



Chevron

#541  
Chevron U.S.A. Products Company  
6001 Bollinger Canyon Rd. Bldg. L  
P. O. Box 6004  
San Ramon, CA 94583-0804

Site Assessment and  
Remediation Group  
Phone (510) 842-9500  
Fax (510) 842-8370

Date: 1-17-00

To: Distribution

Re: Groundwater Monitoring Report, 9-1851

The enclosed groundwater monitoring report has been properly reviewed by a Chevron authorized representative. Agency guidelines have been followed. Blaine Tech Services is authorized to distribute the report directly to interested parties.

If you have any questions, please call me at (510) 842-8695.

Sincerely,

*Brett L. Hunter*

Brett Hunter  
Site Assessment and Remediation  
Project Manager

9:2 PM 2-8-00

HOLLOWBUD  
TWININGIANA

**BLAINE**  
TECH SERVICES INC.

1680 ROGERS AVENUE  
SAN JOSE, CALIFORNIA 95112-1105  
(408) 573-7771 FAX  
(408) 573-0555 PHONE



January 17, 2000

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

#### **4th Quarter 1999 Monitoring at 9-1851**

Fourth Quarter 1999 Groundwater Monitoring at  
Chevron Service Station Number 9-1851  
451 Hegenberger Rd.  
Oakland, CA

Monitoring Performed on December 8, 1999

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#### **Groundwater Sampling Report 991208-Y-3**

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,



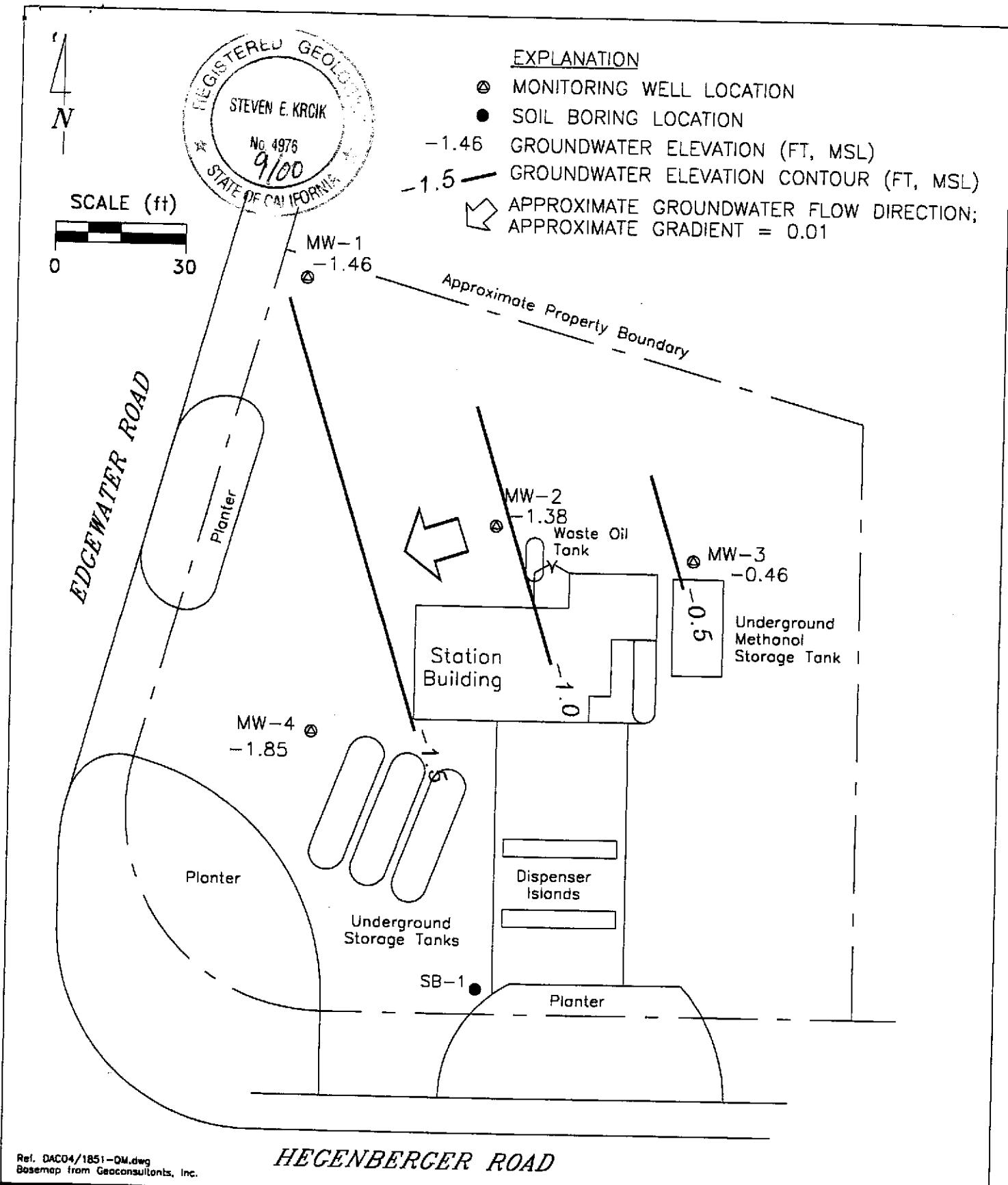
Scott Boor  
Project Coordinator

SDB/jh

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

cc: Barney Chan, Alameda County Health Care Services, Dept. of Environmental Health  
Ben Shimek  
Greg Gurss, Gettler-Ryan, Inc.

# **Professional Engineering Appendix**



PREPARED BY	Chevron Station 9-1851 451 Hegenberger Road Oakland, California	FIGURE: 7 PROJECT: DAC04
<b>RRM</b> engineering contracting firm	GROUNDWATER ELEVATION CONTOUR MAP, DECEMBER 8, 1999	

# **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	Benzene by (EPA 8240)	Xylene by (EPA 8240)	C-1,2- DCE	Carbon Disulfide	Vinyl Chloride	MTBE
<b>MW-1</b>																	
10/17/95	2.61	-1.51	4.12	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	
03/29/96	2.61	-0.72	3.33	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	9.5	
06/26/96	2.61	-1.23	3.84	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	46	
09/25/96	2.61	-1.41	4.02	--	<250	<2.5	<2.5	<2.5	<2.5	--	--	--	--	--	--	940	
12/17/96	2.61	-0.96	3.57	--	<50	0.86	<0.5	<0.5	<0.5	--	--	--	--	--	--	940	
03/20/97	2.61	-1.54	4.15	--	<50	<2.0	<2.0	<2.0	<2.0	--	--	--	--	--	--	260	
06/20/97	2.61	-1.72	4.33	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	76	
09/09/97	2.61	-1.74	4.35	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	64	
12/12/97	2.61	-0.39	3.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	110	
02/19/98	2.61	0.78	1.83	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	27	
06/23/98	2.61	-0.73	3.34	*	210	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	14	
08/31/98	2.61	-0.88	3.49	*	1400	630	<5.0	<5.0	<5.0	--	--	--	--	--	--	3400	
12/29/98	2.61	-1.22	3.83	--	<500	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	16,000	
03/11/99	2.61	-0.43	3.04	*	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	1090	
06/24/99	2.61	-0.77	3.38	*	<500	65.7	<5.0	<5.0	<5.0	--	--	--	--	--	--	33.9	
09/29/99	2.61	-1.01	3.62	--	81.7	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	1160	
12/08/99	2.61	-1.46	4.07	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	1130	
																233	

\* See Table of Additional Analyses

## 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	Benzene by (EPA 8240)	Xylene by (EPA 8240)	C-1,2- DCE	Carbon Disulfide	Vinyl Chloride	MTBE
<b>MW-2</b>																	
10/17/95	3.51	-1.82	5.33	*	170	3.5	<0.5	1.0	6.1	5000	600**	--	--	11	--	--	
03/29/96	3.51	-0.44	3.95	--	89	4.7	<0.5	0.64	0.74	--	000**	11	2.5	17	--	5.4	21
06/26/96	3.51	-1.09	4.60	--	80	8.7	<0.5	1.2	1.3	--	000**	11	<2.0	15	--	12	31
09/25/96	3.51	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--
12/17/96	3.51	-0.41	3.92	--	110	<0.5	<0.5	0.75	2.1	--	400**	10	<2.0	2.3	--	5.5	27
03/20/97	3.51	-1.32	4.83	--	140	8.2	<2.0	<2.0	<2.0	--	400**	--	--	<2.0	--	3.2	58
06/20/97	3.51	-1.53	5.04	--	62	7.7	<0.5	<0.5	<0.5	--	600**	7.2	<2.0	4.6	2.2	5.2	38
09/09/97	3.51	-1.47	4.98	--	190	9.4	<0.5	<0.5	0.86	--	82**	11	<2.0	<2.0	<2.0	<2.0	48
12/12/97	3.51	-0.40	3.91	--	180	1.8	<0.5	<0.5	3.2	--	500**	<2.0	<2.0	<2.0	<2.0	<2.0	34
02/19/98	3.51	0.55	2.96	--	<100	1.8	<1.0	<1.0	<1.0	--	800**	<3.3	<3.3	<3.3	<3.3	<3.3	230
06/23/98	3.51	-0.54	4.05	***	60	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	55
08/31/98	3.51	-0.80	4.31	--	61	2.2	<0.5	<0.5	1.1	--	--	--	--	--	--	--	53
12/29/98	3.51	-1.12	4.63	--	54	1.32	<0.5	<0.5	0.752	--	--	--	--	--	--	--	38.1
03/11/99	3.51	-0.01	3.52	***	648	2.88	<2.0	<2.0	<2.0	--	--	--	--	--	--	--	73.2
06/24/99	3.51	-0.49	4.00	***	264	0.575	<0.5	1.01	<0.5	--	--	--	--	--	--	--	44.1
09/29/99	3.51	-0.93	4.44	--	54.3	0.662	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	35.7
12/08/99	3.51	-1.38	4.89	--	<50	1.27	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	56.9

\* Results of EPA 8010 test indicates that the detection of 1,1-Dichloroethane is 1.7 ppb.

\*\* Chromatogram pattern indicates an unidentified hydrocarbon.

\*\*\* See Table of Additional Analyses.

## 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	Benzene (EPA 8240)	Xylene (EPA 8240)	C-1,2-DCE	Carbon Disulfide	Vinyl Chloride	MTBE
<b>MW-3</b>																	
10/17/95	3.08	-1.34	4.42	***	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	
03/29/96	3.08	0.08	3.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	26	
06/26/96	3.08	-0.52	3.60	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	47	
09/25/96	3.08	-1.06	4.14	--	<125	<1.2	<1.2	<1.2	<1.2	--	--	--	--	--	--	570	
12/17/96	3.08	-0.12	3.20	--	<500	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	680	
03/20/97	3.08	-0.22	3.30	--	<50	<5.7	<5.7	<5.7	<5.7	--	--	--	--	--	--	430	
06/20/97	3.08	-0.78	3.86	--	<500	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	1400	
09/09/97	3.08	-1.11	4.19	--	76**	22	<0.5	<0.5	<0.5	--	--	--	--	--	--	920	
12/12/97	3.08	0.12	2.96	--	52	15	<0.5	<0.5	<0.5	--	--	--	--	--	--	710	
02/19/98	3.08	0.86	2.22	--	<50	6.6	<0.5	<0.5	<0.5	--	--	--	--	--	--	380	
06/23/98	3.08	-0.17	3.25	*	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	390	
08/31/98	3.08	-0.78	3.86	--	<50	19	<0.5	<0.5	<0.5	--	--	--	--	--	--	830	
12/29/98	3.08	-0.45	3.53	--	<250	<2.5	<2.5	<2.5	<2.5	--	--	--	--	--	--	416	
03/11/99	3.08	-0.27	3.35	*	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	262	
06/24/99	3.08	-0.53	3.61	*	<50	12.8	<0.5	<0.5	<0.5	--	--	--	--	--	--	620	
09/29/99	3.08	-0.87	3.95	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	2840	
12/08/99	3.08	-0.46	3.54	--	73.4	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	1620	

*How did MTBE get here?*

\* See Table of Additional Analyses

\*\* Chromatogram pattern indicates an unidentified hydrocarbon.

\*\*\* Results of EPA 8015 test indicates that levels of Methanol and Methyl ethyl ketone are respectively <1000 and <200 ppb.

## 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	Benzene (EPA 8240)	Xylene (EPA 8240)	C-1,2- DCE	Carbon Disulfide	Vinyl Chloride	MTBE
<b>MW-4</b>																	
10/17/95	3.48	-1.60	5.08	--	<125	<1.2	<1.2	<1.2	<1.2	--	--	--	--	--	--	--	
03/29/96	3.48	-1.13	4.61	--	<1000	<10	<10	<10	<10	--	--	--	--	--	--	6700	
06/26/96	3.48	-0.82	4.30	--	<2000	<20	<20	<20	<20	--	--	--	--	--	--	7200	
09/25/96	3.48	-1.85	5.33	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
12/17/96	3.48	0.67	2.81	--	<2000	120	<20	<20	<20	--	--	--	--	--	--	11,000	
03/20/97	3.48	-1.02	4.50	--	250**	<2.0	<2.0	<2.0	<2.0	--	--	--	--	--	--	10,000	
03/20/97	3.48	-1.02	4.50	Conf. run	--	--	--	--	--	--	--	--	--	--	--	8600	
06/20/97	3.48	-2.20	5.68	--	<2500	<25	<25	<25	<25	--	--	--	--	--	--	9300	
09/09/97	3.48	-2.02	5.50	--	460**	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	6600	
12/12/97	3.48	-1.55	5.03	--	430**	120	<2.5	<2.5	<2.5	--	--	--	--	--	--	7800	
02/19/98	3.48	0.13	3.35	--	510**	130	<0.5	<0.5	<0.5	--	--	--	--	--	--	6600	
06/23/98	3.48	-1.50	4.98	*	550**	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	6800	
08/31/98	3.48	-1.94	5.42	--	<500	450	<5.0	<5.0	<5.0	--	--	--	--	--	--	14,000	
12/29/98	3.48	-1.58	5.06	--	<5000	<50	<50	<50	<50	--	--	--	--	--	--	16,100	
03/11/99	3.48	-0.30	3.78	*	979	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	15,100	
06/24/99	3.48	-0.83	4.31	*	<2500	715	<25	<25	<25	--	--	--	--	--	--	12,400	
09/29/99	3.48	-2.10	5.58	--	1380	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	11,700	
12/08/99	3.48	-1.85	5.33	--	318	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	11,100	

\* See Table of Additional Analyses

\*\* 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	Benzene (EPA 8240)	Xylene (EPA 8240)	C-1,2- DCE	Carbon Disulfide	Vinyl Chloride	MTBE
<b>TRIP BLANK</b>																	
10/17/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	
03/29/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
06/26/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
09/25/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
12/17/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
03/20/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
06/20/97	--	--	--	--	<50	<2.0	<2.0	<2.0	<2.0	--	--	--	--	--	--	--	
09/09/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
12/12/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
02/19/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
06/23/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
08/31/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
12/29/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.0	
03/11/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<5.0	
06/24/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<5.0	
09/29/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<2.5	
12/08/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	<5.0	

## Cumulative Table of Well Data and Analytical Results

### ADDITIONAL ANALYSES

Analytical values are in parts per billion (ppb)

DATE	Notes	Ethanol	t-Butanol	MTBE	DIPE	ETBE	TAME
<b>MW-1</b>							
06/23/98	--	<50,000	<10,000	4500	<200	<200	<200
08/31/98	--	--	--	17,000	--	--	--
03/11/99	--	--	--	54.1	--	--	--
06/24/99	--	<10,000	<2000	1800	<20	<20	258
<b>MW-2</b>							
06/23/98	--	<500	<100	56	<2.0	<2.0	<2.0
03/11/99	--	--	--	101	--	--	--
06/24/99	--	<1000	<200	52.5	<2.0	<2.0	<2.0
<b>MW-3</b>							
06/23/98	--	<5000	<1000	420	<20	<20	26
03/11/99	--	--	--	580	--	--	--
06/24/99	--	<6670	<1330	900	<13.3	<13.3	<13.3
<b>MW-4</b>							
06/23/98	--	<50,000	<10,000	11,000	<200	<200	860
03/11/99	--	--	--	17,600	--	--	--
06/24/99	--	<125,000	<25,000	17,000	<250	<250	2600
<b>TRIP BLANK</b>							
03/11/99	--	--	--	<2.0	--	--	--

VS 12,400 amp. 4.

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on March 29, 1996.

Earlier field data and analytical results are drawn from the December 29, 1995 Gettler-Ryan, Inc. report.

### ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

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

TOG = Total Oil Grease

MTBE = Methyl t-butyl Ether

DIPE = Di-Isopropyl Ether

ETBE = Ethyl t-Butyl Ether

TAME = t-Amyl Methyl Ether

C-1,2 DCE = Cis-1,2-Dichloroethylene

Conf. run = Confirmation run

# **Analytical Appendix**



**Sequoia  
Analytical**

1551 Industrial Road  
San Carlos, CA 94070-4111  
(650) 232-9600  
FAX (650) 232-9612

December 27, 1999

Scott Boor  
Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

RE: Chevron(3)/L912100

Dear Scott Boor:

Enclosed are the results of analyses for sample(s) received by the laboratory on December 10, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wayne Stevenson  
Project Manager

CA ELAP Certificate Number I-2360





Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Project: Blaine/Chevron  
Project Number: Chevron 9-1851/451 Hegenberger, Oakland  
Project Manager: Scott Boor

Sampled: 12/8/99  
Received: 12/10/99  
Reported: 12/27/99

**ANALYTICAL REPORT FOR L912100**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	L912100-01	Water	12/8/99
MW-2	L912100-02	Water	12/8/99
MW-3	L912100-03	Water	12/8/99
MW-4	L912100-04	Water	12/8/99
TB	L912100-05	Water	12/8/99



# Sequoia Analytical

1551 Industrial Road  
San Carlos, CA 94070-4111  
(650) 232-9600  
FAX (650) 232-9612

Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Project: Blaine/Chevron  
Project Number: Chevron 9-1851/451 Hegenberger, Oakland  
Project Manager: Scott Boor

Sampled: 12/8/99  
Received: 12/10/99  
Reported: 12/27/99

Sample Description:

MW-1

Laboratory Sample Number:

L912100-01

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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### Sequoia Analytical - San Carlos

#### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9120071	12/15/99	12/15/99		50.0	ND	ug/l
Benzene	"	"	"		0.500	ND	"
Toluene	"	"	"		0.500	ND	"
Ethylbenzene	"	"	"		0.500	ND	"
Xylenes (total)	"	"	"		0.500	ND	"
<b>Methyl tert-butyl ether</b>	"	"	"		5.00	<b>233</b>	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		91.6	%



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Project: Blaine/Chevron  
Project Number: Chevron 9-1851/451 Hegenberger, Oakland  
Project Manager: Scott Boor

Sampled: 12/8/99  
Received: 12/10/99  
Reported: 12/27/99

Sample Description:

MW-2

Laboratory Sample Number:

L912100-02

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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### Sequoia Analytical - San Carlos

#### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9120076	12/16/99	12/16/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	1.27	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	56.9	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		72.5	%	



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(650) 232-9600  
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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Blaine/Chevron Project Number: Chevron 9-1851/451 Hegenberger, Oakland Project Manager: Scott Boor	Sampled: 12/8/99 Received: 12/10/99 Reported: 12/27/99
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**Sample Description:** MW-3  
**Laboratory Sample Number:** L912100-03

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate	Reporting Limit	Result	Units	Notes*
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### Sequoia Analytical - San Carlos

#### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9120071	12/15/99	12/15/99		50.0	73.4	ug/l	1
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
<b>Methyl tert-butyl ether</b>	"	"	"		100	<b>1620</b>	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		96.7	%	



# Sequoia Analytical

1551 Industrial Road  
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(650) 232-9600  
FAX (650) 232-9612

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Blaine/Chevron Project Number: Chevron 9-1851/451 Hegenberger, Oakland Project Manager: Scott Boor	Sampled: 12/8/99 Received: 12/10/99 Reported: 12/27/99
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Sample Description: MW-4  
Laboratory Sample Number: L912100-04

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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### Sequoia Analytical - San Carlos

#### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9120071	12/15/99	12/15/99		50.0	<b>318</b>	ug/l	1
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		500	<b>1100</b>	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		117	%	



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Blaine/Chevron Project Number: Chevron 9-1851/451 Hegenberger, Oakland Project Manager: Scott Boor	Sampled: 12/8/99 Received: 12/10/99 Reported: 12/27/99
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**Sample Description:** TB  
**Laboratory Sample Number:** L912100-05

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9120071	12/15/99	12/15/99		50.0	ND	ug/l
Benzene	"	"	"		0.500	ND	"
Toluene	"	"	"		0.500	ND	"
Ethylbenzene	"	"	"		0.500	ND	"
Xylenes (total)	"	"	"		0.500	ND	"
Methyl tert-butyl ether	"	"	"		5.00	ND	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		85.6	%



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Blaine/Chevron Project Number: Chevron 9-1851/451 Hegenberger, Oakland Project Manager: Scott Boor	Sampled: 12/8/99 Received: 12/10/99 Reported: 12/27/99
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control**  
**Sequoia Analytical - San Carlos**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit	Recov. %	RPD Limit	RPD % Notes*
<b>Batch: 9120071</b>									
<b>Blank</b>									
Purgeable Hydrocarbons as Gasoline									
Benzene	12/15/99			ND	ug/l	50.0			
Toluene	"			ND	"	0.500			
Ethylbenzene	"			ND	"	0.500			
Xylenes (total)	"			ND	"	0.500			
Methyl tert-butyl ether	"			ND	"	5.00			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		9.71	"	70.0-130	97.1		
<b>LCS</b>									
<b>9120071-BS1</b>									
Benzene	12/15/99	10.0		8.33	ug/l	70.0-130	83.3		
Toluene	"	10.0		7.97	"	70.0-130	79.7		
Ethylbenzene	"	10.0		7.85	"	70.0-130	78.5		
Xylenes (total)	"	30.0		24.0	"	70.0-130	80.0		
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		9.69	"	70.0-130	96.9		
<b>LCS</b>									
<b>9120071-BS3</b>									
Purgeable Hydrocarbons as Gasoline	12/15/99	250		271	ug/l	70.0-130	108		
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		13.9	"	70.0-130	139		2
<b>Matrix Spike</b>									
<b>9120071-MS1</b>									
Benzene	12/15/99	10.0	ND	9.74	ug/l	60.0-140	97.4		
Toluene	"	10.0	ND	9.36	"	60.0-140	93.6		
Ethylbenzene	"	10.0	ND	9.27	"	60.0-140	92.7		
Xylenes (total)	"	30.0	ND	28.0	"	60.0-140	93.3		
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		10.5	"	70.0-130	105		
<b>Matrix Spike Dup</b>									
<b>9120071-MSD1</b>									
Benzene	12/15/99	10.0	ND	9.60	ug/l	60.0-140	96.0	25.0	1.45
Toluene	"	10.0	ND	9.56	"	60.0-140	95.6	25.0	2.11
Ethylbenzene	"	10.0	ND	9.25	"	60.0-140	92.5	25.0	0.216
Xylenes (total)	"	30.0	ND	27.9	"	60.0-140	93.0	25.0	0.322
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		9.11	"	70.0-130	91.1		
<b>Batch: 9120076</b>									
<b>Blank</b>									
Purgeable Hydrocarbons as Gasoline	12/16/99			ND	ug/l	50.0			
Benzene	"			ND	"	0.500			
Toluene	"			ND	"	0.500			
Ethylbenzene	"			ND	"	0.500			
Xylenes (total)	"			ND	"	0.500			



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Blaine/Chevron Project Number: Chevron 9-1851/451 Hegenberger, Oakland Project Manager: Scott Boor	Sampled: 12/8/99 Received: 12/10/99 Reported: 12/27/99
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control**  
**Sequoia Analytical - San Carlos**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit	Recov. %	RPD Limit	RPD %	Notes*
<b>Blank (continued)</b>										
Methyl tert-butyl ether	12/16/99			ND	ug/l	5.00				
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		9.85	"	70.0-130	98.5			
<b>LCS</b>										
Benzene	12/16/99	10.0		8.28	ug/l	70.0-130	82.8			
Toluene	"	10.0		8.24	"	70.0-130	82.4			
Ethylbenzene	"	10.0		8.43	"	70.0-130	84.3			
Xylenes (total)	"	30.0		25.4	"	70.0-130	84.7			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		10.6	"	70.0-130	106			
<b>LCS</b>										
Purgeable Hydrocarbons as Gasoline	12/16/99	250		284	ug/l	70.0-130	114			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		9.37	"	70.0-130	93.7			
<b>Matrix Spike</b>										
Purgeable Hydrocarbons as Gasoline	12/16/99	250	ND	279	ug/l	60.0-140	112			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		9.52	"	70.0-130	95.2			
<b>Matrix Spike Dup</b>										
Purgeable Hydrocarbons as Gasoline	12/16/99	250	ND	278	ug/l	60.0-140	111	25.0	0.897	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	10.0		9.49	"	70.0-130	94.9			



Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Project: Blaine/Chevron  
Project Number: Chevron 9-1851/451 Hegenberger, Oakland  
Project Manager: Scott Boor

Sampled: 12/8/99  
Received: 12/10/99  
Reported: 12/27/99

**Notes and Definitions**

#	Note
1	Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
2	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference



Fax copy of Lab Report and COC to Chevron Contact:

- Yes  
 No

Chain-of-Custody-Record

Chevron Products Co. P.O. BOX 6004 San Ramon, CA 94583 FAX (925)842-8370	Chevron Facility Number 9-1851 L712 100 Facility Address 451 Hegenberger Rd., Oakland Consultant Project Number 991208-42 Consultant Name Blaine Tech Services, Inc. Address 1680 Rogers Ave., San Jose Project Contact (Name) Scott Boor (Phone) 408-573-0555 (Fax) 408-573-7771			Chevron Contact Name Brett Hunter (Phone) (925) 842-8695 Laboratory Name Sequoia Laboratory Service Order 9144488 Laboratory Service Code ZZ02790 Samples collected by (Name) Leon BEARHART Signature <i>Leon Bearhart</i> <i>Jean Myles</i>		
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Sample Number	Number of Containers	Matrix S = Soil W = Water	A = Air C = Charcoal	Sample Preservation	Date/Time	State Method: <input type="checkbox"/> CA <input type="checkbox"/> OR <input type="checkbox"/> WA <input type="checkbox"/> NW Series								UT	Remarks			
						BTEX/MTBE + TPH GAS (8020 + 8015)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oxygenates (8260)	Purgeable Halocarbons (8010)	Purgeable Organics (8270)	Extractable Organics (8270)	Oil and Grease (5520)	Metals (ICAP or AA) Cd, Cr, Pb, Zn, Ni	BTEX (8020)	BTEX/MTBE/Naph. (8020)		
MW-1	3	W			12/9/99 1235	X											SC	0123
MW-2*	1				1211	X												
MW-3	1				1300	X												
MW-4**	1				1322	X												
TB	2					X												

Received By (Signature) <i>Myles</i>	Organization BTS	Date/Time 12/9 10:51 12/9/99 1430	Received By (Signature) <i>Miller</i>	Organization	Date/Time 1012 12-9-55	Iced Y/N	Turn Around Time (Circle One) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted
Released By (Signature) <i>Ingram</i>	Organization	Date/Time	Received By (Signature) <i>Ingram</i>	Organization	Date/Time	Iced Y/N	
Released To (Signature) <i>Office</i>	Organization SAMI	Date/Time 12/9 1815	Received For Laboratory By (Signature) <i>Wellman</i>	Date/Time 1030 12/10/99	Iced Y/N		

# **Field Data Sheets**

## WELL GAUGING DATA

Project # 991Z08-43 Date 12/8/99 Client CH20V. 9-1851

Site 451 HEGENBERGER RD OAKLAND CA

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
2	mw-1	2				4.07	14.55	TOC	
1	mw-2	2				4.83	14.42	/	
3	mw-3	2				3.54	14.60		
4	mw-4	2				6.33	14.98	✓	

# CHEVRON WELL MONITORING DATA SHEET

Project #:	991208-43	Station #:	9-1851				
Sampler:	LEON G.	Date:	12-8-99				
Well I.D.:	MW-1	Well Diameter:	(2)	3	4	6	8
Total Well Depth:	14.55	Depth to Water:	4.07				
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: \_\_\_\_\_

$$\begin{array}{r}
 1.6 \\
 \times \quad 3 \\
 \hline
 \end{array} = \frac{4.8}{\text{Gals.}}$$

1 Case Volume (Gals.)      Specified Volumes      Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1227	64.9	6.8	2890	8	
1230	65.6	6.7	2690	3	
1233	65.7	6.7	2654	5	

Did well dewater? Yes  No Gallons actually evacuated: 5

Sampling Time: 1235 Sampling Date: 12-8-99

Sample I.D.: MW-1 Laboratory: Sequoia CORE 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
D.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

# CHEVRON WELL MONITORING DATA SHEET

Project #: 991206-43	Station #: 9-1651	
Sampler: LEON G	Date: 12-6-99	
Well I.D.: mw-2	Well Diameter: (2) 3 4 6 8	
Total Well Depth: 14.62	Depth to Water: 4.49	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multipplier	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: \_\_\_\_\_

$$\frac{1.5}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{4.5}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1202	66.2	6.7	10	2	
1206	69.4	6.8	13	3	
1209	69.3	6.7	16	5	

Did well dewater? Yes  Gallons actually evacuated: 5

Sampling Time: 1211 Sampling Date: 12-6-99

Sample I.D.: mw-2 Laboratory: Sequoia CORE 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 #: 991208-43	Station #: 9-1461		
Sampler: Leon G.	Date: 12-8-94		
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8		
Total Well Depth: 14.60	Depth to Water: 3.54		
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: \_\_\_\_\_

$$\frac{1.7}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{5.1}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1253	65.6	6.8	4624	2	
1256	66.3	6.8	4657	4	
1258	66.3	6.8	4548	5	

Did well dewater? Yes  No Gallons actually evacuated: 5

Sampling Time: 1300 Sampling Date: 12-8-94

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

# CHEVRON WELL MONITORING DATA SHEET

Project #:	991208 - PZ	Station #:	9-1651
Sampler:	LEON G.	Date:	12-8-99
Well I.D.:	MW-4	Well Diameter:	2 3 4 6 8
Total Well Depth:	14.98	Depth to Water:	5.33
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: \_\_\_\_\_

$$\frac{1.5}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{4.5}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1315	69.1	6.9	5480	2	
1317	70.0	6.9	7305	3	
1320	69.6	6.8	7310	5	

id well dewater? Yes  No Gallons actually evacuated: 5

Sampling Time: 1322 Sampling Date: 12-8-99

Sample I.D.: MW-4 Laboratory: Sequoia CORE N. Creek Assoc. Labs

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

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

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