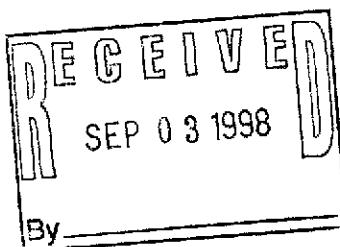




**Chevron**

September 2, 1998



**Chevron Products Company**  
6001 Bollinger Canyon Road  
Building L, Room 1110  
PO Box 6004  
San Ramon, CA 94583-0904

**Philip R. Briggs**  
Project Manager  
Site Assessment & Remediation  
Phone 925 842-9136  
Fax 925 842-8370

Mr. Larry Seto  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Re: Former Signal Service Station #S0800  
800 Center Street  
Oakland, California**

9-10-98  
Bl. well and another  
core letter - but will satisfy a  
q.u. sample was taken from MW5  
on 7-16-98

Dear Mr. Seto:

Enclosed is a copy of the Third Quarter Groundwater Monitoring report for 1998 that was prepared by our consultant Blaine Tech Services, Inc. for the above noted facility. Groundwater samples were analyzed for TPH-g, BTEX and MtBE constituents. Monitoring wells MW-2 and MW-7 are sampled annually (1st quarter) with wells MW-4 and MW-5 sampled semi-annually (1<sup>st</sup> & 3<sup>rd</sup> quarters). Wells MW-1, MW-3 and MW-6 are sampled quarterly.

In monitoring wells MW-4 and MW-6 the concentrations were below method detection limits for all the constituents. The benzene concentration increased in monitoring wells MW-1 and MW-3 from the previous sampling event. No sample was taken from well MW-5, as it was inaccessible.

The depth to ground water varied from 6.00 feet to 6.93 feet below grade with a direction of flow southwesterly.

You requested that bacteria counts be made of hydrocarbon-degraders, which are to be used in the review/recommendation to the Work Plan Chevron submitted, to address residual subsurface hydrocarbons at this site. The bacteria counts are noted as CUB in the Table of Well Data and Analytical Results.

September 2, 1998  
Mr. Larry Seto  
Former Signal Service Station #S0800  
Page 2

Chevron will continue to monitor the site based on the sampling frequency noted above. If you have any questions please call me at (925) 842-9136.

Sincerely,  
**CHEVRON PRODUCTS COMPANY**



Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

cc: Ms. Bette Owen, Chevron

Ms. Ann Payne, Chevron, V-1156

Mr. Terrell A. Sadler  
618 Brooklyn Avenue  
Oakland, CA. 94606

Mr. James Scott  
BPH, Inc.  
333 Hegenberger Road, Suite 209  
Oakland, CA 94621

Mr. Hollis Rodgers  
c/o Victor E. Brown, Esq.  
580 Grand Avenue  
Oakland, CA 94610

Mr. James Perkins, R.G., C.E.M.  
Pacific Environmental Group, Inc.  
2025 Gateway Place, Suite 440  
San Jose, CA 95110

**BLAINE**  
TECH SERVICES

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



August 24, 1998

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

### **3rd Quarter 1998 Monitoring at 206145 (S-800)**

Third Quarter 1998 Groundwater Monitoring at  
Former Chevron Service Station Number 206145  
800 Center St.  
Oakland, CA

Monitoring Performed on July 16 & August 4, 1998

---

#### **Groundwater Sampling Report 980716-P-1**

This report covers the routine 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.

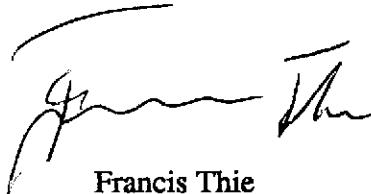
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater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

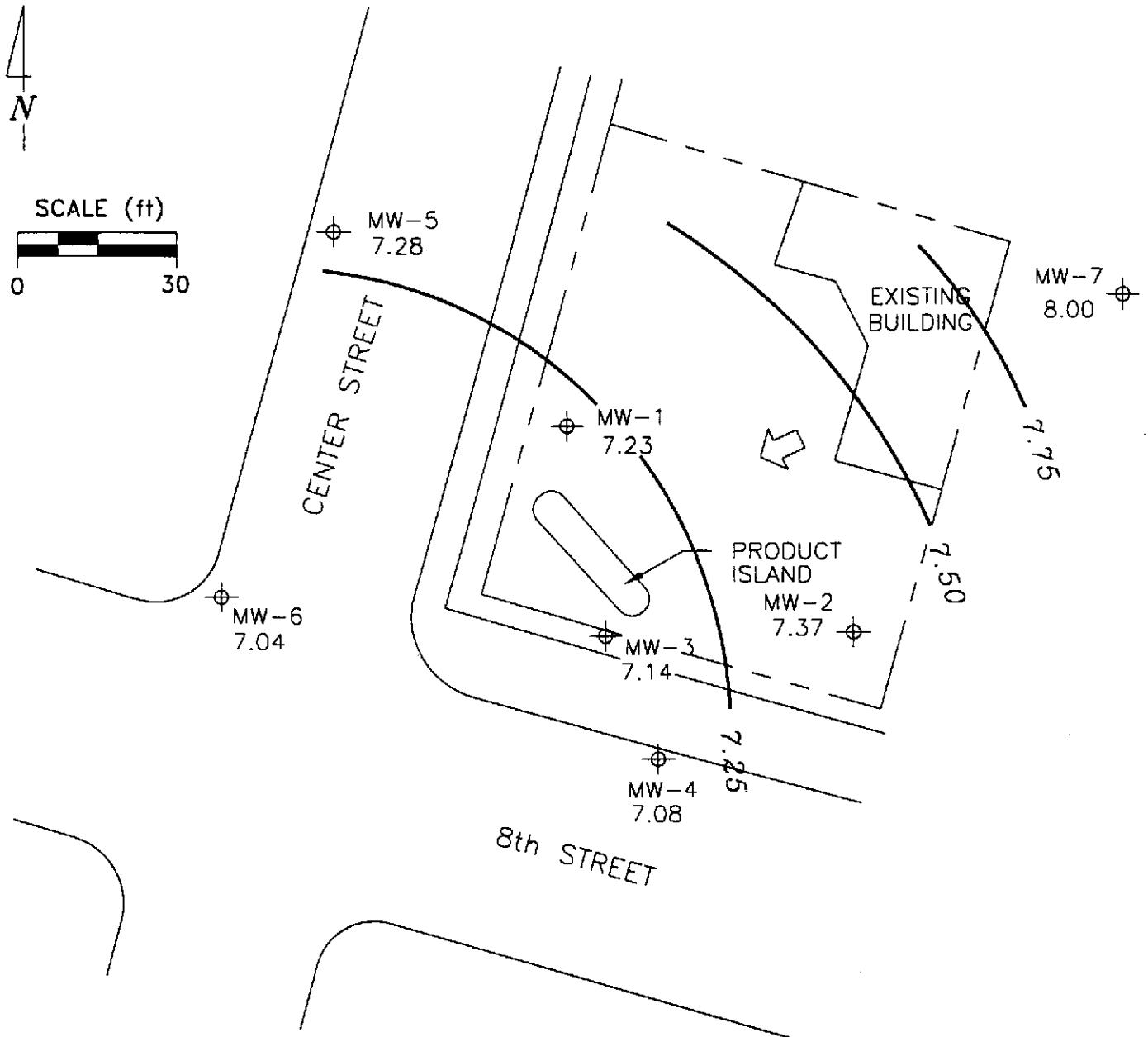


Francis Thie  
Vice President

FPT/ap

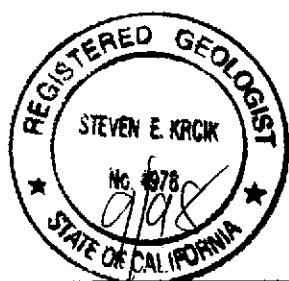
attachments: Professional Engineering Appendix  
Cumulative Table of Well Data and Analytical Results  
Analytical Appendix  
Field Data Sheets

# **Professional Engineering Appendix**



EXPLANATION

- MONITORING WELL
- 8.40 GROUNDWATER ELEVATION (FT, MSL)
- 8.50 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- ↗ APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.005
- NA - DATA NOT AVAILABLE



Basemap from Ron Archer Engineer Inc.

PREPARED BY

**RRM**  
engineering contracting firm

Former Signal Service Station 206145

800 Center Street  
Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP,  
JULY 16, 1998

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	MTBE	CUB (cfu/ml)
<b>MW-1</b>											
10/27/95	15.69	10.54	5.15	--	170,000	19,000	34,000	4800	26,000	--	--
02/20/97	15.64	8.96	6.68	--	18,000	870	3500	470	2100	<250	--
04/24/97	15.64	7.30	8.34	--	76,000	4600	16,000	1600	8300	1000	--
07/23/97	15.64	5.90	9.74	--	37,000	2700	8000	870	6100	<250	--
10/29/97	15.64	--	--	Inaccessible	--	--	--	--	--	--	--
01/28/98	15.64	9.30	6.34	--	10,000	380	2000	300	1500	<25	--
05/11/98	15.64	8.72	6.92	--	17,000	880	3100	380	2300	<250	--
07/16/98	15.64	7.23	8.41	--	29,000	2700	6800	890	3900	<1000	--
08/04/98	15.64	6.90	8.74	--	--	--	--	--	--	--	<1.0 x 10 <sup>4</sup>
<b>MW-2</b>											
10/27/95	15.77	10.60	5.17	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
02/20/97	15.72	8.51	7.21	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
04/24/97	15.72	7.82	7.90	--	83*	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/23/97	15.72	5.92	9.80	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
10/29/97	15.72	5.13	10.59	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
01/28/98	15.72	9.21	6.51	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/11/98	15.72	8.82	6.90	Sampled annually	--	--	--	--	--	--	--
07/16/98	15.72	7.37	8.35	--	--	--	--	--	--	--	--
08/04/98	15.72	7.03	8.69	--	--	--	--	--	--	--	1.9 x 10 <sup>4</sup>
<b>MW-3</b>											
10/27/95	15.46	10.37	5.09	--	33,000	11,000	1700	2300	4200	--	--
02/20/97	15.42	8.37	7.05	--	260	56	<1.0	7.6	5.9	<5.0	--
04/24/97	15.42	7.29	8.13	--	1400	310	28	76	75	74	--
07/23/97	15.42	5.84	9.58	--	37,000	10,000	1500	2700	4200	2500	--
10/29/97	15.42	5.09	10.33	--	53,000	12,000	1200	3000	3100	2500	--
01/28/98	15.42	8.94	6.48	--	210	43	1.5	1.7	3.9	10	--
05/11/98	15.42	8.49	6.93	--	59	11	<0.5	2.1	<0.5	<2.5	--
07/16/98	15.42	7.14	8.28	--	260	90	4.8	18	5.7	<10	--
08/04/98	15.42	6.88	8.54	--	--	--	--	--	--	--	8.5 x 10 <sup>4</sup>

\* 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	CUB (cfu/ml)
<b>MW-4</b>											
10/27/95	14.45	9.37	5.08	--	66	6.8	<0.5	<0.5	<0.5	--	--
02/20/97	14.40	8.12	6.28	--	54	<0.5	<0.5	<0.5	7.4	39	--
04/24/97	14.40	7.29	7.11	--	54	1.4	<0.5	0.65	3.0	100	--
07/23/97	14.40	5.80	8.60	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
10/29/97	14.40	5.74	8.66	Inaccessible	--	--	--	--	--	--	--
11/13/97	14.40	4.97	9.43	--	<50	<0.5	0.79	<0.5	<0.5	<2.5	--
01/28/98	14.40	8.88	5.52	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/11/98	14.40	8.40	6.00	Sampled biannually	--	--	--	--	--	--	--
07/16/98	14.40	7.08	7.32	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
08/04/98	14.40	6.28	8.12	--	--	--	--	--	--	--	$1.8 \times 10^4$
<b>MW-5</b>											
01/03/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
02/20/97	15.03	--	--	Inaccessible	--	--	--	--	--	--	--
04/24/97	15.03	--	--	Inaccessible	--	--	--	--	--	--	--
04/30/97	15.03	7.06	7.97	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/23/97	15.03	--	--	Inaccessible	--	--	--	--	--	--	--
10/29/97	15.03	--	--	Inaccessible	--	--	--	--	--	--	--
01/28/98	15.03	8.83	6.20	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/11/98	15.03	--	--	Inaccessible	--	--	--	--	--	--	--
07/16/98	15.03	7.28	7.75	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
08/04/98	15.03	--	--	Inaccessible	--	--	--	--	--	--	--
<b>MW-6</b>											
01/03/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
02/20/97	14.73	8.11	6.62	--	800	310	23	11	28	<12	--
04/24/97	14.73	7.13	7.60	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/23/97	14.73	5.73	9.00	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
10/29/97	14.73	4.98	9.75	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
01/28/98	14.73	8.19	6.54	--	160	38	<0.5	<0.5	<0.5	<2.5	--
05/11/98	14.73	8.08	6.65	--	1700	490	72	39	52	<25	--
07/16/98	14.73	7.04	7.69	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
08/04/98	14.73	6.89	7.84	--	--	--	--	--	--	--	$8.6 \times 10^3$

## 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-Benzeno	Xylene	MTBE	CUB (cfu/ml)
<b>MW-7</b>											
01/03/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
02/20/97	16.36	8.86	7.50	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
04/24/97	16.36	7.59	8.77	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/23/97	16.36	6.09	10.27	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
10/29/97	16.36	5.28	11.08	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
01/28/98	16.36	9.10	7.26	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/11/98	16.36	9.11	7.25	Sampled annually	--	--	--	--	--	--	--
07/16/98	16.36	8.00	8.36	--	--	--	--	--	--	--	--
08/04/98	16.36	7.32	9.04	--	--	--	--	--	--	--	$1.5 \times 10^3$
<b>TRIP BLANK</b>											
02/20/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
04/24/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/23/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
10/29/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
01/28/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/11/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/16/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on February 20, 1997.  
 Earlier field data and analytical results are drawn from the January 24, 1997 Groundwater Technology, Inc. report.

### ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl t-Butyl Ether

ND = Not detected at or above the minimum quantitation limit. See laboratory reports for minimum quantitation limits.

CUB = Contaminant Utilizing Bacteria

# **Analytical Appendix**



# Sequoia Analytical

680 Chesapeake Drive	Redwood City, CA 94063	(650) 364-9600	FAX (650) 364-9233
404 N. Wiger Lane	Walnut Creek, CA 94598	(925) 988-9600	FAX (925) 988-9673
819 Striker Avenue, Suite 8	Sacramento, CA 95834	(916) 921-9600	FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D	Petaluma, CA 94954	(707) 792-1865	FAX (707) 792-0342

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

Client Proj. ID: Chevron 206145/980716-P1  
Sample Descript: MW-1  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9807A86-01

Sampled: 07/16/98  
Received: 07/17/98  
  
Analyzed: 07/30/98  
Reported: 08/05/98

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	29000
Methyl t-Butyl Ether	1000	N.D.
Benzene	100	2700
Toluene	100	6800
Ethyl Benzene	100	890
Xylenes (Total)	100	3900
Chromatogram Pattern:		GAS
Surrogates		Control Limits %
Trifluorotoluene		70 130
		% Recovery
		89

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

**SEQUOIA ANALYTICAL - ELAP #1624**

  
Mike Gregory  
Project Manager

Page:

1



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

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Attention: Fran Thie

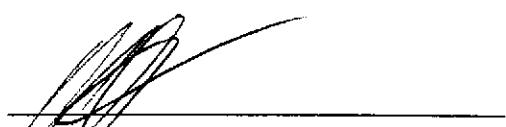
Client Proj. ID: Chevron 206145/980716-P1  
Sample Descript: MW-3  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9807A86-02

Sampled: 07/16/98  
Received: 07/17/98  
  
Analyzed: 07/30/98  
Reported: 08/05/98

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	.....	100
Methyl t-Butyl Ether	.....	10
Benzene	.....	1.0
Toluene	.....	1.0
Ethyl Benzene	.....	1.0
Xylenes (Total)	.....	1.0
Chromatogram Pattern:	.....	GAS
Surrogates		Control Limits %
Trifluorotoluene		70 130
		% Recovery
		89

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

**SEQUOIA ANALYTICAL - ELAP #1624**

  
Mike Gregory  
Project Manager



# Sequoia Analytical

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404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
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FAX (650) 364-9233  
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FAX (916) 921-0100  
FAX (707) 792-0342

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

Client Proj. ID: Chevron 206145/980716-P1  
Sample Descript: MW-4  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9807A86-03

Sampled: 07/16/98  
Received: 07/17/98  
  
Analyzed: 07/29/98  
Reported: 08/05/98

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	5.0	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	87

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

**SEQUOIA ANALYTICAL - ELAP #1624**

  
Mike Gregory  
Project Manager



# Sequoia Analytical

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819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
  
Attention: Fran Thie

Client Proj. ID: Chevron 206145/980716-P1  
Sample Descript: MW-5  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9807A86-04

Sampled: 07/16/98  
Received: 07/17/98  
  
Analyzed: 07/29/98  
Reported: 08/05/98

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	5.0	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	92

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

**SEQUOIA ANALYTICAL** - ELAP #1624

  
Mike Gregory  
Project Manager



**Sequoia  
Analytical**

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404 N. Wiget Lane  
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FAX (916) 921-0100  
FAX (707) 792-0342

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

Client Proj. ID: Chevron 206145/980716-P1  
Sample Descript: MW-6  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9807A86-05

Sampled: 07/16/98  
Received: 07/17/98  
  
Analyzed: 07/29/98  
Reported: 08/05/98

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	5.0	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	86

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

**SEQUOIA ANALYTICAL - ELAP #1624**

  
Mike Gregory  
Project Manager

Page:

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# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

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

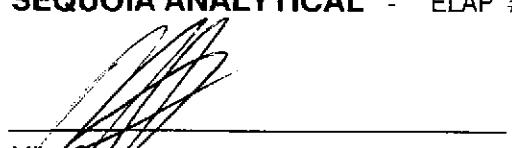
Client Proj. ID: Chevron 206145/980716-P1  
Sample Descript: TB  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9807A86-06

Sampled: 07/16/98  
Received: 07/17/98  
  
Analyzed: 07/29/98  
Reported: 08/05/98

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	5.0	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	90

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

**SEQUOIA ANALYTICAL - ELAP #1624**

  
Mike Gregory  
Project Manager

Page:

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**Sequoia  
Analytical**

680 Chesapeake Drive  
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(916) 921-9600      FAX (916) 921-0100  
(707) 792-1865      FAX (707) 792-0342

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

Client Proj. ID: Chevron 206145/980716-P1

Received: 07/17/98

Lab Proj. ID: 9807A86

Reported: 08/05/98

## LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 10 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

### TPH-GAS/BTEX:

Sample 9807A86-01 was diluted 200-fold.

Sample 9807A86-02 was diluted 2-fold.

**SEQUOIA ANALYTICAL**

Mike Gregory  
Project Manager

Page: 1



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
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1455 McDowell Blvd. North, Ste. D

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FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

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

Client Project ID: Chevron 206145 / 980716-P1  
Matrix: Liquid

Work Order #: 9807A86 -03-06

Reported: Aug 5, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE
QC Batch#:	8070381	8070381	8070381	8070381	8070381
Analy. Method:	EPA 5030B	EPA 5030B	EPA 5030B	EPA 5030B	EPA 5030B
Prep. Method:	N/A	N/A	N/A	N/A	N/A

Analyst:	R. Bobel				
MS/MSD #:	BLK072998	BLK072998	BLK072998	BLK072998	BLK072998
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/29/98	7/29/98	7/29/98	7/29/98	7/29/98
Analyzed Date:	7/29/98	7/29/98	7/29/98	7/29/98	7/29/98
Instrument I.D. #:	-	-	-	-	-
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	10 µg/L
<b>Result:</b>	10.2	9.66	10.2	30.2	12.3
<b>MS % Recovery:</b>	102	96.6	102	101	123
<b>Dup. Result:</b>	9.07	8.41	8.52	26	11.2
<b>MSD % Recov.:</b>	90.7	84.1	85.2	86.7	112
<b>RPD:</b>	11.7	13.8	17.9	14.9	9.4
<b>RPD Limit:</b>	0-25	0-25	0-25	0-25	0-25

LCS #:	LCS072998	LCS072998	LCS072998	LCS072998	LCS072998
Prepared Date:	7/29/98	7/29/98	7/29/98	7/29/98	7/29/98
Analyzed Date:	7/29/98	7/29/98	7/29/98	7/29/98	7/29/98
Instrument I.D. #:	-	-	-	-	-
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	10 µg/L
<b>LCS Result:</b>	9.55	9.04	8.82	26.4	10.8
<b>LCS % Recov.:</b>	95.5	90.4	88.2	88	108

<b>MS/MSD</b>	60-140	60-140	60-140	60-140	60-140
<b>LCS</b>	70-130	70-130	70-130	70-130	70-130
<b>Control Limits</b>					

**SEQUOIA ANALYTICAL**  
**Elap #1624**

Mike Gregory  
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.



**Sequoia  
Analytical**

680 Chesapeake Drive 404 N. Wiger Lane 819 Striker Avenue, Suite 8 1455 McDowell Blvd. North, Ste. D	Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954	(650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865	FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342
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Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Chevron 206145 / 980716-P1  
Matrix: Liquid

Work Order #: 9807A86-01-02

Reported: Aug 5, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE
QC Batch#:	8070394	8070394	8070394	8070394	8070394
Analy. Method:	EPA 5030B	EPA 5030B	EPA 5030B	EPA 5030B	EPA 5030B
Prep. Method:	N/A	N/A	N/A	N/A	N/A

Analyst:	R. Bobel				
MS/MSD #:	BLK073098	BLK073098	BLK073098	BLK073098	BLK073098
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/30/98	7/30/98	7/30/98	7/30/98	7/30/98
Analyzed Date:	7/30/98	7/30/98	7/30/98	7/30/98	7/30/98
Instrument I.D. #:	-	-	-	-	-
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	10 µg/L
Result:	9.64	9.16	8.95	27	11.5
MS % Recovery:	96.4	91.6	89.5	90	115
Dup. Result:	10	9.47	9.25	27.9	12.7
MSD % Recov.:	100	94.7	92.5	93	127
RPD:	3.7	3.3	3.3	3.3	9.9
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	LCS073098	LCS073098	LCS073098	LCS073098	LCS073098
Prepared Date:	7/30/98	7/30/98	7/30/98	7/30/98	7/30/98
Analyzed Date:	7/30/98	7/30/98	7/30/98	7/30/98	7/30/98
Instrument I.D. #:	-	-	-	-	-
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	10 µg/L
LCS Result:	9.8	9.37	9.21	27.5	10.6
LCS % Recov.:	98	93.7	92.1	91.7	106

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

**SEQUOIA ANALYTICAL**  
Elap #1624

Mike Gregory  
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

9807A86.BLA <2>

## Chain-of-Custody-Reco

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

Chevron Facility Number 206145  
Facility Address 800 Center St., Oakland, CA  
Consultant Project Number \_\_\_\_\_  
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 9013363  
Samples Collected by (Name) \_\_\_\_\_  
Collection Date 7-16-98  
Signature DRC

Sample Number	Lab Sample Number	Number of Containers	Method S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Dissolve	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										DO NOT BILL FOR TB-LB	Remarks
								STEX + TH GAS (5010 + 5015) <u>X</u>	TPH Diesel (8015)	Oil and Grease (5520)	Potentially Halogenated (8015)	Possible Aromatic (8020)	Flammable Organics (8220)	Extractive Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICP or AA)				
MW-1	3 W	3	S	G	9:41		X												
MW-3	3 S	3	S	G	9:05		X												
MW-4	3 S	3	S	G	8:15		X												
MW-5	3 S	3	S	G	8:45		X												
MW-6	3 S	3	S	G	9:22		X												
TB	2 S	2	S	G			X											J 17 1 30	

Relinquished By (Signature)

Organization

Date/Time  
7/16/98 16:00

Received By (Signature)

Organization

Date/Time  
7/17/98

Turn Around Time (Circle Choice)

24 Hrs.

48 Hrs.

5 Days

10 Days

As Contracted

Relinquished By (Signature)

Organization

Date/Time  
7/17/98

Received By (Signature)

Organization

Date/Time

Relinquished By (Signature)

Organization

Date/Time

Received For Laboratory By (Signature)

Date/Time  
7/17/98



August 13, 1998

**Client:** Sequoia Analytical  
**Contact:** Mike Gregory

**Project Description/Code:** 9808168  
**Tel:** 650-364-9600 **Fax:** 650-364-9233

**SAMPLES:** Six water samples were received on 8/6/98. The samples were stored at 4°C until assayed on 8/6/98.

### Hydrocarbon-Degrading Bacteria Enumeration Assays

**ANALYSIS REQUEST:** Bacterial enumeration for total petroleum hydrocarbon-degraders (broad range petroleum hydrocarbons: diesel and jet fuel) in water.

**CARBON SOURCE:** Petroleum hydrocarbons were added as the sole carbon and energy sources for the growth of hydrocarbon-degrading aerobic bacteria on agar plates. Diesel (Chevron #2) and JP-4 Jet Fuel were blended in a 50:50 ratio and dissolved into the agar to provide aliphatic and aromatic hydrocarbons in the growth matrix.

#### PROTOCOLS:

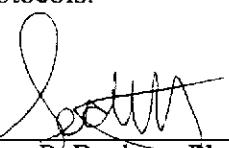
**Hydrocarbon Degraders:** Sterile agar plates (100 x 15 mm) were prepared with minimal salts medium at pH 6.8 with 1.5% noble agar, without any other carbon sources or nutrients added. Plates were inoculated with 1.0 ml of sample or a log dilution of each water sample. Triplicate plates were inoculated with sample log dilutions of  $10^0$ ,  $10^{-1}$ , and  $10^{-2}$ . The hydrocarbon plates were poured on 8/6/98 and counted after 7 days on 8/13/98. The plate count data are reported as colony forming units (**cfu**) per milliliter (ml) of sample. Each bacteria population value represents a statistical average of the plate count data obtained with inoculations for two of the four log dilutions tested.

## Hydrocarbon-Degrading Bacteria Enumeration Results

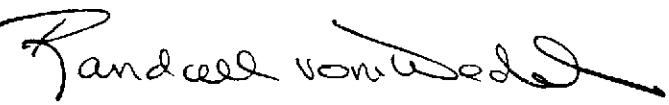
CLIENT SAMPLE NUMBER	SAMPLE DATE	HYDROCARBON DEGRADERS (cfu/ml)
MW-1	8/4/98	<1.0 x 10 <sup>1</sup>
MW-2	8/4/98	1.9 x 10 <sup>1</sup>
MW-3	8/4/98	8.5 x 10 <sup>2</sup>
MW-4	8/4/98	1.8 x 10 <sup>4</sup>
MW-6	8/4/98	8.6 x 10 <sup>3</sup>
MW-7	8/4/98	1.5 x 10 <sup>3</sup>

1.0 x 10<sup>1</sup> cfu/ml is the lowest detection level for this assay.

Bacterial enumerations were performed by Dr. Sean P. Bushart. CytoCulture is available on a consulting basis to assist in the interpretation of these data and their application to field remediation protocols.



Sean P. Bushart, Ph.D.  
Laboratory Services

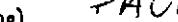


Randall von Wedel, Ph.D.  
Principal, Director of Research

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

206145  
Chevron Facility Number 206145  
Facility Address 800 Center St., Oakland, CA  
Consultant Project Number 980804-PZ  
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

~~UNIVERSITY OF CUSTODY~~

Chevron Contact (Name)	Phil Briggs
(Phone)	(510) 842-9136
Laboratory Name	Sequoia
Laboratory Release Number	9013363
Samples Collected by (Name)	PAUL SAWYER
Collection Date	8-4-98
Signature	

~~Relinquished By (Signature)~~

Organization

Date/Time  
4/25 17:00

Resolved By (Signature)

### Organization

Date/Time  
5/8/78 0913

**Turn Around Time (Circle Choice)**

24 May

48 Hsu

5 Days

10 Days

**As Contracted**

Reinspected By (Signature)

## Organzellen

**Date/Time**

Received By (Signature)

Regime.

第八節

24 May.

48 Hsu

5 Days

10 Days

Balwant Singh (Signature)

Page 10

8-1-07

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**SUB-CHAIN OF CUSTODY**

SEQUOIA ANALYTICAL  
680 CHESAPEAKE DRIVE  
REDWOOD CITY, CA 94063  
TEL 415-364-9600 FAX 415-364-9233

PROJECT SUBBED TO:

## Cytoculture

TAT REQUESTED: 

	24H	SD
	48H	10D
/ /	72H	

DUE DATE: 8/17/10

**REPORT TO**

n-Gresort

**WORKORDER #**

9808168

FRACTION NUMBER	SAMPLE DESCRIPTION
--------------------	-----------------------

**PROJECT NAME**

FRACTION NUMBER	SAMPLE DESCRIPTION	MATRIX	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	TESTS	REMARKS
01	HW-1	L	1	Vog	8/4	+	Contaminated
02	-2					+	utilizing
03	-3					+	Bacteria
04	-4					+	
05	-5					+	
06	-7					+	

REINQUISITION FROM SEQUOIA BY: DATE TIME

RECEIVED BY

**DATE**      **TIME**

SAMPLE  
CONDITION?

*E. C. Frazee*

8-5-98

TEMP?

**RELINQUISHED BY:**

**DATE**      **TIME**

RECEIVED BY

DATE      TIME

REINQUISITION BY

**DATE**      **TIME**

RECEIVED BY

DATE      TIME

# **Field Data Sheets**

## WELL GAUGING DATA

Project # 980804-P2 Date 8-4-98 Client Chesapeake

Site 800 Oaken St Oakland

# CHEVRON WELL MONITORING DATA SHEET

Project #:	980804-PZ		Station #:	S-880	
Sampler:	PAUL		Date:	8-4-98	
Well I.D.:	mw - 1		Well Diameter:	(2) 3 4 6 8	
Total Well Depth:	13.44		Depth to Water:	8.74	
Depth to Free Product:			Thickness of Free Product (feet):		
Referenced to:	PVC	Grade	D.O. Meter (if req'd):	YSI	HACH

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

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

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

$$\frac{1}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{3}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
13:52	69.7	7.4	450	1	
13:55	69.4	7.2	900	2	
13:57	68.8	7.2	350	3	

Did well dewater? Yes  No Gallons actually evacuated: 3

Sampling Time: 14:02 Sampling Date: 8-4-98

Sample I.D.: mw - 1 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 #: 980804-P2	Station #: 5-800
Sampler: PAUL	Date: 8-4-98
Well I.D.: mw-2	Well Diameter: (2) 3 4 6 8
Total Well Depth: 13.25	Depth to Water: 8.69
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	Grade D.O. Meter (if req'd): YSI HACH

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

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

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

$$\frac{.75}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{2.25}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
12:06	71.6	7.2	1000	.25	
12:08	70.4	7.1	900	1.5	
12:09	69.8	6.9	800	2.25	

Did well dewater? Yes  Gallons actually evacuated: 2.25

Sampling Time: 12:13 Sampling Date: 8-4-98

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

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

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

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

# CHEVRON WELL MONITORING DATA SHEET

Project #:	980804-P2	Station #:	S-800				
Sampler:	DAVL	Date:	8-4-98				
Well I.D.:	mw-3	Well Diameter:	(2)	3	4	6	8
Total Well Depth:	14.25	Depth to Water:	8.54				
Depth to Free Product:	<del>14.25</del>	Thickness of Free Product (feet):					
Referenced to:	PVC	Grade	D.O. Meter (if req'd):	YSI	HACH		

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

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

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

$$\frac{1}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{3}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
13-07	71.4	6.6	1300	1	odor
13-09	70.6	6.9	1200	2	etc "
13-12	69.8	7.0	1100	3	etc "

Did well dewater? Yes  No Gallons actually evacuated: 3

Sampling Time: 13:17 Sampling Date: 8-4-98

Sample I.D.: mw-3 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 #:	180804-P'		Station #:	S-800	
Sampler:	PAUL		Date:	8-4-98	
Well I.D.:	MW-4		Well Diameter:	(2)	3 4 6 8
Total Well Depth:	13.93		Depth to Water:	8.12	
Depth to Free Product:			Thickness of Free Product (feet):		
Referenced to:	PVC	Grade	D.O. Meter (if req'd):	YSI	HACH

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

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

$$\frac{1}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{3}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
12:37	69.4	7.4	800	1	
12:39	69.2	7.4	800	2	
12:41	68.6	7.3	750	3	

Did well dewater? Yes  No      Gallons actually evacuated: 3

Sampling Time: 12:43      Sampling Date: 8-4-98

Sample I.D.: MW-4      Laboratory: Sequoia GTEL

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

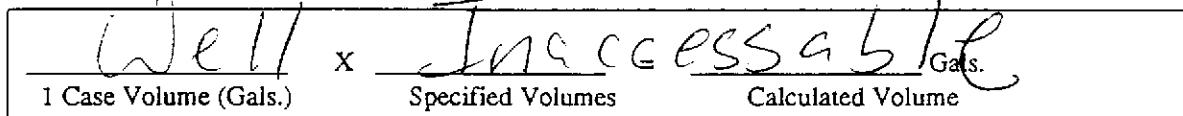
# CHEVRON WELL MONITORING DATA SHEET

Project #: 980804 - D2	Station #: S-800		
Sampler: PAUL	Date: 8-4-98		
Well I.D.: mw - 5	Well Diameter: (2) 3 4 6 8		
Total Well Depth:	Depth to Water:		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH

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

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

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_



Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
				/	/
				/	/
		/		/	/
		/		/	/
		/		/	/

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date:

Sample I.D.: mw - 5 Laboratory: Sequoia GTEL N. Creek Assoc. Labs

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

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

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

# CHEVRON WELL MONITORING DATA SHEET

Project #:	980804-P2	Station #:	S-800				
Sampler:	PAL	Date:	8-4-98				
Well I.D.:	MW-6	Well Diameter:	( <u>2</u> )	3	4	6	8
Total Well Depth:	19.65	Depth to Water:	7.84				
Depth to Free Product:		Thickness of Free Product (feet):					
Referenced to:	PVC	Grade	D.O. Meter (if req'd):	YSI	HACH		

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

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

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

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

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
13:28	68.4	7.0	800	1.5	
13:30	67.8	7.0	950	3.0	
13:32	67.2	6.9	700	4.5	

Did well dewater? Yes  No Gallons actually evacuated: 4.5

Sampling Time: 13:36 Sampling Date: 8-4-98

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

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

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

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

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

# CHEVRON WELL MONITORING DATA SHEET

Project #:	980304-02		Station #:	S-800					
Sampler:	PAUL		Date:	8-4-98					
Well I.D.:	MW-7		Well Diameter:	(2)	3	4	6	8	_____
Total Well Depth:	18.30		Depth to Water:	9.04					
Depth to Free Product:			Thickness of Free Product (feet):						
Referenced to:	PVC	Grade	D.O. Meter (if req'd):	YSI	HACH				

Well Diameter	Multiplier	Well Diameter	Multipplier
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  
 Middleburg  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

$$\frac{1.7}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{4.5}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
12:46	72.6	7.0	470	1.5	
12:48	71.8	7.0	500	3.0	
12:50	70.2	6.9	650	4.5	

Did well dewater? Yes  No Gallons actually evacuated: 4.5

Sampling Time: 12:55      Sampling Date: 8-4-98

Sample I.D.: MW-7      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
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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## WELL GAUGING DATA

Project # 980716-P1 Date 7-16-98 Client Chesron

Site 800 Center St. Oakland CA

# CHEVRON WELL MONITORING DATA SHEET

Project #: 980716-P'	Station #: S-800
Sampler: <u>Polar</u>	Date: 7-16-98
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth: 13.46	Depth to Water: 8.41
Depth to Free Product: 13.46	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH

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

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

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

$$\frac{1}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{3}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
9:33	67.4	7.4	700	1	
9:35	66.8	7.2	600	2	
9:37	66.4	7.2	500	3	

Did well dewater? Yes  No Gallons actually evacuated: 3

Sampling Time: 9:41 Sampling Date: 7-16-98

Sample I.D.: MW-1 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
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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# CHEVRON WELL MONITORING DATA SHEET

Project #:	990716-P1		Station #:	5-800				
Sampler:	PAVL		Date:	7-16-98				
Well I.D.:	MW-3		Well Diameter:	2	3	4	6	8
Total Well Depth:	14.25		Depth to Water:	8.28				
Depth to Free Product:			Thickness of Free Product (feet):					
Referenced to:	PVC	Grade	D.O. Meter (if req'd):	YSI	HACH			

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

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

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

1.0	x	3	=	3.0	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
8:56	68.4	6.9	1000	1	
9:58	67.6	7.0	1000	2	
9:00	67.4	7.0	1000	3	

Did well dewater? Yes  No Gallons actually evacuated: 3.0

Sampling Time: 9:05 Sampling Date: 7-16-98

Sample I.D.: MW-3 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 #:	980716 P1	Station #:	S-800				
Sampler:	DARL	Date:	7-16-98				
Well I.D.:	MW-4	Well Diameter:	(2	3	4	6	8
Total Well Depth:	13.46	Depth to Water:	7.32				
Depth to Free Product:		Thickness of Free Product (feet):					
Referenced to:	PVC	Grade	D.O. Meter (if req'd):		YSI	HACH	

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

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

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

$$\begin{array}{c}
 1.0 \quad \times \quad 3 = 3.0 \text{ Gals.} \\
 \hline
 \text{1 Case Volume (Gals.)} \qquad \text{Specified Volumes} \qquad \text{Calculated Volume}
 \end{array}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
8:09	66.4	7.4	700	1	error
8:10	65.2	7.4	800	2	" "
8:12	64.7	7.3	800	3	" "

Did well dewater? Yes  No Gallons actually evacuated: 3

Sampling Time: 8:15 Sampling Date: 7-16-98

Sample I.D.: MW-4 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 #: 780716 - P1	Station #: S-800	
Sampler: PAUL	Date: 7-16-98	
Well I.D.: MW-S	Well Diameter: (2) 3 4 6 8	
Total Well Depth: 19.10	Depth to Water: 7.75	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH

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

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

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

$$\frac{2}{1 \text{ Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{6}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
8:35	65.8	7.1	1000	2	
8:38	65.2	7.0	1000	4	
8:40	64.6	7.0	1000	6	

Did well dewater? Yes  No Gallons actually evacuated: 6.0

Sampling Time: 8:45 Sampling Date: 7-16-98

Sample I.D.: MW-S 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
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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# CHEVRON WELL MONITORING DATA SHEET

Project #: 980716-p1	Station #: 8-500 5-800
Sampler: DHW	Date: 7-16-98
Well I.D.: MW-6	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 19.65	Depth to Water: 7.69
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH

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

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

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

$$\frac{2.0}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{6.0}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
9:12	68.4	7.4	800	2	
9:15	67.2	7.4	900	4	
9:17	66.8	7.3	1000	6	

Did well dewater? Yes  No Gallons actually evacuated: 6

Sampling Time: 9:22 Sampling Date: 7-16-98

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

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

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

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