODUCTS COMPANY

Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

April 24, 1997  
Ms. Amy Leech  
Chevron Service Station # 9-6991  
Page 2

cc. Bill Scudder, Chevron

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

**BLAINE**  
TECH SERVICES, INC.



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

ENVIRONMENTAL  
PROTECTION  
97 APR 30 PM 3:11

April 16, 1997

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

### 1st Quarter 1997 Monitoring at 9-6991

First Quarter 1997 Groundwater Monitoring at  
Chevron Service Station Number 9-6991  
2920 Castro Valley Blvd.  
Castro Valley, CA

Monitoring Performed on March 20, 1997

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### Groundwater Sampling Report 970320-W-4

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 Waster 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,

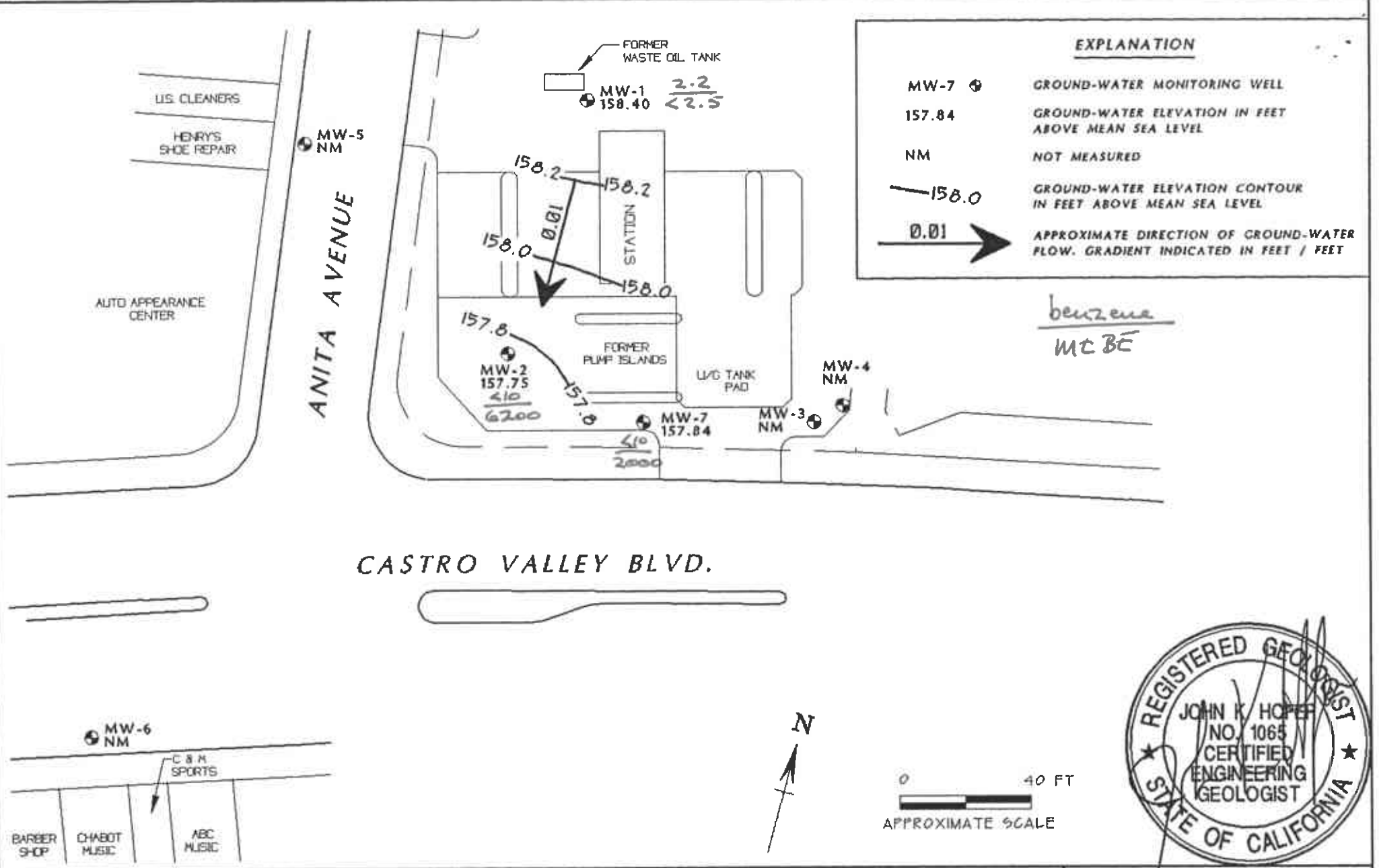
A handwritten signature in cursive script, appearing to read "Francis Thie".

Francis Thie  
Vice President

FPT/cg

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

# **Professional Engineering Appendix**



NOTES:	TITLE : GROUND-WATER ELEVATION CONTOUR MAP - MARCH 20, 1997	 <b>GEOCONSULTANTS, INC</b> SAN JOSE, CALIFORNIA Project No. G758-09 DRWG NO: WB32897 REV:
	LOCATION : CHEVRON SERVICE STATION #9-6991 2920 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA	
	SOURCE : CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC	

# **Table of Well 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	MTBE	TPH-Diesel	TOG
<b>MW-1</b>												
10/08/91	169.30	158.20	11.10	--	230	45	<0.5	0.9	9.1	--	--	<5000
11/04/91	169.30	158.27	11.03	--	340	120	<0.5	<0.5	6.1	--	--	--
12/04/91	169.30	158.25	11.05	--	<50	3.9	<0.5	<0.5	<0.5	--	170	<5000
06/05/92	169.30	158.26	11.04	--	100	26	0.6	0.5	1.0	--	<50	--
10/27/92	169.30	158.20	11.10	--	<50	11	<0.5	<0.5	<0.5	--	54	--
12/30/92	169.30	--	--	--	<50	24	<0.5	<0.5	<0.5	--	170	--
01/27/93	169.30	158.67	10.63	--	--	--	--	--	--	--	--	--
03/05/93	169.30	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
03/17/93	169.30	158.59	10.71	--	--	--	--	--	--	--	--	--
06/18/93	169.30	158.29	11.01	--	<50	0.6	<0.5	<0.5	<1.5	--	<50	--
09/28/93	169.30	157.35	11.95	--	<50	0.8	<0.5	<0.5	<1.5	--	<50	--
12/30/93	169.30	158.34	10.96	--	<50	8.5	<0.5	<0.5	<0.5	--	<50	--
04/07/94	169.30	158.49	10.81	--	<50	<0.5	<0.5	<0.5	<0.5	--	<10	--
05/31/94	169.30	158.38	10.92	--	<50	1.0	<0.5	<0.5	<0.5	--	<50	--
09/23/94	169.30	158.40	10.90	--	<50	1.3	<0.5	<0.5	<0.5	--	<50	--
11/30/94	169.30	158.76	10.54	--	<50	8.9	<0.5	<0.5	<0.5	--	570*	--
03/30/95	169.30	158.60	10.70	--	<50	<0.5	<0.5	<0.5	<0.5	--	110**	--
06/06/95	169.30	158.38	10.92	--	61	15	<0.5	<0.5	<0.5	--	570**	--
09/25/95	169.30	158.30	11.00	--	<50	4.7	<0.5	<0.5	<0.5	--	550**	--
12/28/95	169.30	158.50	10.80	--	72	9.1	0.65	<0.5	<0.5	6.0	330**	--
03/05/96	169.30	159.20	10.10	Sampled annually	<50	7.8	<0.5	<0.5	<0.5	<2.5	780**	--
09/13/96	169.30	158.28	11.02	--	--	--	--	--	--	--	--	--
12/19/96	169.30	158.08	11.22	--	--	--	--	--	--	--	--	--
03/20/97	169.30	158.40	10.90	--	<50	2.2	<0.5	<0.5	<0.5	<2.5	350**	--

\* Chromatogram pattern indicates a non-diesel mix.

\*\* 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	MTBE	TPH-Diesel	TOG
<b>MW-2</b>												
10/08/91	169.15	157.20	11.95	--	110	5.1	1.1	0.8	26	--	--	--
11/19/91	169.15	157.40	11.75	--	120	11	1.1	<0.5	17	--	--	--
12/04/91	169.15	157.35	11.80	--	440	30	2.5	<0.5	52	--	130	--
06/05/92	169.15	157.35	11.80	--	80	13	<0.5	<0.5	1.0	--	130	--
10/27/92	169.15	157.15	12.00	--	54	13	<0.5	<0.5	<0.5	--	110	--
12/30/92	169.15	--	--	--	180	30	<0.5	<0.5	1.0	--	92	--
01/27/93	169.15	158.24	10.91	--	--	--	--	--	--	--	--	--
03/05/93	169.15	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
03/17/93	169.15	158.26	10.89	--	--	--	--	--	--	--	--	--
06/18/93	169.15	157.41	11.74	--	<50	1.4	<0.5	<0.5	<1.5	--	<50	--
09/28/93	169.15	157.97	11.18	--	<50	0.6	<0.5	<0.5	<1.5	--	<50	--
12/30/93	169.15	158.34	21.00	--	<50	0.9	<0.5	<0.5	<0.5	--	<50	--
04/07/94	169.15	158.40	10.75	--	<50	<0.5	<0.5	<0.5	<0.5	--	<10	--
05/31/94	169.15	158.35	10.80	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
09/23/94	169.15	157.50	11.65	--	<50	0.7	<0.5	<0.5	<0.5	--	120	--
11/30/94	169.15	158.41	10.74	--	55	2.9	<0.5	1.4	0.94	--	570*	--
03/30/95	169.15	158.25	10.90	--	91	4.5	<0.5	3.8	<0.5	--	430**	--
06/06/95	169.15	157.73	11.42	--	<50	<0.5	<0.5	<0.5	<0.5	--	410**	--
09/25/95	169.15	157.52	11.63	--	<50	<0.5	<0.5	<0.5	<0.5	--	220**	--
12/28/95	169.15	157.98	11.17	--	<2000	<20	<20	<20	<20	5000	120**	--
03/05/96	169.15	159.09	10.06	Sampled biannually	<2000	<20	<20	<20	<20	10,000	860**	--
09/13/96	169.15	157.37	11.78	--	1100	25	<10	<10	<10	20,000	1300	--
12/19/96	169.15	158.30	10.85	--	--	--	--	--	--	--	--	--
03/20/97	169.15	157.75	11.40	--	2400	<10	<10	46	<10	6200	190**	--

\* Chromatogram pattern indicates a non-diesel mix + discrete peaks.

\*\* 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	MTBE	TPH-Diesel	TOG
<b>MW-3</b>												
10/08/91	169.11	160.84	8.27	--	81	1.9	0.7	0.8	2.4	--	--	--
11/04/91	169.11	158.26	10.85	--	60	<0.5	<0.5	<0.5	<0.5	--	--	--
12/04/91	169.11	158.06	11.05	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
06/05/92	169.11	157.96	11.15	--	<50	<0.5	<0.5	<0.5	<0.5	--	170	--
10/27/92	169.11	157.51	11.60	--	<50	<0.5	<0.5	<0.5	<0.5	--	120	--
12/30/92	169.11	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	170	--
01/27/93	169.11	160.00	9.11	--	--	--	--	--	--	--	--	--
03/05/93	169.11	--	--	--	--	--	--	--	--	--	--	--
03/17/93	169.11	159.16	9.95	--	--	--	--	--	--	--	--	--
06/18/93	169.11	158.22	10.89	--	<50	<0.5	<0.5	<0.5	<1.5	--	<50	--
09/28/93	169.11	159.49	9.62	--	<50	<0.5	<0.5	<0.5	<1.5	--	<50	--
12/30/93	169.11	159.80	9.31	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
04/07/94	169.11	160.30	8.81	--	<50	<0.5	<0.5	<0.5	<0.5	--	<10	--
05/31/94	169.11	160.21	8.90	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
09/23/94	169.11	158.48	10.63	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
11/30/94	169.11	160.19	8.92	Inaccessible	--	--	--	--	--	--	--	--
03/30/95	169.11	160.01	9.10	--	<50	<0.5	<0.5	<0.5	<0.5	--	290*	--
06/06/95	169.11	158.79	10.32	--	<50	<0.5	<0.5	<0.5	<0.5	--	150*	--
09/25/95	169.11	158.11	11.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	260*	--
12/28/95	169.11	158.96	10.15	--	<250	<2.5	<2.5	<2.5	<2.5	1400	200*	--

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	MTBE	TPH-Diesel	TOG
<b>MW-4</b>												
10/27/92	169.18	157.79	11.39	--	<50	<0.5	0.6	0.5	4.3	--	<50	--
12/30/92	169.18	159.05	10.13	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
01/27/93	169.18	160.09	9.09	--	--	--	--	--	--	--	--	--
03/05/93	169.18	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
03/17/93	169.18	159.28	9.90	--	--	--	--	--	--	--	--	--
06/18/93	169.18	158.50	10.68	--	<50	<0.5	<0.5	<0.5	<1.5	--	<50	--
09/28/93	169.18	159.82	9.36	--	<50	<0.5	<0.5	<0.5	<1.5	--	<50	--
12/30/93	169.18	159.91	9.27	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
04/07/94	169.18	160.37	8.81	--	<50	<0.5	<0.5	<0.5	<0.5	--	<10	--
05/31/94	169.18	160.27	8.91	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
09/23/94	169.18	158.79	10.39	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
11/30/94	169.18	160.08	9.10	--	<50	<0.5	<0.5	<0.5	<0.5	--	58*	--
03/30/95	169.18	160.66	8.52	--	<50	<0.5	<0.5	<0.5	<0.5	--	61**	--
06/06/95	169.18	158.70	10.48	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
09/25/95	169.18	158.38	10.80	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
12/28/95	169.18	159.23	9.95	--	<50	<0.5	<0.5	<0.5	<0.5	9.9	<50	--

NO LONGER MONITORED OR SAMPLED

\* Chromatogram pattern indicates a non-diesel mix.

\*\* 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	MTBE	TPH-Diesel	TOG
<b>MW-5</b>												
10/27/92	167.41	157.46	9.95	--	74	<0.5	<0.5	0.6	7.1	--	<50	--
12/30/92	167.41	158.21	9.20	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
01/27/93	167.41	157.80	9.61	--	--	--	--	--	--	--	--	--
03/05/93	167.41	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
03/17/93	167.41	157.90	9.51	--	--	--	--	--	--	--	--	--
06/18/93	167.41	157.56	9.85	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
09/28/93	167.41	157.55	9.86	--	<50	<0.5	<0.5	<0.5	<1.5	--	<50	--
12/30/93	167.41	157.08	10.33	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
04/07/94	167.41	157.69	9.72	--	<50	<0.5	<0.5	<0.5	<0.5	--	<10	--
05/31/94	167.41	157.68	9.73	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
09/23/94	167.41	157.56	9.85	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
11/30/94	167.41	157.73	9.68	--	<50	<0.5	<0.5	<0.5	<0.5	--	79*	--
03/30/95	167.41	157.79	9.62	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
06/06/95	167.41	157.55	9.86	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
09/25/95	167.41	157.56	9.85	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
12/28/95	167.41	157.67	9.74	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	<50	--

NO LONGER MONITORED OR SAMPLED

### MW-6

10/27/92	166.46	153.92	12.54	--	600	22	22	24	130	--	<50	--
12/30/92	166.46	156.26	10.20	--	1700	170	16	46	160	--	470	--
01/27/93	166.46	156.44	10.02	--	--	--	--	--	--	--	--	--
03/05/93	166.46	--	--	--	480	76	0.9	3.1	7.1	--	150	--
03/17/93	166.46	155.79	10.67	--	--	--	--	--	--	--	--	--
06/18/93	166.46	154.63	11.83	--	240	37	3.4	2.9	18	--	51	--
09/28/93	166.46	154.90	11.56	--	150	11	1.2	1.3	4.3	--	120	--
12/30/93	166.46	154.81	11.65	--	680	77	5.1	5.5	13	--	290	--
04/07/94	166.46	155.34	11.12	--	190	24	2.9	1.9	8.0	--	<10	--
05/31/94	166.46	--	--	--	--	--	--	--	--	--	--	--
09/23/94	166.46	155.05	11.41	--	--	--	--	--	--	--	--	--
11/30/94	166.46	156.58	9.88	--	320	49	0.58	1.4	1.2	--	150*	--

NO LONGER MONITORED OR SAMPLED.

\* Chromatogram pattern indicates a non-diesel mix.

## 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	TPH-Diesel	TOG
<b>MW-7</b>												
09/25/95	168.80	157.20	11.60	--	220	0.79	<0.5	0.67	<0.5	--	1400*	--
12/28/95	168.80	158.14	10.66	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	590*	--
03/05/96	168.80	159.74	9.06	--	1400	<10	<10	47	<10	5300	320*	--
06/27/96	168.80	157.27	11.53	--	<2500	<25	<25	<25	<25	14,000	630*	--
09/13/96	168.80	156.88	11.92	--	1100	26	<10	24	<10	20,000	1400	--
12/19/96	168.80	158.29	10.51	--	<5000	<50	<50	<50	<50	12,000	1100**	--
03/20/97	168.80	157.84	10.96	--	<1000	<10	<10	<10	<10	2100	1600**	--
03/20/97	168.80	157.84	10.96	Confirmation run	--	--	--	--	--	2000	--	--

\* Chromatogram pattern indicates an unidentified hydrocarbon.

\*\* Chromatogram pattern indicates an unidentified hydrocarbon and weathered diesel.

## 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	TPH-Diesel	TOG
<b>TRIP BLANK</b>												
10/08/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/04/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/04/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
06/05/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/30/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
01/27/93	--	--	--	--	--	--	--	--	--	--	<50	--
03/05/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/17/93	--	--	--	--	--	--	--	--	--	--	--	--
06/18/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	--
09/28/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/30/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
04/07/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/23/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/30/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/30/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/06/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/25/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/28/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/05/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/27/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/13/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/19/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/20/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--

### ABBREVIATIONS

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl t-butyl ether

TOG = Total Oil and Grease

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.

# Analytical Appendix



Blaine Technical Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-6991 / 961219-J3 Sample Descript: MW-7 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9612C46-01	Sampled: 12/19/96 Received: 12/20/96 Extracted: 12/30/96 Analyzed: 01/02/97 Reported: 01/03/97
Attention: Jim Keller		

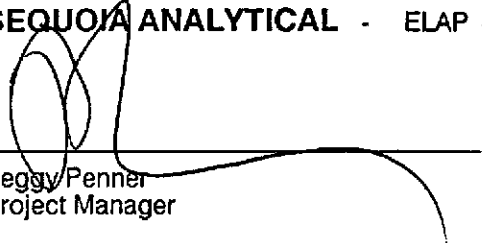
QC Batch Number: GC1230960HBPEXZ  
Instrument ID: GCHP5A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 Unid. HC	1100 & W-Diesel
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 115

Results quantitated against a diesel standard.  
Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager







Blaine Technical Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-6991/ 961219-J3 Sample Descript: MW-7 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9612C46-01	Sampled: 12/19/96 Received: 12/20/96 Analyzed: 12/30/96 Reported: 01/03/97
Attention: Jim Keller		

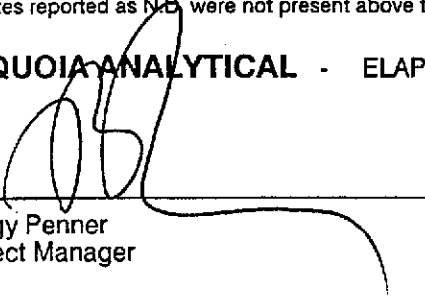
QC Batch Number: GC123096BTEX07A  
Instrument ID: GCHP07

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	N.D.
Methyl t-Butyl Ether	250	12000
Benzene	50	N.D.
Toluene	50	N.D.
Ethyl Benzene	50	N.D.
Xylenes (Total)	50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	119

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Technical Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-6991/ 961219-J3 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9612C46-02	Sampled: 12/19/96 Received: 12/20/96  Analyzed: 12/23/96 Reported: 01/03/97
---	--	---

QC Batch Number: GC122396BTEX07A  
Instrument ID: GCHP07

**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	89

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager





Blaine Technical Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Jim Keller

Client Proj. ID: Chevron 9-6991/ 961219-J3

Received: 12/20/96

Lab Proj. ID: 9612C46

Reported: 01/03/97

### LABORATORY NARRATIVE

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

TPPH Note: Sample 962C46-01 was diluted 100-fold.

**SEQUOIA ANALYTICAL**

Peggy Renner  
Project Manager





Blaine Tech Services, Inc.  
1680 Roges Avenue  
San Jose, CA 95112  
Attention: Jim Keller

Client Project ID: Chevron 9-6991/961219-J3  
Matrix: Liquid

Work Order #: 9612C46 -01

Reported: Jan 7, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	GC123096BTEX07A	GC123096BTEX07A	GC123096BTEX07A	GC123096BTEX07A	GC1230960HBPEXZ
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3520

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	J. Minkel
MS/MSD #:	9612C1902	9612C1902	9612C1902	9612C1902	9612B4707
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	53
Prepared Date:	12/30/96	12/30/96	12/30/96	12/30/96	12/30/96
Analyzed Date:	12/30/96	12/30/96	12/30/96	12/30/96	12/31/96
Instrument I.D.#:	GCHP07	GCHP07	GCHP07	GCHP07	GCHP4B
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	1000 µg/L
Result:	12	12	13	39	710
MS % Recovery:	120	120	130	130	66
Dup. Result:	11	11	11	34	780
MSD % Recov.:	110	110	110	113	73
RPD:	8.7	8.7	17	14	9.4
RPD Limit:	0-25	0-25	0-25	0-25	0-50

LCS #:	BLK123096	BLK123096	BLK123096	BLK123096	BLK123096
Prepared Date:	12/30/96	12/30/96	12/30/96	12/30/96	12/30/96
Analyzed Date:	12/30/96	12/30/96	12/30/96	12/30/96	12/31/96
Instrument I.D.#:	GCHP07	GCHP07	GCHP07	GCHP07	GCHP4B
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	1000 µg/L
LCS Result:	12	12	13	38	970
LCS % Recov.:	120	120	130	127	97

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

9612C46.BLA <1>





Blaine Tech Services, Inc.  
1680 Roges Avenue  
San Jose, CA 95112  
Attention: Jim Keller

Client Project ID: Chevron 9-6991/961219-J3  
Matrix: Liquid

Work Order #: 9612C46-02

Reported: Jan 7, 1997

**QUALITY CONTROL DATA REPORT**

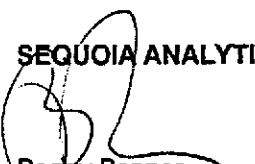
Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122396BTEX07A	GC122396BTEX07A	GC122396BTEX07A	GC122396BTEX07A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	961298006	961298006	961298006	961298006
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/23/96	12/23/96	12/23/96	12/23/96
Analyzed Date:	12/23/96	12/23/96	12/23/96	12/23/96
Instrument I.D.#:	GCHP07	GCHP07	GCHP07	GCHP07
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	9.7	9.6	10	29
MSD % Recov.:	97	96	100	97
RPD:	3.0	4.1	0.0	6.7
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK122396	BLK122396	BLK122396	BLK122396
Prepared Date:	12/23/96	12/23/96	12/23/96	12/23/96
Analyzed Date:	12/23/96	12/23/96	12/23/96	12/23/96
Instrument I.D.#:	GCHP07	GCHP07	GCHP07	GCHP07
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	30
LCS % Recov.:	100	100	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 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

9612C46.BLA <2>







Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-6991/970320-W4 Sample Descript: MW1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9703B92-01	Sampled: 03/20/97 Received: 03/21/97 Extracted: 03/25/97 Analyzed: 03/28/97 Reported: 04/02/97
--	--	--

QC Batch Number: GC0325970HBPEXZ  
Instrument ID: GCHP19A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	350 Unidentified HC
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 78

Results quantitated against a diesel standard.  
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 9-6991/970320-W4 Sample Descript: MW1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9703B92-01	Sampled: 03/20/97 Received: 03/21/97  Analyzed: 03/26/97 Reported: 04/02/97
--	--	---

QC Batch Number: GC032697BTEX03A  
Instrument ID: GCHP3

**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.
<b>Benzene</b>	<b>0.50</b>	<b>2.2</b>
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	90

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	Client Proj. ID: Chevron 9-6991/970320-W4 Sample Descript: MW2 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9703B92-02	Sampled: 03/20/97 Received: 03/21/97 Extracted: 03/25/97 Analyzed: 03/28/97 Reported: 04/02/97
--	--	--

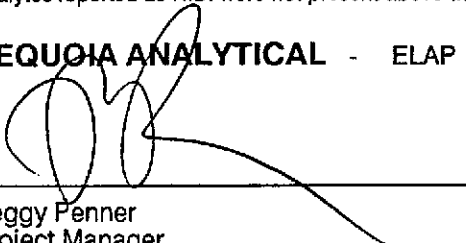
QC Batch Number: GC0325970HBPEXZ  
Instrument ID: GCHP19A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	190 Unidentified HC
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 68

Results quantitated against a diesel standard.  
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 9-6991/970320-W4 Sample Descript: MW2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9703B92-02	Sampled: 03/20/97 Received: 03/21/97 Analyzed: 03/27/97 Reported: 04/02/97
--	--	---

QC Batch Number: GC032797BTEX02A  
Instrument ID: GCHP2

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	2400
Methyl t-Butyl Ether	50	6200
Benzene	10	N.D.
Toluene	10	N.D.
Ethyl Benzene	10	46
Xylenes (Total)	10	N.D.
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	117

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 9-6991/970320-W4 Sample Descript: MW7 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9703B92-03	Sampled: 03/20/97 Received: 03/21/97 Extracted: 03/25/97 Analyzed: 03/28/97 Reported: 04/02/97
Attention: Fran Thie		

QC Batch Number: GC0325970HBPEXZ  
Instrument ID: GCHP19A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 Unid. HC	1600 W-Diesel
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 99

Results quantitated against a diesel standard.  
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 9-6991/970320-W4 Sample Descript: MW7 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9703B92-03	Sampled: 03/20/97 Received: 03/21/97  Analyzed: 03/26/97 Reported: 04/02/97
Attention: Fran Thie		

QC Batch Number: MS032497MTBEH6A  
Instrument ID: H6

**Methyl t-Butyl Ether (MTBE)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	25	2000
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1,2-Dichloroethane-d4	76                      114	99

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 9-6991/970320-W4 Sample Descript: MW7 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9703B92-03	Sampled: 03/20/97 Received: 03/21/97 Analyzed: 03/26/97 Reported: 04/02/97
Attention: Fran Thie		

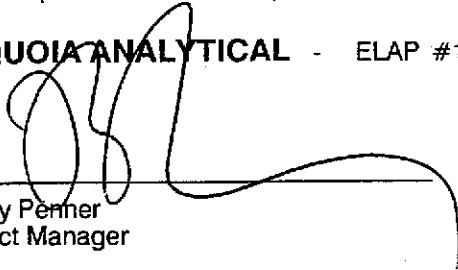
QC Batch Number: GC032697BTEX03A  
Instrument ID: GCHP3

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	N.D.
<b>Methyl t-Butyl Ether</b>	<b>50</b>	<b>2100</b>
Benzene	10	N.D.
Toluene	10	N.D.
Ethyl Benzene	10	N.D.
Xylenes (Total)	10	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 Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-6991/970320-W4 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9703B92-04	Sampled: 03/20/97 Received: 03/21/97 Analyzed: 03/26/97 Reported: 04/02/97
Attention: Fran Thie		

QC Batch Number: GC032697BTEX03A  
Instrument ID: GCHP3

**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	80

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  
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Redwood City, CA 94063  
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(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 9-6991/970320-W4

Received: 03/21/97

Lab Proj. ID: 9703B92

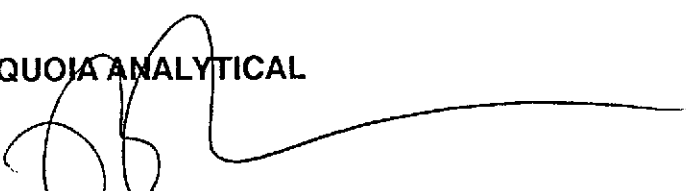
Reported: 04/02/97

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 13 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPPH Note: Sample 9703B92-02 was diluted 20-fold.  
Sample 9703B92-03 was diluted 20-fold.

SEQUOIA ANALYTICAL

  
Peggy Penner  
Project Manager





# Sequoia Analytical

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

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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 9-6991/970320-W4  
Matrix: Water

Work Order #: 9703B92 -01, 03 -04

Reported: Apr 10, 1997

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC032697BTEX03A	GC032697BTEX03A	GC032697BTEX03A	GC032697BTEX03A	GC032697BTEX03A
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 #:	970388504B	970388504B	970388504B	970388504B	970388504B
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/26/97	3/26/97	3/26/97	3/26/97	3/26/97
Analyzed Date:	3/26/97	3/26/97	3/26/97	3/26/97	3/26/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	10	10	28	65
MS % Recovery:	100	100	100	93	108
Dup. Result:	10	10	9.9	28	66
MSD % Recov.:	100	100	99	93	110
RPD:	0.0	0.0	1.0	0.0	1.5
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK032697A	BLK032697A	BLK032697A	BLK032697A	BLK032697A
Prepared Date:	3/26/97	3/26/97	3/26/97	3/26/97	3/26/97
Analyzed Date:	3/26/97	3/26/97	3/26/97	3/26/97	3/26/97
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:	9.8	9.8	9.6	27	61
LCS % Recov.:	98	98	96	90	102

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

Feggy 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

9703B92.BLA <1>







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

Client Project ID: Chevron 9-6991/970320-W4  
Matrix: Water

Work Order #: 9703B92 -02

Reported: Apr 10, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC032797BTEX02A	GC032797BTEX02A	GC032797BTEX02A	GC032797BTEX02A	GC032797BTEX02A
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 #:	9703B1603B	9703B1603B	9703B1603B	9703B1603B	9703B1603B
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/27/97	3/27/97	3/27/97	3/27/97	3/27/97
Analyzed Date:	3/27/97	3/27/97	3/27/97	3/27/97	3/27/97
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:	9.8	9.6	9.6	30	66
MS % Recovery:	98	96	96	100	110
Dup. Result:	9.6	9.5	9.6	30	73
MSD % Recov.:	96	95	96	100	122
RPD:	2.1	1.0	0.0	0.0	10
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK032797	BLK032797	BLK032797	BLK032797	BLK032797
Prepared Date:	3/27/97	3/27/97	3/27/97	3/27/97	3/27/97
Analyzed Date:	3/27/97	3/27/97	3/27/97	3/27/97	3/27/97
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:	9.7	9.7	9.8	31	70
LCS % Recov.:	97	97	98	103	117

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

9703B92.BLA <2>





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

Client Project ID: Chevron 9-6991/970320-W4  
Matrix: Liquid

Work Order #: 9703B92 -01 -03

Reported: Apr 10, 1997

**QUALITY CONTROL DATA REPORT**

**Analyte:** Diesel

**QC Batch#:** GC0325970HBPEXZ  
**Analy. Method:** EPA 8015M  
**Prep. Method:** EPA 3520

**Analyst:** N. Herrera  
**MS/MSD #:** 9703C0201  
**Sample Conc.:** 51  
**Prepared Date:** 3/25/97  
**Analyzed Date:** 3/28/97  
**Instrument I.D.#:** GCHP19A  
**Conc. Spiked:** 1000 µg/L

**Result:** 990  
**MS % Recovery:** 94

**Dup. Result:** 930  
**MSD % Recov.:** 88

**RPD:** 6.3  
**RPD Limit:** 0-50

**LCS #:** BLK032597Xs

**Prepared Date:** 3/25/97  
**Analyzed Date:** 3/28/97  
**Instrument I.D.#:** GCHP19A  
**Conc. Spiked:** 1000 µg/L

**LCS Result:** 870  
**LCS % Recov.:** 87

**MS/MSD** 60-140  
**LCS** 50-150  
**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

9703B92.BLA <3>





# **Field Data Sheets**



# CHEVRON WELL MONITORING DATA SHEET

Project #: 901219-53	Station #: 9-6991
Sampler: MS	Date: 12/19/96
Well I.D.: MW-7	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 19.79	Depth to Water: 10.51
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 Disposable Bailer <input checked="" type="checkbox"/> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer Disposable Bailer <input checked="" type="checkbox"/> Extraction Port Other: _____
--	---

1.4	x	3	=	4.7	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1449	64.2	7.3	1100	2	
1453	63.6	7.2	1000	3.5	
1458	63.2	7.2	1000	5	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 5	
Sampling Time: 1505	Sampling Date: 12/19	
Sample I.D.: MW-7	Laboratory: Sequoia GTEL N. Creek Assoc. Labs	
Analyzed for: <u>TPH-G BTEX MTBE TPH-D</u> Other:		
Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE TPH-D Other:		
D.O. (if req'd):	Pre-purge: <span style="float: right;">mg/L</span>	Post-purge: <span style="float: right;">mg/L</span>
O.R.P. (if req'd):	Pre-purge: <span style="float: right;">mV</span>	Post-purge: <span style="float: right;">mV</span>

## WELL GAUGING DATA

Project # 970320-W4 Date 3/20/97 Client 9-6991

Site 2926 Castro Valley Blvd Castro Valley

Well I.D.	Well Size (in.)	Sheen/Odor	Depth to Immiscible Liquid (feet)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to Water (feet)	Depth to Well Bottom (feet)	Survey Point: TOB or TOC
MW 1	3/4"					10.90	16.35	TOC
* MW 2	3/4"					11.40	* 17.90	↓
MW 7	2"					10.96	19.72	

\* Double checked DFB

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>070320-W4</u>	Station #: <u>9-6991</u>
Sampler: <u>WJ</u>	Date: <u>3/20</u>
Well I.D.: <u>MW1</u>	Well Diameter: 2 3 4 6 8 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"><u>3/4"</u></span>
Total Well Depth: <u>16.35</u>	Depth to Water: <u>10.90</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"><u>PVC</u></span> 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

3/4" = 0.23

Purge Method: <u>Bailer</u> ✓ Disposable Bailer Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> ✓ Disposable Bailer Extraction Port Other: _____
---	--

<u>0.13</u>	X	<u>3</u>	=	<u>0.39</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1255</u>	<u>67.8</u>	<u>6.8</u>	<u>1800</u>	<u>0.15</u>	
<u>1257</u>	<u>67.2</u>	<u>6.9</u>	<u>1800</u>	<u>0.30</u>	
<u>1259</u>	<u>66.8</u>	<u>6.9</u>	<u>1800</u>	<u>0.4</u>	

Did well dewater? Yes <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"><u>No</u></span>	Gallons actually evacuated:
Sampling Time: <u>1300</u>	Sampling Date: <u>3/20</u>
Sample I.D.: <u>MW-1</u>	Laboratory: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"><u>Sequoia</u></span> GTEL N. Creek Assoc. Labs
Analyzed for: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"><u>TPH-G BTEX MTBE TPH-D</u></span> Other:	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D Other:
D.O. (if req'd):	Pre-purge: <span style="text-align: right;">mg/L</span> Post-purge: <span style="text-align: right;">mg/L</span>
O.R.P. (if req'd):	Pre-purge: <span style="text-align: right;">mV</span> Post-purge: <span style="text-align: right;">mV</span>



# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970320-W4</u>	Station #: <u>9-6991</u>
Sampler: <u>WS</u>	Date: <u>3/20</u>
Well I.D.: <u>MW2</u>	Well Diameter: 2 3 4 6 8 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"><u>3/4"</u></span>
Total Well Depth: <u>17.90</u>	Depth to Water: <u>11.40</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"><u>PVC</u></span> Grade	D.O. Meter (if req'd): YSI HACH

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

0.023

Purge Method: Bailer ✓      Sampling Method: Bailer ✓

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

<u>0.15</u>	x	<u>3</u>	=	<u>0.45</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1340	<u>67.8</u>	<u>7.4</u>	<u>1200</u>	<u>0.15</u>	
1343	<u>67.2</u>	<u>7.4</u>	<u>1200</u>	<u>0.30</u>	
1346	<u>67.4</u>	<u>7.3</u>	<u>1200</u>	<u>0.45</u>	

Did well dewater?    Yes    No      Gallons actually evacuated: 0.45

Sampling Time: 1350      Sampling Date: 3/20

Sample I.D.: MW2      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>970320-W4</u>	Station #: <u>9-6991</u>
Sampler: <u>WS</u>	Date: <u>3/20</u>
Well I.D.: <u>MW7</u>	Well Diameter: <u>2</u> 3 4 6 8 <u>    </u>
Total Well Depth: <u>19.72</u>	Depth to Water: <u>10.96</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
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>1.4</u>	x	<u>3</u>	=	<u>4.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1409</u>	<u>66.0</u>	<u>7.4</u>	<u>1200</u>	<u>1.5</u>	<u>ODOR</u>
<u>1412</u>	<u>66.4</u>	<u>7.4</u>	<u>1200</u>	<u>3.0</u>	
<u>1415</u>	<u>66.8</u>	<u>7.4</u>	<u>1200</u>	<u>4.5</u>	

Did well dewater?    Yes    No    Gallons actually evacuated: 4.5

Sampling Time: 1420    Sampling Date: 3/20

Sample I.D.: MW7    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