



**Chevron**

September 15, 1998

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

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

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

**Re: Former Chevron Service Station #9-4930**  
**3369 Castro Valley Blvd., Castro Valley, California**

Dear Mr. Seery:

Enclosed is the Third Quarter Groundwater Monitoring Report for 1998 that was prepared by Blaine Tech Services Inc., for the above noted site. The groundwater samples were analyzed for TPH-g, BTEX and MtBE constituents. Monitoring wells MW-1, MW-2 and MW-4 are sampled quarterly while well MW-3 is sampled semi-annually (1<sup>st</sup> and 3<sup>rd</sup> quarters).

The benzene concentration increased slightly in monitoring well MW-1 while decreasing in MW-4 from the previous sampling event. The concentrations in well MW-2 were below method detection limits for all the constituents, while the concentrations in well MW-3 were below method detection limits for the BTEX and MtBE constituents.

Depth to ground water varied from 5.13 feet to 6.52 feet below grade with a direction of flow southerly.

Chevron will continue to monitor the site as outlined above. If you have any questions call me at (925) 842-9136.

Sincerely,  
**CHEVRON PRODUCTS COMPANY**

Philip R. Briggs  
Site Assessment and Remediation Project Manager

SEP 15 1998 10:54 AM

SEP 16 1998 AM 2:54



September 15, 1998  
Mr. Scott Seery  
Former Chevron Service Station #9-4930  
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Enclosure

Cc. Ms. Bette Owen, Chevron Products Co.

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

Anna Counelis & Tula Gallanes  
109 Casa Vieja  
Orinda, CA 94563

BLAINE  
TECH SERVICES INC.



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

September 9, 1998

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

### 3rd Quarter 1998 Monitoring at 9-4930

Third Quarter 1998 Groundwater Monitoring at  
Former Chevron Service Station Number 9-4930  
3369 Castro Valley Blvd.  
Castro Valley, CA

Monitoring Performed on August 7, 1998

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### Groundwater Sampling Report 980807-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.

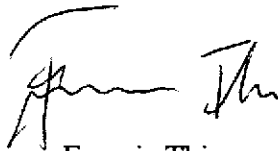
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater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

A handwritten signature in black ink, appearing to read 'Francis Thie', is written over a horizontal line.

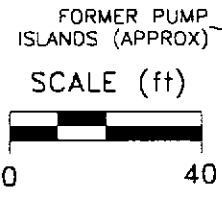
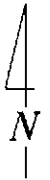
Francis Thie  
Vice President

FPT/ap

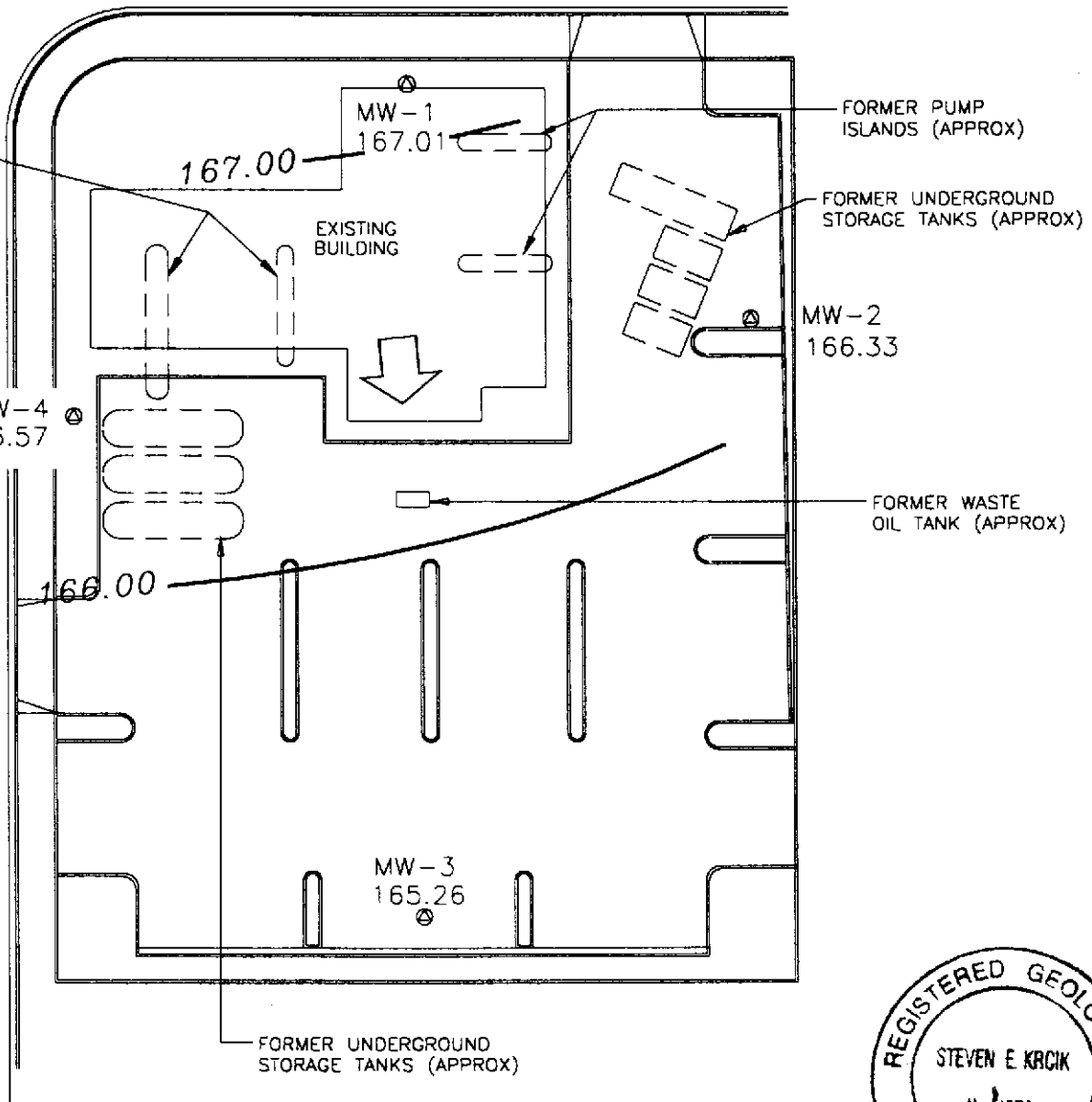
attachments: Professional Engineering Appendix  
Cumulative Table of Well Data and Analytical Results  
Analytical Appendix  
Field Data Sheets

# **Professional Engineering Appendix**

CASTRO VALLEY BLVD.

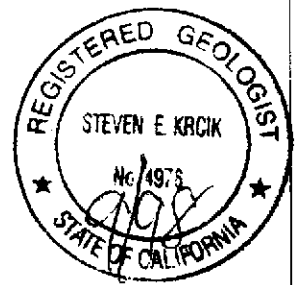


WILBEAM AVE.



EXPLANATION

- ⊙ MONITORING WELL
- 165.26 GROUNDWATER ELEVATION (FT, MSL)
- 166.00 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- ↓ APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.009



Base map from Geoconsultants, Inc.

PREPARED BY 	Former Chevron Station 9-4930 3369 Castro Valley Boulevard Castro Valley, California	FIGURE: 1
	GROUNDWATER ELEVATION CONTOUR MAP, AUGUST 7, 1998	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	1,2-DCE	TCE	DCFM	PCE	MTBE
<b>MW-1</b>														
10/29/93	172.90	166.15	6.75	--	1000	11	17	32	110	--	--	--	--	--
02/25/94	172.90	166.80	6.10	--	250	6.0	1.0	5.0	3.0	--	--	--	--	--
04/04/94	172.90	166.14	6.76	--	--	--	--	--	--	--	--	--	--	--
04/29/94	172.90	166.35	6.55	--	--	--	--	--	--	--	--	--	--	--
06/13/94	172.90	166.12	6.78	--	670	35	3.5	43	3.9	0.8	16	14	47	--
06/30/94	172.90	166.06	6.84	--	--	--	--	--	--	--	--	--	--	--
07/28/94	172.90	166.03	6.87	--	--	--	--	--	--	--	--	--	--	--
08/31/94	172.90	166.00	6.90	--	560	43	9.5	25	5.0	1.3	19	13	65	--
11/11/94	172.90	167.00	5.90	--	460	53	4.0	50	3.4	--	--	--	--	--
02/01/95	172.90	166.88	6.02	--	240	25	0.60	4.0	<0.5	--	--	--	--	--
05/18/95	172.90	166.82	6.08	--	580	42	1.0	53	2.6	--	--	--	--	--
08/22/95	172.90	166.52	6.38	--	840	73	1.2	110	1.6	--	--	--	--	--
11/01/95	172.90	166.40	6.50	--	350	36	<0.5	30	<0.5	--	--	--	--	15
01/26/96	172.90	166.85	6.05	--	210	23	<0.5	12	<0.5	--	--	--	--	4.7
05/08/96	172.90	166.50	6.40	--	310	42	2.3	56	1.1	--	--	--	--	52
10/03/96	173.53	166.61	6.92	--	240	31	<0.5	1.7	<0.5	--	--	--	--	18
02/04/97	173.53	167.02	6.51	--	200	9.9	<0.5	3.7	<0.5	--	--	--	--	16
04/30/97	173.53	166.64	6.89	--	260	11	<0.5	17	<0.5	--	--	--	--	13
07/22/97	173.53	166.49	7.04	--	170	5.0	<0.5	<0.5	<0.5	--	--	--	--	<2.5
11/03/97	173.53	166.55	6.98	--	230	13	<0.5	7.8	0.68	--	--	--	--	*
02/11/98	173.53	167.52	6.01	--	110	3.1	0.63	<0.5	<0.5	--	--	--	--	<2.5
05/08/98	173.53	166.72	6.81	--	170	4.2	1.8	2.1	<0.5	--	--	--	--	<2.5
08/07/98	173.53	167.01	6.52	--	110	5.2	<0.5	6.7	<0.5	--	--	--	--	13

\* No value for MTBE could be determined; see lab report.



## 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	1,2-DCE	TCE	DCFM	PCE	MTBE
<b>MW-2</b>														
10/29/93	173.91	166.05	7.86	--	5600	140	3.2	17	330	--	--	--	--	--
02/25/94	173.91	166.96	6.95	--	820	41	<0.5	17	5.0	--	--	--	--	--
04/04/94	173.91	166.18	7.73	--	--	--	--	--	--	--	--	--	--	--
04/29/94	173.91	166.23	7.68	--	--	--	--	--	--	--	--	--	--	--
06/13/94	173.91	166.20	7.71	--	1100	160	0.8	64	2.0	<0.5	0.9	<0.5	2.0	--
06/30/94	173.91	165.87	8.04	--	--	--	--	--	--	--	--	--	--	--
07/28/94	173.91	165.99	7.92	--	--	--	--	--	--	--	--	--	--	--
08/31/94	173.91	165.98	7.93	--	190	7.1	4.1	3.1	1.2	<0.5	1.1	<0.5	4.5	--
11/11/94	173.91	167.08	6.83	--	440	120	<1.0	18	<1.0	--	--	--	--	--
02/01/95	173.91	167.77	6.14	--	240	81	<1.0	<1.0	<1.0	--	--	--	--	--
05/18/95	173.91	166.91	7.00	--	330	74	<0.5	26	1.3	--	--	--	--	--
08/22/95	173.91	166.58	7.33	--	390	84	<1.0	2.1	<1.0	--	--	--	--	--
11/01/95	173.91	166.54	7.37	--	190	46	<0.5	1.6	<0.5	--	--	--	--	<2.5
01/26/96	173.91	168.13	5.78	--	<50	13	<0.5	<0.5	<0.5	--	--	--	--	<2.5
05/08/96	173.91	166.76	7.15	--	<50	4.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
10/03/96	172.67	166.66	6.01	--	63	4.3	<0.5	<0.5	<0.5	--	--	--	--	<2.5
02/04/97	172.67	167.40	5.27	--	<50	1.6	<0.5	<0.5	<0.5	--	--	--	--	<2.5
04/30/97	172.67	166.74	5.93	--	<50	5.4	<0.5	0.80	<0.5	--	--	--	--	<2.5
07/22/97	172.67	166.53	6.14	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
11/03/97	172.67	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--
02/11/98	172.67	167.95	4.72	--	<50	0.52	0.63	<0.5	<0.5	--	--	--	--	<2.5
05/08/98	172.67	167.07	5.60	--	<50	1.1	1.2	<0.5	<0.5	--	--	--	--	<2.5
08/07/98	172.67	166.33	6.34	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Notes	Analytical results are in parts per billion (ppb)									
	Head Elev.	Water Elev.	To Water		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	1,2-DCE	TCE	DCFM	PCE	MTBE
<b>MW-3</b>														
10/29/93	172.60	164.96	7.64	--	110	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
02/25/94	172.60	166.22	6.38	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
04/04/94	172.60	165.21	7.39	--	--	--	--	--	--	--	--	--	--	--
04/29/94	172.60	165.62	6.98	--	--	--	--	--	--	--	--	--	--	--
06/13/94	172.60	165.15	7.45	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	2.0	<0.5	220	--
06/30/94	172.60	165.05	7.55	--	--	--	--	--	--	--	--	--	--	--
07/28/94	172.60	164.93	7.67	--	--	--	--	--	--	--	--	--	--	--
08/31/94	172.60	164.81	7.79	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	320	--
11/11/94	172.60	165.73	6.87	Sampled biannually	--	--	--	--	--	--	--	--	--	--
02/01/95	172.60	167.03	5.57	--	89	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
05/18/95	172.60	165.79	6.81	--	--	--	--	--	--	--	--	--	--	--
08/22/95	172.60	165.35	7.25	--	190	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
11/01/95	172.60	165.70	6.90	--	--	--	--	--	--	--	--	--	--	--
01/26/96	172.60	167.35	5.25	--	160	<2.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
05/08/96	172.60	165.55	7.05	--	--	--	--	--	--	--	--	--	--	--
10/03/96	170.47	165.29	5.18	--	150	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
02/04/97	170.47	166.27	4.20	--	88	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
04/30/97	170.47	165.37	5.10	--	--	--	--	--	--	--	--	--	--	--
07/22/97	170.47	165.15	5.32	--	180	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
11/03/97	170.47	165.12	5.35	--	--	--	--	--	--	--	--	--	--	--
02/11/98	170.47	167.47	3.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
05/08/98	170.47	165.96	4.51	--	--	--	--	--	--	--	--	--	--	--
08/07/98	170.47	165.26	5.21	--	110	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Notes	Analytical results are in parts per billion (ppb)									
	Head Elev.	Water Elev.	To Water		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	1,2-DCE	TCE	DCFM	PCE	MTBE
<b>MW-4</b>														
10/29/93	170.68	165.18	5.50	--	640	6.7	3.3	0.6	6.7	--	--	--	--	--
02/25/94	170.68	165.86	4.82	--	450	20	0.8	12	6.0	--	--	--	--	--
04/04/94	170.68	165.23	5.45	--	--	--	--	--	--	--	--	--	--	--
04/29/94	170.68	165.45	5.23	--	--	--	--	--	--	--	--	--	--	--
06/13/94	170.68	165.14	5.54	--	1700	130	1.4	100	11	22	59	13	180	--
06/30/94	170.68	165.13	5.55	--	--	--	--	--	--	--	--	--	--	--
07/28/94	170.68	165.06	5.62	--	--	--	--	--	--	--	--	--	--	--
08/31/94	170.68	165.00	5.68	--	800	17	3.5	9.3	4.4	25	53	22	510	--
11/11/94	170.68	165.46	5.22	--	500	26	<0.5	30	4.3	--	--	--	--	--
02/01/95	170.68	165.12	5.56	--	1600	180	<2.0	31	42	--	--	--	--	--
05/18/95	170.68	165.70	4.98	--	1300	130	<2.0	140	5.5	--	--	--	--	--
08/22/95	170.68	165.35	5.33	--	970	50	<1.2	75	<1.2	--	--	--	--	--
11/01/95	170.68	165.28	5.40	--	320	3.3	<0.5	4.1	<0.5	--	--	--	--	27
01/26/96	170.68	166.40	4.28	--	1400	65	<2.5	98	71	--	--	--	--	100
05/08/96	170.68	165.33	5.35	--	610	28	1.2	58	4.4	--	--	--	--	70
10/03/96	171.70	165.48	6.22	--	210	4.2	<0.5	<0.5	<0.5	--	--	--	--	12
02/04/97	171.70	166.57	5.13	--	60	4.4	<0.5	<0.5	<0.5	--	--	--	--	--
04/30/97	171.70	165.60	6.10	--	870	49	<2.0	100	<2.0	--	--	--	--	18
07/22/97	171.70	165.36	6.34	--	420	16	<0.5	23	<0.5	--	--	--	--	9.4
11/03/97	171.70	165.35	6.35	--	370	8.1	0.54	10	7.6	--	--	--	--	30
02/11/98	171.70	167.16	4.54	--	<50	2.0	0.58	<0.5	<0.5	--	--	--	--	<2.5
05/08/98	171.70	166.25	5.45	--	230	13	2.3	37	4.3	--	--	--	--	15
08/07/98	171.70	166.57	5.13	--	85	4.8	<0.5	11	0.87	--	--	--	--	57

## 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	1,2-DCE	TCE	DCFM	PCE	MTBE
<b>TRIP BLANK</b>														
02/25/94	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
06/13/94	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
08/31/94	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
11/11/94	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
02/01/95	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
05/18/95	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
08/22/95	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
11/01/95	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/26/96	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
05/08/96	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
10/03/96	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
02/04/97	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
04/30/97	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
07/22/97	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
02/11/98	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
05/08/98	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
08/07/98	--	---	---	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994.  
 Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.  
 New survey information drawn from the October 11, 1996 Ron Archer Civil Engineer Inc. report.

**ABBREVIATIONS:**

- TPH = Total Petroleum Hydrocarbons
- 1,2-DCE = 1,2-Dichloroethene
- TCE = Trichloroethene
- DCFM = Dichlorodifluoromethane
- PCE = Tetrachloroethene
- MTBE = Methyl t-Butyl Ether

# Analytical Appendix



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-4930 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808380-01	Sampled: 08/07/98 Received: 08/07/98 Analyzed: 08/21/98 Reported: 08/27/98
--	---	---

QC Batch Number: GC082198802005A  
Instrument ID: HP-5

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


Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	110
Methyl t-Butyl Ether	2.5	13
Benzene	0.50	5.2
Toluene	0.50	N.D.
Ethyl Benzene	0.50	6.7
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		GAS

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	76

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
\_\_\_\_\_  
Mike Gregory  
Project Manager



Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Chevron 9-4930  
Sample Descript: MW-2  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808380-02

Sampled: 08/07/98  
Received: 08/07/98  
Analyzed: 08/21/98  
Reported: 08/27/98

QC Batch Number: GC082198802005A  
Instrument ID: HP-5

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	86

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

**SEQUOIA ANALYTICAL** - ELAP #1271

Mike Gregory  
Project Manager



Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Chevron 9-4930  
Sample Descript: MW-3  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808380-03

Sampled: 08/07/98  
Received: 08/07/98  
Analyzed: 08/21/98  
Reported: 08/27/98

QC Batch Number: GC082198802005A  
Instrument ID: HP-5

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	110
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		<C10
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	76

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
Mike Gregory  
Project Manager





Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Chevron 9-4930  
Sample Descript: MW-4  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808380-04

Sampled: 08/07/98  
Received: 08/07/98  
Analyzed: 08/24/98  
Reported: 08/27/98

QC Batch Number: GC082498802002A  
Instrument ID: HP-2

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	85
Methyl t-Butyl Ether	2.5	57
Benzene	0.50	4.8
Toluene	0.50	N.D.
Ethyl Benzene	0.50	11
Xylenes (Total)	0.50	0.87
Chromatogram Pattern:		GAS

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	124

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
Mike Gregory  
Project Manager



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-4930 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808380-05	Sampled: 08/07/98 Received: 08/07/98 Analyzed: 08/21/98 Reported: 08/27/98
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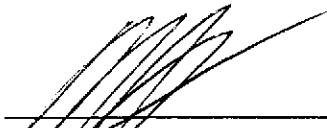
QC Batch Number: GC082198802005A  
Instrument ID: HP-5

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	77

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

**SEQUOIA ANALYTICAL - ELAP #1271**

  
\_\_\_\_\_  
Mike Gregory  
Project Manager



Sequoia  
Analytical

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(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 9-4930

Received: 08/07/98

Lab Proj. ID: 9808380

Reported: 08/27/98

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 9 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Mike Gregory  
Project Manager



# Sequoia Analytical

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

Client Project ID: Chevron 9-4930  
Matrix: Liquid

Work Order #: 9808380 -01-03, 05

Reported: Aug 31, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	BTEX as TPH
QC Batch#:	GC082198802005A	GC082198802005A	GC082198802005A	GC082198802005A	GC082198802005A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8081437	8081437	8081437	8081437	8081437
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/21/98	8/21/98	8/21/98	8/21/98	8/21/98
Analyzed Date:	8/21/98	8/21/98	8/21/98	8/21/98	8/21/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	240 µg/L
Result:	19	19	19	59	240
MS % Recovery:	95	95	95	98	100
Dup. Result:	17	18	17	55	250
MSD % Recov.:	85	90	85	92	104
RPD:	11.1	5.4	11.1	7.0	4.1
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS082198	LCS082198	LCS082198	LCS082198	LCS082198
Prepared Date:	8/21/98	8/21/98	8/21/98	8/21/98	8/21/98
Analyzed Date:	8/21/98	8/21/98	8/21/98	8/21/98	8/21/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	240 µg/L
LCS Result:	18	19	19	57	240
LCS % Recov.:	90	95	95	95	100

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

SEQUOIA ANALYTICAL  
Elap #1271

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

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# Sequoia Analytical

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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 9-4930  
Matrix: Liquid

Work Order #: 9808380-04

Reported: Aug 31, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	BTEX as TPH
QC Batch#:	GC082498802002A	GC082498802002A	GC082498802002A	GC082498802002A	GC082498802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Kemp	A. Kemp	A. Kemp	A. Kemp	A. Kemp
MS/MSD #:	8081557	8081557	8081557	8081557	8081557
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/24/98	8/24/98	8/24/98	8/24/98	8/24/98
Analyzed Date:	8/24/98	8/24/98	8/24/98	8/24/98	8/24/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	360 µg/L
Result:	21	21	21	62	340
MS % Recovery:	105	105	105	103	94
Dup. Result:	21	21	21	63	390
MSD % Recov.:	105	105	105	105	108
RPD:	0.0	0.0	0.0	1.6	13.7
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS082498	LCS082498	LCS082498	LCS082498	LCS082498
Prepared Date:	8/24/98	8/24/98	8/24/98	8/24/98	8/24/98
Analyzed Date:	8/24/98	8/24/98	8/24/98	8/24/98	8/24/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	360 µg/L
LCS Result:	22	22	22	67	350
LCS % Recov.:	110	110	110	112	97

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

SEQUOIA ANALYTICAL  
Elap #1271

Mike Gregory  
Project Manager

**Please Note:**

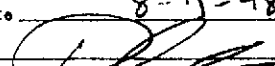
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. 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

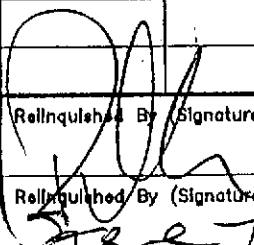
9808380.BLA <2>

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

Chevron Facility Number 9-4930  
Facility Address 3369 Castro Valley Blvd., Castro Valley, 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 9034497  
Samples Collected by (Name) PAUL SAWWA  
Collection Date 8-7-98  
Signature 

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										DO NOT BILL FOR TB-LB <u>9808380</u>  Remarks					
								BTEX + TPH GAS (8020 + 8015) <i>PTISE</i>	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)								
MW-1	01	3	U		11:13		X	X															
MW-2	02	3			10:00		X	X															
MW-3	03	3			11:25		X	X															
MW-4	04	3			10:45		X	X															
TB	05	2					X	X															

Relinquished By (Signature) 	Organization <u>Blaine</u>	Date/Time <u>8/7/98 12:31</u>	Received By (Signature) <u>Stal Tr</u>	Organization <u>SEQ.</u>	Date/Time <u>8/7/98 12:31</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted <u>7 2 01</u>
Relinquished By (Signature) <u>Stal Tr</u>	Organization —	Date/Time <u>8/7/98</u>	Received By (Signature) —	Organization —	Date/Time —	
Relinquished By (Signature) —	Organization —	Date/Time —	Received For Laboratory By (Signature) <u>Leppaner</u>	Organization —	Date/Time <u>8-7-98 1401</u>	

03/98/03

# Field Data Sheets





## CHEVRON WELL MONITORING DATA SHEET

Project #: <u>980807-P1</u>	Station #: <u>9-4930</u>
Sampler: <u>PAUL</u>	Date: <u>8-7-98</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>18.35</u>	Depth to Water: <u>6.52</u>
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: _____	

<u>2</u>	x	<u>3</u>	=	<u>6</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
11:02	68.2	7.1	1000	2	
11:05	67.6	7.0	900	4	
11:08	67.2	7.0	900	6	

Did well dewater?    Yes    No    Gallons actually evacuated: 6

Sampling Time: 11:13                  Sampling Date: 8-7-98

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 #: 980807-P1	Station #: 9-4930
Sampler: RAWL	Date: 8-7-98
Well I.D.: MW-2	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 16.94	Depth to Water: 6.34
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:	Sampling Method:
<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port Other: _____

<u>2</u>	x	<u>3</u>	=	<u>6</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
9:48	67.4	7.4	1000	2	
9:51	66.8	7.4	1000	4	
9:54	66.5	7.3	1000	4	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>6</u>
Sampling Time: 10:00	Sampling Date: 8-7-98
Sample I.D.: MW-2	Laboratory: <u>Sequia</u> GTEL N. Creek Assoc. Labs
Analyzed for: <u>TPH-G BTEX MTBE</u> TPH-D Other:	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D Other:
D.O. (if req'd):	Pre-purge: <span style="float: right;">mg/L</span>
O.R.P. (if req'd):	Pre-purge: <span style="float: right;">mV</span>
	Post-purge: <span style="float: right;">mg/L</span>
	Post-purge: <span style="float: right;">mV</span>

## CHEVRON WELL MONITORING DATA SHEET

Project #: 980807-P1	Station #: G-4930
Sampler: PAL	Date: 8-7-98
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 17.45	Depth to Water: 5.21
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: \_\_\_\_\_

2	x	3	=	6	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
10:15	68.2	7.2	900	2	
10:17	67.4	7.2	900	4	
10:20	67.0	7.1	850	6	

Did well dewater? Yes  No  Gallons actually evacuated: 6

Sampling Time: 10:25      Sampling Date: 8-7-98

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 #: <u>980807-P1</u>	Station #: <u>9-4930</u>
Sampler: <u>PAUL</u>	Date: <u>8-7-98</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth: <u>17.90</u>	Depth to Water: <u>5.13</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

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

<u>2</u>	x	<u>3</u>	=	<u>6</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
10:36	67.8	7.4	900	2	
10:38	67.4	7.2	850	4	
10:41	66.5	7.2	800	6	

Did well dewater? Yes  No      Gallons actually evacuated: 6

Sampling Time: 10:45      Sampling Date: 8-7-98

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