

ENVIRONMENTAL
PROTECTION

27 FEB 28 AM 10:34



Chevron

February 25, 1997

Chevron Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

Ms. Juliet Shin
Alameda Co. Dept. of Environmental Health
1131 Harbor Bay Pkwy, 2nd Floor
Alameda, CA 94502-6577

Marketing - Northwest Region
Phone 510 842 9500

**Blaine Tech Services February 10, 1997 Monitoring & Sampling Report
Chevron Service Station 9-6607 : 2340 Otis Dr., Alameda, California**

Dear Ms. Shin :

The enclosed report documents the results of the latest monitoring and sampling event. Results show monitoring wells MW-1, MW-3, and MW-4 with non-detectable levels of TPH-G and BTEX. Results from MW-2 show only 540 ppb of TPH-G. Results also show non-detectable levels of MTBE in MW-3 and MW-4. MTBE was detected and confirmed in MW-1 and MW-2 at 880 and 1600 ppb, respectively.

Since the RWQCB is studying the effects of MTBE and regulatory closure at this time may not be possible, Chevron would like to alter the monitoring and sampling frequency based on several years of monitoring and sampling data. Chevron would like your office to approve the following changes :

1. Monitor and sample MW-1 and MW-2 for 2 additional quarters for TPH-G, BTEX, and MTBE.
 - If MTBE is detected in MW-1 and MW-2 by EPA Method 8020, then confirm the detection using EPA Method 8260.
 - If a relatively stable or decreasing trend is established for MTBE after two additional quarters, then reduce the monitoring and sampling frequency to annual because TPH-G and BTEX have been essentially non-detect or relatively low in concentration.
2. Eliminate the monitoring and sampling of MW-3 and MW-4 because the results over the last several years have consistently shown non-detectable levels of TPH-G, BTEX, and MTBE.

I am aware of the RWQCB (San Francisco Bay) efforts to study MTBE. If modifications to the above are needed, then I am willing to discuss those changes with you. Of course, your office has the authority to deny the above changes, but after speaking with you today, some reduction is appropriate. If you have any questions or comments, please call me at (510) 842-8752.

Sincerely,

Kenneth Kan

LKAN/96607R06

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

Not true MW-3 showed .93ppb Benzene in 10/96 and MW-4 showed 5.5ppb Benzene in 10/96. deeper during shuttles > 2ws.

cc : Mr. Wayne Weber
Chevron Station 9-6607
2340 Otis Dr.
Alameda, CA 94501

Harsh Investment Corp.
235 W. MacArthur Blvd., Ste. 63
Oakland, CA 94611

Ms. Bette Owen
Chevron Products Co.

Mr. Greg Barclay
Pacific Environmental Group
11315 Sunrise Gold Circle, Suite M
Rancho Cordova, CA 95742

Mr. Fran Thie (w/o enclosure)
Blaine Tech Services
985 Timothy Dr.
San Jose, CA 95133

BLAINE
TECH SERVICES INC.



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

February 10, 1997

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

1st Quarter 1997 Monitoring at 9-6607

First Quarter 1997 Groundwater Monitoring at
Chevron Service Station Number 9-6607
2340 Otis Drive
Alameda, CA

Monitoring Performed on January 22, 1997

Groundwater Sampling Report 970122-S-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

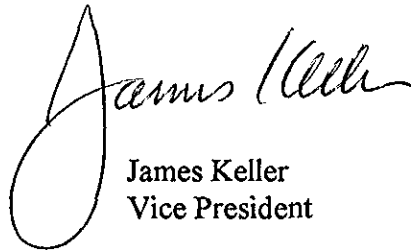
also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix**.

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,



James Keller
Vice President

JPK/cg

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

Professional Engineering Appendix



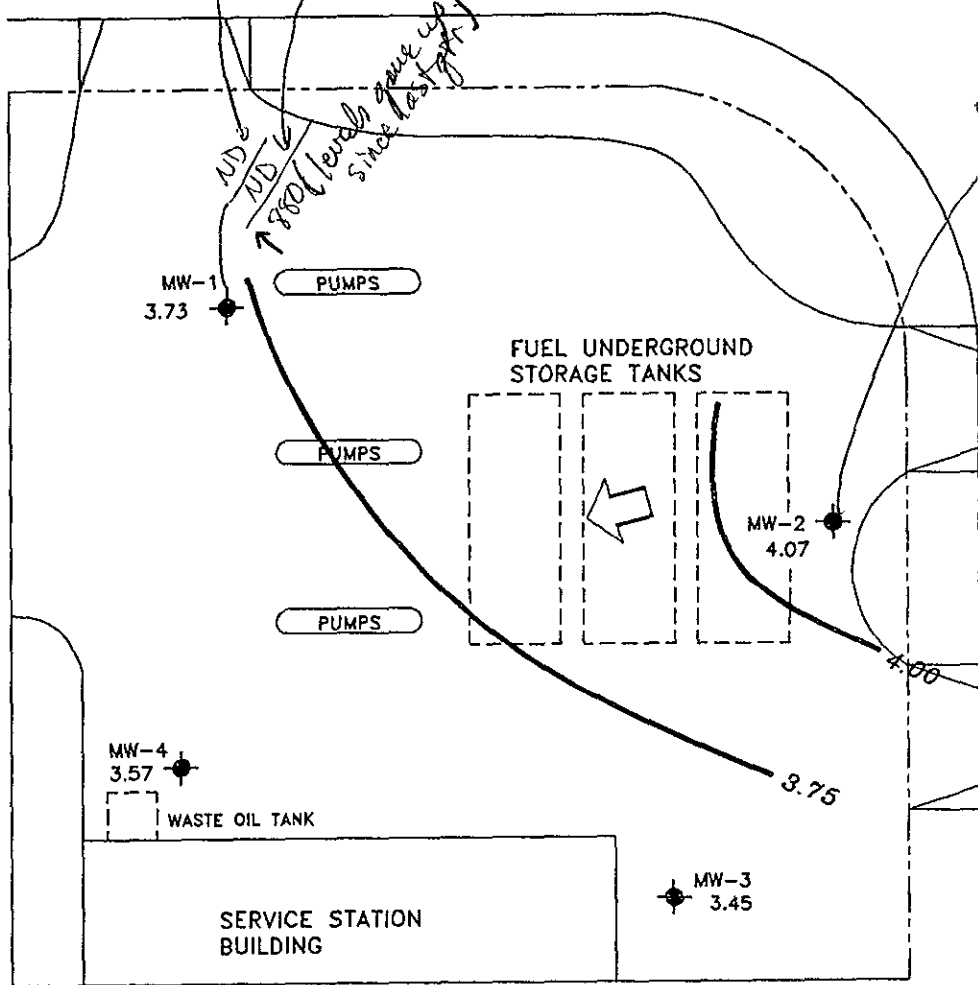
SCALE (ft)



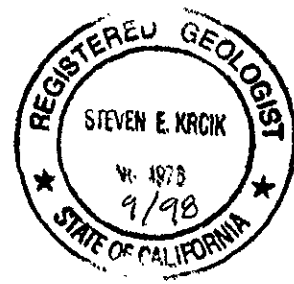
*high Deflecto
Limit of 200 ppb
used
ND
high Deflecto
Limit of 200 ppb
used*

OTIS DRIVE

*high Deflecto
Limit of 500 ppb
used*



- EXPLANATION**
- ◆ 3.57 MONITORING WELL
 - ◆ 3.57 GROUNDWATER ELEVATION (FT, MSL)
 - 4.00 GROUNDWATER ELEVATION CONTOUR (FT, MSL)
 - APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.01



*TPM
Benzene (ppb)
MTBE
↑ conc. went up since last yr.*

Basemap from Cambria Environmental Technology, Inc.


PREPARED BY  engineering contracting firm	Chevron Station 9-6607 2340 Otis Drive Alameda, California	FIGURE: 1
	GROUNDWATER ELEVATION CONTOUR MAP, JANUARY 22, 1997	PROJECT: DAC04

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	TOG	TPH-Diesel	MTBE	Other VOCs	PNAs
MW-1														
08/21/91	7.12	1.02	6.10	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/09/92	7.12	3.16	3.96	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--	--
04/20/92	7.12	3.22	3.90	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
07/25/92	7.12	2.94	4.18	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
11/24/92	7.12	2.40	4.72	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/21/93	7.12	3.94	3.18	--	<50	<0.5	0.7	<0.5	1.0	--	--	--	--	--
04/13/93	7.12	3.42	3.70	--	<50	<0.5	<0.5	<0.5	1.0	--	--	--	--	--
07/14/93	7.12	2.91	4.21	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
10/26/93	7.12	2.84	4.28	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/11/94	7.12	2.96	4.16	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
03/31/94	7.12	3.24	3.88	--	<50	<0.5	0.6	<0.5	0.7	--	--	--	--	--
07/14/94	7.12	4.12	3.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
10/12/94	7.12	2.87	4.25	--	80	<0.5	<0.5	<0.5	<0.5	--	--	121	<5.0--<50	--
01/11/95	7.12	4.00	3.12	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	130	--	--
04/05/95	7.12	3.66	3.46	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	170	--	<5.0
07/13/95	7.12	3.13	3.99	--	<125	<1.2	<1.2	<1.2	<1.2	--	--	400	--	--
10/05/95	7.12	2.74	4.38	--	<50	<0.5	2.3	0.66	4.0	--	--	300	--	--
10/03/96	7.12	2.68	4.44	--	<50	0.63	<0.5	<0.5	<0.5	--	--	560	--	--
01/22/97	7.12	3.73	3.39	--	<200	<2.0	<2.0	<2.0	<2.0	--	--	530	--	--
01/22/97	7.12	3.73	3.39	Confirmation run	--	--	--	--	--	--	--	880	--	--

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	TOG	TPH-Diesel	MTBE	Other VOCs	PNA's
MW-2														
08/21/91	7.43	1.03	6.40	--	430	170	0.9	1.0	3.6	--	--	--	--	--
01/09/92	7.43	3.20	4.23	--	58	16	<0.5	<0.5	<0.5	<5000	--	--	--	--
04/20/92	7.43	3.26	4.17	--	180	9.6	<0.5	0.8	<0.5	--	--	--	--	--
07/25/92	7.43	2.96	4.47	--	220	8.0	0.7	4.0	8.6	--	--	--	--	--
11/24/92	7.43	1.61	5.82	--	72	3.2	<0.5	0.5	0.6	--	--	--	--	--
01/21/93	7.43	4.08	3.35	--	<50	0.8	<0.5	<0.5	<0.5	--	--	--	--	--
04/13/93	7.43	3.41	4.02	--	78	<0.5	<0.5	<0.5	0.6	--	--	--	--	--
07/14/93	7.43	2.94	4.49	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
10/26/93	7.43	2.87	4.56	--	<50	<0.5	0.9	<0.5	0.6	--	--	--	--	--
01/11/94	7.43	3.04	4.39	--	<50	<0.5	1.0	<0.5	<0.5	--	--	--	--	--
03/31/94	7.43	3.25	4.18	--	<50	0.5	<0.5	<0.5	0.8	--	--	--	--	--
07/14/94	7.43	2.53	4.90	--	<50	<0.5	<0.5	<0.5	0.6	--	--	--	--	--
10/12/94	7.43	2.89	4.54	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	2900	<50--<500	--
01/11/95	7.43	4.17	3.26	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	2500	--	--
04/05/95	7.43	3.78	3.65	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.0	--	<5.0
07/13/95	7.43	3.12	4.31	--	<250	<2.5	<2.5	<2.5	<2.5	--	--	1100	--	--
10/05/95	7.43	2.75	4.68	--	<50	<0.5	1.9	0.54	3.4	--	--	280	--	--
10/03/96	7.43	2.63	4.80	--	<500	<5.0	<5.0	<5.0	<5.0	--	--	1000	--	--
01/22/97	7.43	4.07	3.36	--	540*	<5.0	<5.0	<5.0	<5.0	--	--	1300	--	--
01/22/97	7.43	4.07	3.36	Confirmation run	--	--	--	--	--	--	--	1600	--	--

* 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	TOG	TPH-Diesel	MTBE	Other VOCs	PNAs
MW-3														
08/21/91	8.07	0.97	7.10	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/09/92	8.07	3.04	5.03	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--	--
04/20/92	8.07	3.16	4.91	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
07/25/92	8.07	2.73	5.34	--	<50	1.0	1.0	1.0	3.4	--	--	--	--	--
11/24/92	8.07	3.07	5.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/21/93	8.07	3.73	4.34	--	<50	<0.5	0.5	<0.5	1.0	--	--	--	--	--
04/13/93	8.07	3.23	4.84	--	<50	<0.5	<0.5	<0.5	0.6	--	--	--	--	--
07/14/93	8.07	2.78	5.29	--	<50	<0.5	<0.5	<0.5	2.0	--	--	--	--	--
10/26/93	8.07	2.71	5.36	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/11/94	8.07	2.85	5.22	--	<50	<0.5	1.0	<0.5	<0.5	--	--	--	--	--
03/31/94	8.07	3.08	4.99	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
07/14/94	8.07	2.71	5.36	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
10/12/94	8.07	3.05	5.02	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/11/95	8.07	3.72	4.35	--	<50	<0.5	<0.5	<0.5	0.7	--	--	<5.0	--	--
04/05/95	8.07	5.43	2.64	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0	--	<5.0
07/13/95	8.07	2.94	5.13	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
10/05/95	8.07	2.61	5.46	--	<50	<0.5	1.2	<0.5	<0.5	--	--	--	--	--
10/03/96	8.07	2.54	5.53	--	<50	0.98	1.2	0.53	2.5	--	--	<2.5	--	--
01/22/97	8.07	3.45	4.62	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5	--	--

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	TOG	TPH-Diesel	MTBE	Other VOCs	PNAs	
MW-4															
08/21/91	7.85	1.00	6.85	--	<50	0.6	<0.5	<0.5	<0.5	<5000	--	--	--	--	
01/09/92	7.85	3.15	4.70	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--	--	
04/20/92	7.85	3.21	4.64	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--	--	
07/25/92	7.85	2.90	4.95	--	<50	0.5	1.1	<0.5	0.8	--	78	--	--	--	
11/24/92	7.85	2.43	5.42	--	<50	<0.5	<0.5	<0.5	1.0	<5000	--	--	--	--	
01/21/93	7.85	3.78	4.07	--	<50	<0.5	0.5	<0.5	0.7	--	<10	--	--	--	
04/13/93	7.85	3.40	4.45	--	<50	<0.5	<0.5	<0.5	1.0	--	<10	--	--	--	
07/14/93	7.85	2.95	4.90	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
10/26/93	7.85	2.90	4.95	--	<50	2.0	3.0	2.0	3.0	--	--	--	--	--	
01/11/94	7.85	3.08	4.77	--	<50	<0.5	0.5	<0.5	<0.5	--	--	--	--	--	
03/31/94	7.85	3.20	4.65	--	<50	<0.5	<0.5	<0.5	1.0	--	--	--	--	--	
07/14/94	7.85	2.80	5.05	--	<50	0.9	1.2	<0.5	2.0	--	--	--	--	--	
10/12/94	7.85	2.97	4.88	--	<50	<0.5	0.9	<0.5	0.7	--	--	--	--	--	
01/11/95	7.85	3.85	4.00	--	<50	<0.5	0.8	0.7	1.5	--	--	<5.0	--	--	
04/05/95	7.85	3.63	4.22	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	<2.0	<5.0	--	
07/13/95	7.85	3.14	4.71	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
10/05/95	7.85	2.83	5.02	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
10/03/96	7.85	2.77	5.08	--	100	5.5	5.6	2.5	12	--	--	<2.5	--	--	
01/22/97	7.85	3.57	4.28	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5	--	--	

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	TOG	TPH-Diesel	MTBE	Other VOCs	PNAs
TRIP BLANK														
01/21/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
04/13/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
07/14/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
10/26/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/11/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
03/31/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
07/14/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
10/12/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/11/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
04/05/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
07/13/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
10/05/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
10/03/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/22/97	--	--	--	--	<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 April 5, 1995. Earlier field data and analytical results provided by Sierra Environmental.

ABBREVIATIONS:

- TPH = Total Petroleum Hydrocarbons
- TOG = Total Oil and Grease
- MTBE = Methyltertiary butylether
- VOC = Volatile Organic Compound

Analytical Appendix



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-6607/970122-S2 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9701B78-01	Sampled: 01/22/97 Received: 01/23/97 Analyzed: 01/29/97 Reported: 01/30/97
--	---	---

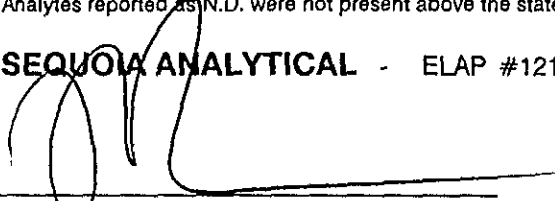
QC Batch Number: MS012997MTBEH6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	10	880 ✓
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76 114	112 ✓

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 9-6607/970122-S2 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9701B78-01	Sampled: 01/22/97 Received: 01/23/97 Analyzed: 01/27/97 Reported: 01/30/97
--	---	---

QC Batch Number: GC012797BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	200	N.D.
Methyl t-Butyl Ether	10	530
Benzene	2.0	N.D.
Toluene	2.0	N.D.
Ethyl Benzene	2.0	N.D.
Xylenes (Total)	2.0	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	93 ✓

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 9-6607/970122-S2 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9701B78-02	Sampled: 01/22/97 Received: 01/23/97 Analyzed: 01/29/97 Reported: 01/30/97
--	---	---

QC Batch Number: MS012997MTBEH6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	20	1600
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76 114	106 ✓

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 9-6607/970122-S2 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9701B78-02	Sampled: 01/22/97 Received: 01/23/97 Analyzed: 01/27/97 Reported: 01/30/97
--	---	---

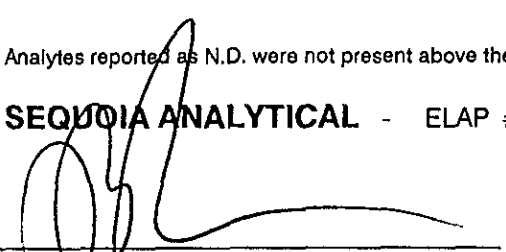
QC Batch Number: GC012797BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	540
Methyl t-Butyl Ether	25	1300
Benzene	5.0	N.D.
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern: Unidentified HC		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	88 ✓

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 9-6607/970122-S2 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9701B78-03	Sampled: 01/22/97 Received: 01/23/97 Analyzed: 01/24/97 Reported: 01/30/97
--	---	---

QC Batch Number: GC012397BTEX03B
Instrument ID: GCHP03

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:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	100

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 9-6607/970122-S2 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9701B78-04	Sampled: 01/22/97 Received: 01/23/97 Analyzed: 01/24/97 Reported: 01/30/97
--	---	---

QC Batch Number: GC012397BTEX03B
Instrument ID: GCHP03

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:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	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 9-6607/970122-S2 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9701B78-05	Sampled: 01/22/97 Received: 01/23/97 Analyzed: 01/24/97 Reported: 01/30/97
--	---	---

QC Batch Number: GC012397BTEX03B
Instrument ID: GCHP03

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:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	95 ✓

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 9-6607/970122-S2

Received: 01/23/97

Lab Proj. ID: 9701B78

Reported: 01/30/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 71 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPPH Note: Sample 9701B78-01 was diluted 4-fold.
Sample 9701B78-02 was diluted 10-fold.

SEQUOIA ANALYTICAL


Peggy Penner
Project Manager





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

Client Project ID: Chevron 9-6607 / 970122-S2
Matrix: Liquid

Work Order #: 9701B78 -01-02

Reported: Jan 31, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC012797BTEX02A	GC012797BTEX02A	GC012797BTEX02A	GC012797BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	970191701	970191701	970191701	970191701
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/27/97	1/27/97	1/27/97	1/27/97
Analyzed Date:	1/27/97	1/27/97	1/27/97	1/27/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L

Result:	9.0	8.8	9.0	29
MS % Recovery:	90	88	90	97

Dup. Result:	8.7	8.4	8.6	28
MSD % Recov.:	87	84	86	93

RPD:	3.4	4.7	4.5	3.5
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK012797	BLK012797	BLK012797	BLK012797
Prepared Date:	1/27/97	1/27/97	1/27/97	1/27/97
Analyzed Date:	1/27/97	1/27/97	1/27/97	1/27/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	7.8	7.7	7.7	25
LCS % Recov.:	78	77	77	83

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

9701B78.BLA <1>





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

Client Project ID: Chevron 9-6607 / 970122-S2
Matrix: Liquid

Work Order #: 9701B78-03-05

Reported: Jan 31, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC012397BTEX03B	GC012397BTEX03B	GC012397BTEX03B	GC012397BTEX03B
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	970167501	970167501	970167501	970167501
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/23/97	1/23/97	1/23/97	1/23/97
Analyzed Date:	1/23/97	1/23/97	1/23/97	1/23/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L

Result:	10	10	11	32
MS % Recovery:	100	100	110	107 ✓

Dup. Result:	10	10	11	32
MSD % Recov.:	100	100	110	107 ✓

RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25 ✓

LCS #:	BLK012397	BLK012397	BLK012397	BLK012397
Prepared Date:	1/23/97	1/23/97	1/23/97	1/23/97
Analyzed Date:	1/23/97	1/23/97	1/23/97	1/23/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.8	9.7	10	29
LCS % Recov.:	98	97	100	97 ✓

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

Please Note:

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

SEQUOIA ANALYTICAL

Reggy Penner
Project Manager

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

9701B78.BLA <2>





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Project ID: Chevron 9-6607 / 970122-S2 Matrix: Liquid Work Order #: 9701B78-01-02	Reported: Jan 31, 1997
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QUALITY CONTROL DATA REPORT

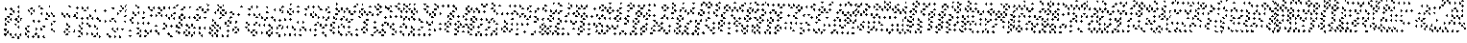
Analyte:	MTBE
QC Batch#:	MS012997MTBEH6A
Analy. Method:	EPA 8260
Prep. Method:	N.A.

Analyst: M. Williams
MS/MSD #: 9701A7501
Sample Conc.: 120
Prepared Date: -
Analyzed Date: 1/29/97
Instrument I.D.#: H6
Conc. Spiked: 50 µg/L

Result: 170
MS % Recovery: 100

Dup. Result: 170
MSD % Recov.: 100

RPD: 0.0 ✓
RPD Limit: 0-25

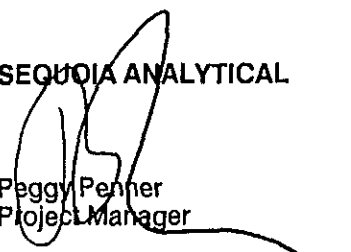


LCS #: VB012997

Prepared Date: -
Analyzed Date: 1/29/97
Instrument I.D.#: H6
Conc. Spiked: 50 µg/L

LCS Result: 58 ✓
LCS % Recov.: 116

MS/MSD	60-140
LCS	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.



1. Fax copy of Lab Report and CUC to Chevron Contact: LINDA

Chain-of-Custody-Record

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

Chevron Facility Number 9-6607
Facility Address 2340 Otis Dr., Alameda, CA
Consultant Project Number 970122-52
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) Phil Briggs
(Phone) (510) 842-9136
Laboratory Name Sequoia
Laboratory Release Number 9032410
Samples Collected by (Name) DOUG SANDERS
Collection Date 1-22-97
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	Lead (Yes or No)	Analyses To Be Performed <u>9701B78</u>										DO NOT BILL FOR TB-LB	Remarks		
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Greases (8020)	Polycyclic Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8040)	Extractable Organics (8070)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	MTBE					
MW-1	1	3	W	D	1450	HCl	Y	X													
MW-2	2	3	W	D	1505	↓	Y	X													"Confirm all MTBE hits by 8260."
MW-3	3	3	W	D	1415		Y	X													
MW-4	4	3	W	D	1430		Y	X													
TB	5	2	W	D			Y	X													

Shipped By (Signature) <u>[Signature]</u>	Organization <u>BTS</u>	Date/Time <u>1/23 0915</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>SEQUOIA</u>	Date/Time <u>1/23 0915</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted
By (Signature) <u>[Signature]</u>	Organization <u>SEQUOIA</u>	Date/Time <u>1/23/97</u>	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time	
By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time <u>01-23-97 10:40</u>	

Field Data Sheets

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970122-52</u>	Station #: <u>9-6607</u>
Sampler: <u>DOUG</u>	Start Date: <u>1-22-97</u>
Well I.D.: <u>MW-1</u>	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before <u>23.18</u> After	Depth to Water: Before <u>3.39</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	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

<u>12.9</u>	x	<u>3</u>	=	<u>38.6</u>
1 Case Volume		Specified Volumes		gallons

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>14:41</u>	<u>64.4</u>	<u>7.2</u>	<u>2600</u>	<u>—</u>	<u>13</u>	
<u>14:43</u>	<u>64.6</u>	<u>7.1</u>	<u>2100</u>	<u>—</u>	<u>26</u>	
<u>14:45</u>	<u>64.6</u>	<u>7.1</u>	<u>2100</u>	<u>—</u>	<u>39</u>	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 39

Sampling Time: 14:50 Sampling Date: 1-22-97

Sample I.D.: MW-1 Laboratory: SEQUOIA

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

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

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

CHEVRON WELL MONITORING DATA SHEET

Project #: 970122-52	Station #: 9-6607
Sampler: DOUG	Start Date: 1-22-97
Well I.D.: MW-2	Well Diameter: (circle one) 2 3 4 6
Total Well Depth: Before 23.53 After	Depth to Water: Before 3.36 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: FVC	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

<u>13.1</u>	\times	<u>3</u>	$=$	<u>39.3</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer
 Disposable Bailer
 Middleburg
Electric Submersible
 Extraction Pump
 Other _____

Sampling: Bailer
Disposable Bailer
 Extraction Post
 Other _____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
14:56	64.0	7.1	1300	—	13	
14:58	63.8	7.1	1200	—	26	
15:00	64.0	7.1	1100	—	39.5	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 39.5

Sampling Time: 15:05 Sampling Date: 1-22-97

Sample I.D.: MW-2 Laboratory: SEQUOIA

Analyzed for: TPH-G BTEX TPH-D OTHER:
MTBE

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

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

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970122-52</u>	Station #: <u>9-6607</u>
Sampler: <u>DOUG</u>	Start Date: <u>1-22-97</u>
Well I.D.: <u>MW-3</u>	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before <u>23.52</u> After	Depth to Water: Before <u>4.62</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	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

<u>12.3</u>	\times	<u>3</u>	$=$	<u>36.9</u>
1 Case Volume		Specified Volumes		gallons

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>14:06</u>	<u>66.6</u>	<u>7.2</u>	<u>2300</u>	—	<u>12</u>	
<u>14:08</u>	<u>66.4</u>	<u>7.2</u>	<u>2500</u>	—	<u>25</u>	
<u>14:10</u>	<u>66.4</u>	<u>7.2</u>	<u>2600</u>	—	<u>37</u>	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 37

Sampling Time: 14:15 Sampling Date: 1-22-97

Sample I.D.: MW-3 Laboratory: SEQUOIA

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

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

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

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970122-S2</u>	Station #: <u>9-6607</u>
Sampler: <u>DOUG</u>	Start Date: <u>1-22-97</u>
Well I.D.: <u>MW-4</u>	Well Diameter: (circle one) 2 3 <u>(4)</u> 6
Total Well Depth: Before <u>20.27</u> After	Depth to Water: Before <u>4.28</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>(PVC)</u> 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

<u>10.4</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>31.2</u>
1 Case Volume		Specified Volumes		gallons

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>14:21</u>	<u>64.2</u>	<u>7.2</u>	<u>2800</u>	<u>—</u>	<u>10</u>	
<u>14:22</u>	<u>64.0</u>	<u>7.1</u>	<u>2800</u>	<u>—</u>	<u>21</u>	
<u>14:24</u>	<u>63.8</u>	<u>7.1</u>	<u>2800</u>	<u>—</u>	<u>32</u>	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 32

Sampling Time: 14:30 Sampling Date: 1-22-97

Sample I.D.: MW-4 Laboratory: SEQUOIA

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

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

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