Chevron

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

Marketing – Northwest Region
Phone 510 842 9500

November 22, 1996

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

Blaine Tech Services November 12, 1996 Monitoring & Sampling Report
Chevron Service Station 9-6607 : 2340 Otis Dr., Alameda, California

Dear Ms. Shin :

The enclosed report documents the results of the October 3, 1996 monitoring and sampling event. Results show detectable levels of TPH-G and BTEX in the groundwater. However, the detections are suspect because all of the wells have historically been non-detect for the last 5 years. Overall, concentrations were relatively low.

Pacific Environmental Group (PEG) will review the results and provide an explanation for the detection of gasoline constituents. If the detections can not be explained, then Chevron will have Blaine Tech Services (Blaine) re-sample those specific wells that detected gasoline constituents. Depending on the results of PEG's review or Blaine's re-sampling, Chevron will proceed with case closure. If you have any questions or comments, please call me at (510) 842-8752.

Sincerely,

Kenneth Kan

LKAN/96607R03

Enclosure

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

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

Utah International
P.O. Box 7611, San Francisco, CA 94120

Ms. Bette Owen, Chevron Products Co.

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

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

November 12, 1996

Kenneth Kan
Chevron U.S.A. Products Company
P.O. Box 5004
San Ramon, CA 94583-0804

4th Quarter 1996 Monitoring at 9-6607

Fourth Quarter 1996 Groundwater Monitoring at
Chevron Service Station Number 9-6607
2340 Otis Drive
Alameda, CA

Monitoring Performed on October 3, 1996

Groundwater Sampling Report **951003-L-1**

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 Chevron's Richmond Refinery 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.

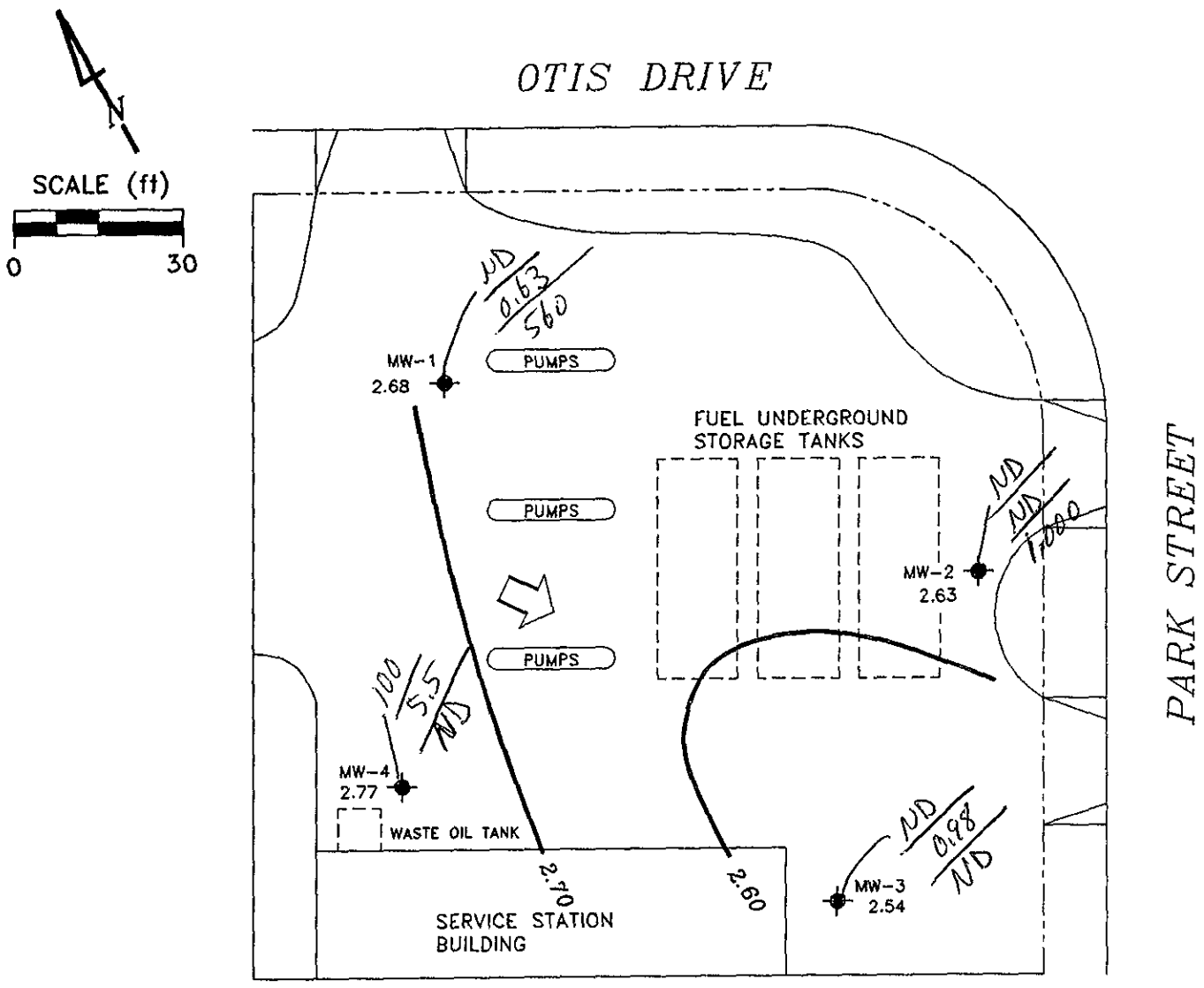
Yours truly,

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



EXPLANATION

- ✦ MONITORING WELL
- 2.68 GROUNDWATER ELEVATION (FT, MSL)
- 2.70 GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.003

REGISTERED GEOLOGIST
STEVEN E. KRCIK
No. 4976
9/96
STATE OF CALIFORNIA

TPHg
Benzene 1ppb
MTBE

Basemap from Cambria Environmental Technology, Inc.

PREPARED BY		
RRM INC.	**Chevron Station 9-6607** 2340 Otis Drive Alameda, California **GROUNDWATER ELEVATION CONTOUR MAP, OCTOBER 3, 1996**	FIGURE: 1 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	--	--

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-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	--	--

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	--	--

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	--	--

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	--	--	--	--	--

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 = Methytertiary butylether
VOC = Volatile Organic Compound

Analytical Appendix

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Chevron 9-6607/961003-L1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-1	Received: 10/04/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/09/96
Attention: Jim Keller	Lab Number: 9610334-01	Reported: 10/14/96

QC Batch Number: GC100996BTEX06A
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**	**560**
Benzene	**0.50**	**0.63**
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	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, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Chevron 9-6607/961003-L1
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610334-02

Sampled: 10/03/96
Received: 10/04/96

Analyzed: 10/08/96
Reported: 10/14/96

QC Batch Number: GC100896BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	N.D.
Methyl t-Butyl Ether	**25**	**1000**
Benzene	5.0	N.D.
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	78

Sample diluted 10-fold.

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, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Chevron 9-6607/961003-L1
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610334-03

Sampled: 10/03/96
Received: 10/04/96

Analyzed: 10/08/96
Reported: 10/14/96

QC Batch Number: GC100896BTEX22A
Instrument ID: GCHP22

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**	**0.98**
Toluene	**0.50**	**1.2**
Ethyl Benzene	**0.50**	**0.53**
Xylenes (Total)	**0.50**	**2.5**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
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, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Chevron 9-6607/961003-L1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-4	Received: 10/04/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/08/96
Attention: Jim Keller	Lab Number: 9610334-04	Reported: 10/14/96

QC Batch Number: GC100896BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**100**
Methyl t-Butyl Ether	2.5	N.D.
Benzene	**0.50**	**5.5**
Toluene	**0.50**	**5.6**
Ethyl Benzene	**0.50**	**2.5**
Xylenes (Total)	**0.50**	**12**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	84

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Chevron 9-6607/961003-L1
Sample Descript: TB
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610334-05

Sampled: 10/03/96
Received: 10/04/96

Analyzed: 10/08/96
Reported: 10/14/96

QC Batch Number: GC100896BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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	79

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, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Proj. ID: Chevron 9-6607/961003-L1

Lab Proj. ID: 9610334

Received: 10/04/96

Reported: 10/14/96

LABORATORY NARRATIVE

TPPH Note: Sample 9610334-02 was diluted 10-fold.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Chevron 9-6607 / 961003-L1
Matrix: Liquid
Work Order #: 9610334 -01
Reported: Oct 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC100996BTEX06A	GC100996BTEX06A	GC100996BTEX06A	GC100996BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	961027804	961027804	961027804	961027804
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/9/96	10/9/96	10/9/96	10/9/96
Analyzed Date:	10/9/96	10/9/96	10/9/96	10/9/96
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	13	11	11	33
MS % Recovery:	130	110	110	110
Dup. Result:	14	12	11	34
MSD % Recov.:	135	120	110	113
RPD:	3.8	8.7	0.0	3.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK100996	BLK100996	BLK100996	BLK100996
Prepared Date:	10/9/96	10/9/96	10/9/96	10/9/96
Analyzed Date:	10/9/96	10/9/96	10/9/96	10/9/96
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	13	11	10	32
LCS % Recov.:	130	110	100	107
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services, Inc.	Client Project ID:	Chevron 9-6607 / 961003-L1
985 Timothy Drive	Matrix:	Liquid
San Jose, CA 95133		
Attention: Jim Keller	Work Order #:	9610334-02-04 Reported: Oct 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC100896BTEX22A	GC100896BTEX22A	GC100896BTEX22A	GC100896BTEX22A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	H. Porter	H. Porter	H. Porter	H. Porter
MS/MSD #:	9610G9801	9610G9801	9610G9801	9610G9801
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/8/96	10/8/96	10/8/96	10/8/96
Analyzed Date:	10/8/96	10/8/96	10/8/96	10/8/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	9.0	9.0	28
MS % Recovery:	100	90	90	93
Dup. Result:	9.5	9.0	9.0	28
MSD % Recov.:	95	90	90	93
RPD:	5.1	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK100896	BLK100896	BLK100896	BLK100896
Prepared Date:	10/8/96	10/8/96	10/8/96	10/8/96
Analyzed Date:	10/8/96	10/8/96	10/8/96	10/8/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.8	9.2	9.2	29
LCS % Recov.:	98	92	92	97

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

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

Chain-of-Custody-Record

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

Chevron Facility Number 9-6607
Facility Address 2340 Otis Dr., Alameda, CA
Consultant Project Number 961003-L1
Consultant Name Blaine Tech Services. Inc.
Address 985 Timothy Dr., San Jose, CA 95133
Project Contact (Name) Jim Keller
(Phone) 408 995-5535 (Fax Number) 408 293-8773

Chevron Contact (Name) Phil Briggs
(Phone) (510) 842-9136
Laboratory Name Sequoia
Laboratory Release Number 2768951
Samples Collected by (Name) LAD GILCHRIST
Collection Date 10-3-96
Signature Lad Gilchrist

Analyses To Be Performed 9610334

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	MTBE					Remarks
MW-1	1 A-C	3	W		1108	HCL	Yes	X								X					DO NOT BILL FOR TB-LB
MW-2	2	3	W		1050			X								X					
MW-3	3	3	W		1018			X								X					
MW-4	4	3	W		1037			X								X					
TB	5 A-B	2	W		—			X													

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Lad Gilchrist	BTS	10/4/96 9:09	[illegible]	SEQ	10/4/96 9:08
[illegible]	SEQ	10/4/96 1105	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time 10/4/96 1108

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Field
Data
Sheets

WELL GAUGING DATA

Project # 961003-C1 Date 10-3-96 Client CHEV #9-6607

Site 2340 Otis DR, ALAMEDA, CA

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	4					4.44 ~~3.53~~	23.18	TOC
MW-2	4					4.80	23.56	↓
MW-3	4					5.53	23.53	↓
MW-4	4					5.08	20.27	↓

CHEVRON WELL MONITORING DATA SHEET

Project #: 961003-L1	Station #: 9-6607
Sampler: LAD	Start Date: 10-3-96
Well I.D.: MW-1	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 23.18 After	Depth to Water: Before 4.44 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

12.2 (1 Case Volume) x 3 (Specified Volumes) = 36.6 gallons

Purging: Bailer; Disposable Bailer; Middleburg; Electric Submersible X; Extraction Pump; Other ____

Sampling: Bailer; Disposable Bailer X; Extraction Port; Other ____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1100	65.0	7.3	1000.	~~>20~~	13.	
1102	66.8	7.2	1200.	———	25.	
1104	66.4	7.2	1300.	———	37.	

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

Sampling Time: 1108	Sampling Date: 10-3-96
Sample I.D.: MW-1	Laboratory: SEQUOIA
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 #: 961003-L1	Station #: 9-6607
Sampler: LAD	Start Date: 10-3-96
Well I.D.: MW-2	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 23.56 After	Depth to Water: Before 4.80 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

12.2	x	3		36.6
1 Case Volume		Specified Volumes	=	gallons

Purging: Bailer
Disposable Bailer
Middleburg
Electric Submersible X
Extraction Pump
Other_____

Sampling: Bailer
Disposable Bailer X
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1044	65.8	7.6	1400.	—	13.	
1046	67.6	7.6	980.	—	25.	
1048	67.0	7.5	900.	—	37.	

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

Sampling Time: 1050 Sampling Date: 10-3-96

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

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

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

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

CHEVRON WELL MONITORING DATA SHEET

Project #: 961003-L1	Station #: 9-6607
Sampler: LAD	Start Date: 10-3-96
Well I.D.: MW-3	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 23.53 After	Depth to Water: Before 5.53 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

12.0	x	3	=	36.
1 Case Volume		Specified Volumes		gallons

Purging: Bailer
Disposable Bailer ~~X~~
Middleburg
Electric Submersible X
Extraction Pump
Other_____

Sampling: Bailer
Disposable Bailer ~~X~~
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1011	65.2	7.1	2200.	—	12.	
1013	65.0	7.0	2100.	—	24.	
1015	64.8	7.0	2200.	—	36.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 36

Sampling Time: 1018 Sampling Date: 10-3-96

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

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

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

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

CHEVRON WELL MONITORING DATA SHEET

Project #: 961003-L1	Station #: 9-6607
Sampler: LAD	Start Date: 10-3-96
Well I.D.: MW-4	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 20.27 After	Depth to Water: Before 5.08 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

1 Case Volume	x	Specified Volumes	=	gallons
9.7	x	3	=	29.1

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:
1028	65.4	7.3	2200.	—	10.	
1030	65.0	7.1	2200.	—	20.	
1033	65.0	7.0	2200.	—	30.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 30

Sampling Time: 1037	Sampling Date: 10-3-96
Sample I.D.: MW-4	Laboratory: SEQUOIA
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)	