

ENVIRONMENTAL  
PROTECTION



**Chevron**

August 11, 1997 97 AUG 13 PM 3:00

Ms. Jennifer Eberle  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Chevron Products Company**  
6001 Bollinger Canyon Road  
Building 1  
San Ramon, CA 94583  
P.O. Box 6004  
San Ramon, CA 94583-0904

**Marketing - Sales West**  
Phone 510 842 9500

**Re: Former Chevron Service Station #9-0019** site ID #10  
**210 Grand Avenue**  
**Oakland, California 94610**

Dear Ms. Eberle:

Enclosed is the Second Quarter Groundwater Monitoring report for 1997, prepared by our consultant Blaine Tech Services, Inc. for the above noted facility. The ground water samples were analyzed for TPH-g, BTEX, and MtBE. Monitoring wells MW-4 through MW-7 were scheduled to be sampled with wells MW-8 and MW-9 checked for depth to water.

As noted in the previous report, Chevron was to make a concentrated effort to locate monitoring well MW-6 which was covered by the recent construction, that included reconfiguration of the streets and installing a parking area. Well MW-5 was located, after extensive research, in the new landscaped area buried about a foot; the casing was extended 1.27 feet to a new well box, which was set at grade. Due to the recent construction, a resurvey of all the wells was performed to establish new casing and well box elevations.

Monitoring wells MW-4, MW-6 and MW-7 were below method detection limits for all constituents while MW-5 showed a decrease in all constituents from the previous sampling event. The depth of the groundwater varied from 2.89 feet to 6.78 feet below grade with a direction of flow northwesterly.

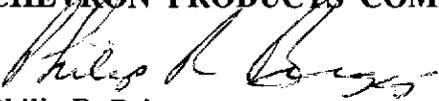
It appears that the dissolved hydrocarbons detected in well MW-5 are not migrating and are remaining around MW-5, as downgradient well MW-4 has been below method detection levels for all constituents the last four sampling events. In the last report, Chevron recommended that an Oxygen Releasing Compound (ORC) be placed into this well to speed up the natural attenuation process. On July 25, 1997 you verbally agreed to this request and I have advised my consultant to add the ORC material to this well.

August 11, 1997  
Ms. Jennifer Eberle  
Former Chevron Service Station # 9-0019  
Page2

ORC will be added to well MW-5 tomorrow and prior to the next sampling event, which is scheduled late in September. With the results of sampling from the next event, this ORC is expected to speed up the natural attenuation process, and reduce the concentration of dissolved hydrocarbons now detected in well MW-5. If this occurs, and the remaining wells continue to below method detection limits it would appear that this site could be considered for closer and abandonment of the wells.

If you have any questions, call me at (510) 842-9136.

Sincerely,  
**CHEVRON PRODUCTS COMPANY**

  
Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

cc: Ms. Bette Owen, Chevron

Mr. Ron Basarich  
City of Oakland  
Real Estate Department  
1330 Broadway, Suite 101  
Oakland, CA 94612

Mr. Andrew Clark-Clough  
City of Oakland  
Environmental Affairs Division  
1333 Broadway, Suite 330  
Oakland, CA 94612

# RON ARCHER

CIVIL ENGINEER INC.

CONSULTING • PLANNING • DESIGN • SURVEYING

4133 Mohr Ave., Suite E • Pleasanton, CA 94566  
Phone: (510) 462-9372 Fax: (510) 462-4454



ENVIRONMENTAL  
PROTECTION  
97 AUG 13 PM 3:00

July 22, 1997

Job No 2516

Elevations Of Existing Monitoring Wells At The Former Chevron Service Station No. 9-0019 (Now A Paved Parking Area), Located At 210 Grand Avenue At Bay Place, City Of Oakland, Alameda County, California.

For: **BLAINE TECH SERVICES INC**

### **BENCHMARK: #9-SW3**

Top Of Pin Set Inside Of A Standard City Of Oakland Monument Casting At The Intersection Of Harrison Street And Grand Avenue, 29.5 Feet Southerly Of The North Property Line Of Grand Avenue In The Cross Walk Elevation Taken As 6.77 M.S.L. (N.G.V.D.)

## ***MONITORING WELL DATA TABLE***

WELL DESIGNATION	TOP OF CASING ELEVATION	TOP OF BOX ELEVATION
MW-4	10.03	10.30
MW-5	10.99	11.42
MW-6	10.23	10.54
MW-7	8.08	8.78
MW-8	9.88	10.32
MW-9	10.74	11.24

**WELL HEAD INSPECTION CHECKLIST AND REPAIR ORDER**

Client Chev. Site # 9-0019  
 Site address 210 Grand Ave  
Oakland, CA

Inspection date: 6-29-97  
 Inspected by: DOUG  
 BTS Event # 970629-52

1. Lid on the box? Yes No	5. Water standing in the well box?	7. Can cap be pulled loose?
2. Lid whole?	5a. Standing above well top?	8. Can cap seal out water?
3. Lid secure?	5b. Standing below well top?	9. Padlock present?
4. Lid seal intact?	5c. Water even with top of well cap?	10. Padlock found locked?
	6. Well cap/plug present?	11. Padlock functional?

Check box if *no deficiencies* were found. Note below deficiencies you were able to correct.

Well I.D.	Deficiency	Corrective Action Taken
MW-6	Broken 2" casing	Added 1.27 ft. to MW-6 casing
	No cap	Before 6.55 } 1.27 ft. added
	No lock	- After 7.02 }
		Located well - dug 2x2 ft. hole
		2 ft. deep to locate well-used 4
		bags of concrete to new Well Box
MW-8	5a	Bailed water from well box

Note below all deficiencies that could not be corrected and *still need to be corrected*.

Well I.D.	Persisting Deficiency	BTS Office assigns or defers Correction to:	Date assigned	Date corrected

Office review and assignments made by \_\_\_\_\_ date \_\_\_\_\_



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

August 7, 1997

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

### 2nd Quarter 1997 Monitoring at 9-0019

Second Quarter 1997 Groundwater Monitoring at  
Chevron Service Station Number 9-0019  
210 Grand Avenue  
Oakland, CA

Monitoring Performed on June 29, 1997

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### Groundwater Sampling Report 970629-S-2

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,

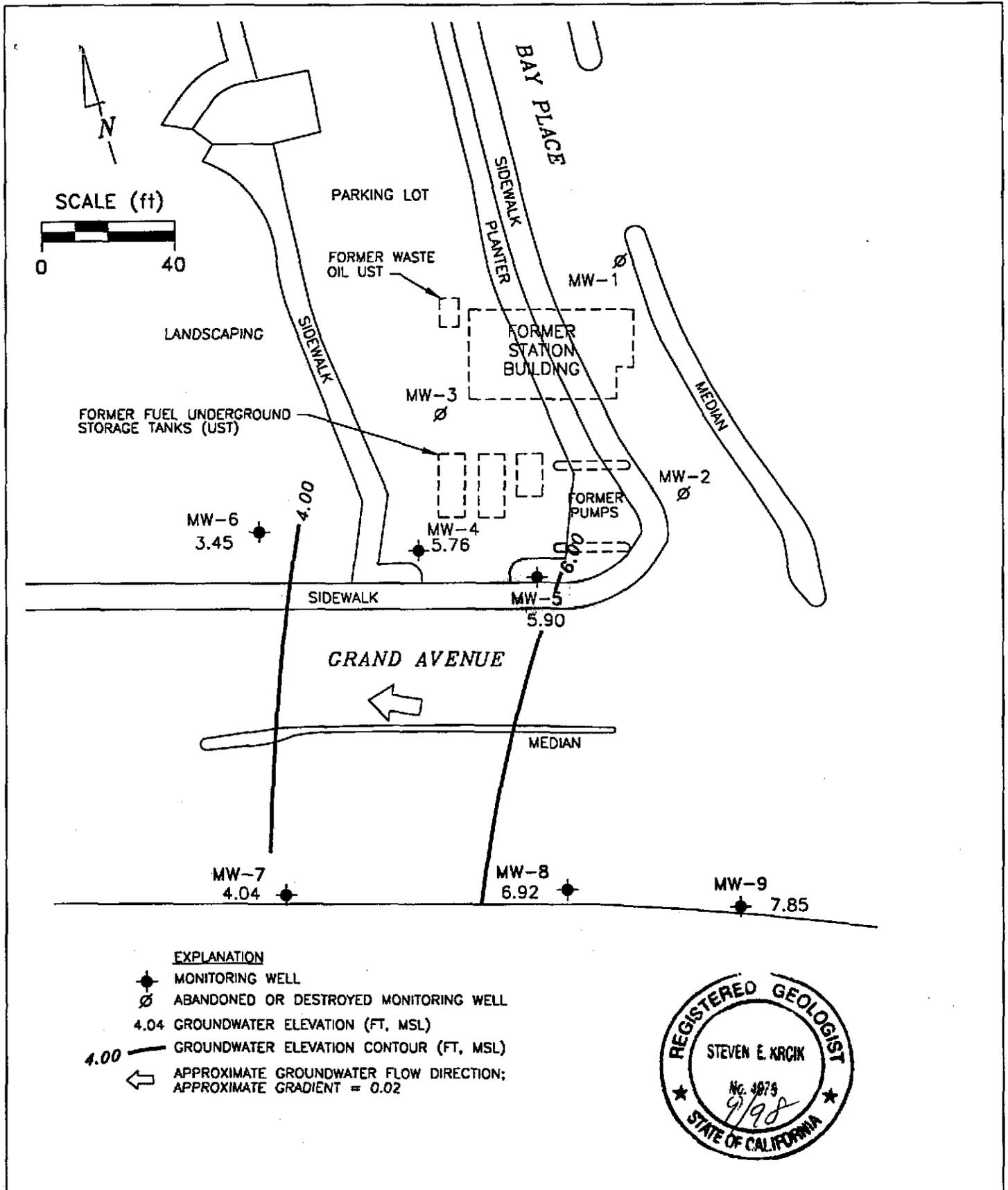
A handwritten signature in black ink, appearing to read "Francis Thie". The signature is fluid and cursive, with a long horizontal stroke across the middle.

Francis Thie  
Vice President

FPT/aa

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

# **Professional Engineering Appendix**



PREPARED BY 	Former Chevron Station 9-0019 210 Grand Avenue Oakland, California	FIGURE: 1
	GROUNDWATER ELEVATION CONTOUR MAP, JUNE 29, 1997	PROJECT: DAC04

**Table of  
Well Data and  
Analytical Results**

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylene	TOG	Chloro- form	1, 2- DCA	Freon	1, 1, 1- TCA	PCE	1, 2- DCPA	1, 2- DCE	MTBE
<b>MW-1</b>																		
03/14/89	9.63	2.89	6.74	--	600	<0.2	<0.2	3.2	1.7	<3000	1.0	<0.2	<20	<0.2	--	--	--	--
06/08/89	9.63	2.49	7.14	--	<50	<0.1	<0.5	<0.1	<0.2	--	<0.5	<0.1	<20	<0.1	--	--	--	--
09/14/89	9.63	2.42	7.21	--	<50	<0.2	<1.0	<0.2	<0.4	--	<1.0	<0.2	<1.0	0.7	--	--	--	--
12/08/89	9.63	2.34	7.29	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--
03/19/90	9.63	2.63	7.00	--	190	0.8	<0.3	7.0	3.0	--	<0.5	<0.5	--	<0.5	--	--	--	--
07/06/90	9.63	2.50	7.13	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--
10/03/90	9.63	2.10	7.53	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--
08/23/91	9.63	2.57	7.06	--	150	5.0	11	3.5	10	--	<0.5	<0.5	--	<0.5	--	--	--	--
11/22/91	9.63	2.16	7.47	--	86	7.2	11	2.9	13	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
02/26/92	9.63	2.94	6.69	--	<50	<0.5	<0.5	<0.5	1.4	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
05/22/92	9.63	2.67	6.96	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
09/29/92	9.63	2.44	7.19	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--
12/23/92	9.63	2.60	7.03	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/22/93	9.63	3.03	6.60	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/07/93	9.63	2.66	6.97	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/10/93	9.63	2.55	7.08	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/07/94	9.63	2.80	6.83	--	<50	<0.5	<0.5	<0.5	1.0	--	--	--	--	--	--	--	--	--
06/16/94	9.63	2.60	7.03	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/08/94	9.63	2.53	7.10	--	<50	1.3	1.5	<0.5	1.7	--	--	--	--	--	--	--	--	--
11/29/94	9.63	2.81	6.82	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/21/95	9.63	3.73	5.90	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/27/95	9.63	2.69	6.94	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/27/95	9.63	2.13	7.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/29/95	--	--	--	Abandoned	--	--	--	--	--	--	--	--	--	--	--	--	--	--

## 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	Chloro- form	1, 2- DCA	Freon	1, 1, 1- TCA	PCE	1, 2- DCPA	1, 2- DCE	MTBE
<b>MW-2</b>																		
03/14/89	8.99	2.91	6.08	--	<100	6.7	7.1	0.5	4.6	<3000	<1.0	0.7	<20	<0.2	--	--	--	--
06/08/89	8.99	3.77	5.22	--	--	--	--	--	--	--	--	--	--	<0.2	--	--	--	--
06/09/89	8.99	--	--	--	<100	<0.2	<1.0	<0.2	<0.4	--	<1.0	<0.2	<20	<0.2	--	--	--	--
09/14/89	8.99	3.04	5.95	--	<50	<0.2	<1.0	<0.2	<0.4	--	<1.0	<0.2	<1.0	<0.2	--	--	--	--
12/08/89	8.99	-0.26	9.25	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--
03/19/90	8.99	3.07	5.92	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--
07/06/90	9.01	2.22	6.79	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--
10/03/90	9.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08/23/91	9.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/15/91	9.01	--	--	Well Destroyed	--	--	--	--	--	--	--	--	--	--	--	--	--	--

## 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	Chloro-form	1, 2-DCA	Freon	1, 1, 1-TCA	PCE	1, 2-DCPA	1, 2-DCE	MTBE	
<b>MW-3</b>																			
03/14/89	8.19	2.16	6.02	--	<100	2.1	0.8	<0.2	2.0	<3000	<1.0	3.0	<20	<0.2	--	--	--	--	
06/08/89	8.19	2.30	5.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/09/89	8.19	--	--	--	<100	<0.5	<1.0	<0.2	<0.4	--	<1.0	3.3	<20	<0.2	--	--	--	--	
09/14/89	8.19	1.88	6.30	--	<50	<0.2	<1.0	<0.2	<0.4	--	<1.0	2.2	<1.0	<0.2	--	--	--	--	
12/08/89	8.19	-1.34	9.52	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	1.3	--	<0.5	--	--	--	--	
03/19/90	8.19	2.01	6.17	--	<50	<0.3	<0.3	<0.3	<0.6	--	0.5	1.3	--	<0.5	--	--	--	--	
07/06/90	8.19	0.67	7.52	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--	
10/03/90	8.19	0.88	7.31	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	0.83	--	<0.5	--	--	--	--	
08/23/91	8.19	2.53	5.65	--	220	16	22	5.5	16	--	<0.5	0.6	--	<0.5	--	--	--	--	
11/22/91	8.19	1.41	6.78	--	<50	<0.5	<0.5	<0.5	0.6	--	0.6	1.0	<0.5	<0.5	--	--	--	--	
02/26/92	8.19	3.54	4.65	--	<50	4.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
05/22/92	8.19	2.63	5.56	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
09/29/92	8.19	1.96	6.23	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--	
12/23/92	8.19	2.37	5.82	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--	
03/22/93	8.19	3.27	4.92	--	<50	7.0	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--	
06/07/93	8.19	2.50	5.69	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--	
09/10/93	8.19	2.15	6.04	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--	
03/07/94	8.19	3.04	5.15	--	<50	1.0	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--	
06/16/94	8.19	2.30	5.89	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--	
09/08/94	8.19	2.13	6.06	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	1.0	--	--	--	
11/29/94	8.19	3.00	5.19	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	
03/21/95	8.19	4.43	3.76	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	
06/27/95	8.19	3.09	5.10	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	
09/27/95	8.19	2.94	5.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/29/95	--	--	--	Abandoned	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

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DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylene	TOG	Chloro- form	1, 2- DCA	Freon	1, 1, 1- TCA	PCE	1, 2- DCPA	1, 2- DCE	MTBE	
<b>MW-4</b>																			
03/14/89	7.60	2.08	5.52	--	3000	810	200	30	130	<3000	<20	<5.0	<20	<5.0	--	--	--	--	
06/08/89	7.60	3.41	4.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/09/89	7.60	--	--	--	900	440	13	22	40	--	<20	<5.0	60	<5.0	--	--	--	--	
09/14/89	7.60	2.80	4.80	--	540	220	2.0	6.1	9.3	--	<1.0	2.3	<1.0	<0.2	--	--	--	--	
12/08/89	7.60	2.74	4.86	--	150	18	<0.3	1.0	<0.6	--	<0.5	1.9	--	<0.5	--	--	--	--	
03/19/90	7.60	2.95	4.65	--	270	50	<0.3	0.7	<0.6	--	<0.5	0.8	--	<0.5	--	--	--	--	
07/06/90	7.59	1.17	6.42	--	140	0.7	<0.3	0.5	<0.6	--	<0.5	0.79	--	<0.5	--	--	--	--	
10/03/90	7.59	1.20	6.39	--	180	<0.3	<0.3	2.0	<0.6	--	<0.5	0.5	--	<0.5	--	--	--	--	
08/23/91	7.59	3.17	4.42	--	400	9.9	6.8	3.1	7.1	--	<0.5	<0.5	--	<0.5	--	--	--	--	
11/22/91	7.59	2.21	5.38	--	130	3.4	1.3	3.5	6.0	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
02/26/92	7.59	4.94	2.65	--	520	15	2.7	6.1	8.6	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
05/22/92	7.59	3.63	3.96	--	460	20	2.8	5.0	6.9	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
09/29/92	7.59	2.91	4.68	--	160	1.1	1.7	0.8	2.8	--	<0.5	<0.5	--	<0.5	--	--	--	--	
12/23/92	7.59	3.96	3.63	--	110	0.7	0.5	0.9	1.7	--	--	--	--	--	--	--	--	--	
03/22/93	7.59	4.69	2.90	--	930	9.0	3.0	7.0	8.0	--	--	--	--	--	--	--	--	--	
06/07/93	7.59	3.70	3.89	--	240	2.0	0.9	3.0	3.0	--	--	--	--	--	--	--	--	--	
09/10/93	7.59	3.07	4.52	--	<50	<0.5	<0.5	0.8	<0.5	--	--	--	--	--	--	--	--	--	
03/07/94	7.59	4.44	3.15	--	550	3.0	3.0	8.0	12	--	--	--	--	--	--	--	--	--	
06/16/94	7.59	3.51	4.08	--	150	<0.5	0.6	1.5	0.7	--	--	--	--	--	--	--	--	--	
09/08/94	7.59	3.04	4.55	--	<50	<0.5	<0.5	<0.5	1.2	--	--	--	--	--	--	--	--	--	
11/29/94	7.59	4.74	2.85	--	130	<0.5	1.1	<0.5	0.58	--	--	--	--	--	--	--	--	--	
03/21/95	7.59	5.89	1.70	--	720	2.2	<2.0	5.9	<2.0	--	--	--	--	--	--	--	--	--	
06/27/95	7.59	4.21	3.38	--	100	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
09/27/95	7.59	3.84	3.75	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
12/29/95	7.59	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
10/10/96	7.59	3.71	3.88	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5	
12/19/96	7.59	2.53	5.06	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5	
03/22/97	7.59	3.42	4.17	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5	
06/29/97	10.03	5.76	4.27	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5	

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylene	TOG	Chloro- form	1, 2- DCA	Freon	1, 1, 1- TCA	PCE	1, 2- DCPA	1, 2- DCE	MTBE	
<b>MW-5</b>																			
03/14/89	8.35	1.37	6.98	--	20,000	6600	1600	270	1100	<3000	<100	<20	<20	<20	--	--	--	--	
06/08/89	8.35	3.62	4.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/09/89	8.35	--	--	--	15,000	>2800	270	240	640	--	<20	28	<20	<5.0	--	--	--	--	
06/09/89	8.35	--	--	Duplicate	12,000	5100	300	240	700	--	<200	<50	<20	<50	--	--	--	--	
09/14/89	8.35	2.98	5.37	--	15,000	>730	>320	>290	440	--	<10	<2.0	<20	<2.0	--	--	--	--	
09/14/89	8.35	--	---	Duplicate	15,000	3300	450	490	730	--	<100	<20	100	<20	--	--	--	--	
09/14/89	8.35	--	---	Triplicate	16,000	3100	550	400	690	--	<50	<10	<50	<10	--	--	--	--	
12/08/89	8.35	-0.78	9.13	--	20,000	4600	640	390	1300	--	<0.5	27	--	<0.5	--	--	--	--	
03/19/90	8.35	3.23	5.12	--	25,000	6500	1200	450	2200	--	<0.5	10	--	0.7	--	--	--	--	
07/06/90	8.35	2.54	5.81	--	30,000	5600	890	210	1400	--	<0.5	<0.5	--	<0.5	1.2	--	--	--	
10/03/90	8.35	1.45	6.90	--	29,000	6000	790	270	1500	--	<0.5	<0.5	--	<0.5	--	2.0	--	--	
08/23/91	8.35	3.30	5.05	--	36,000	6100	1200	460	2600	--	<0.5	3.9	--	<0.5	--	0.9	--	--	
11/22/91	8.35	2.10	6.25	--	21,000	8000	1500	530	2600	--	<0.5	3.9	<0.5	<0.5	1.0	0.8	--	--	
02/26/92	8.35	5.35	3.00	--	43,000	14,000	1600	640	4700	--	<0.5	2.0	<0.5	<0.5	--	--	--	--	
05/22/92	8.35	3.86	4.49	--	72,000	18,000	8100	920	10,000	--	<0.5	6.8	<0.5	<0.5	--	--	--	--	
09/29/92	8.35	3.50	4.85	--	54,000	14,000	1400	740	8100	--	<0.5	4.4	--	<0.5	--	--	--	--	
12/23/92	8.35	4.77	3.58	--	38,000	8400	910	530	5300	--	<0.5	2.9	--	<0.5	--	--	--	--	
03/22/93	8.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/07/93	8.35	-3.82	12.17	--	24,000	3000	280	360	1200	--	<0.5	<0.5	--	<0.5	--	--	--	--	
09/10/93	8.35	-0.15	8.50	--	8900	860	160	100	320	--	<5.0	<5.0	--	<5.0	--	--	--	--	
03/07/94	8.35	5.30	3.05	--	9600	2100	380	120	290	--	<12.5	<12.5	--	<12.5	--	--	--	--	
06/16/94	8.35	2.64	5.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07/08/94	8.35	2.43	5.92	--	10,000	3600	360	210	460	--	<0.5	<0.5	--	<0.5	1.2	--	2.0	--	
09/08/94	8.35	3.04	5.31	--	14,000	2800	270	170	360	--	<0.5	2.8	--	<0.5	--	--	--	--	
11/29/94	8.35	5.72	2.63	--	11,000	2800	280	130	300	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	--	
03/21/95	8.35	7.41	0.94	--	6700	1400	120	100	260	--	<0.5	0.59	<0.5	<0.5	<0.5	<0.5	--	--	
06/27/95	8.35	6.01	2.34	--	18,000	6100	480	600	990	--	<10	<10	<10	<10	<10	<10	--	--	
09/27/95	8.35	4.65	3.70	--	15,000	3600	140	210	310	--	<25	<25	<25	<25	<25	<25	--	--	
12/29/95	8.35	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
10/10/96	8.35	4.31	4.04	--	5700	1800	53	530	84	--	--	--	--	--	--	--	--	<100	
12/19/96	8.35	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
03/22/97	8.35	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
04/03/97	--	--	4.46	--	21,000	6900	4100	610	1900	--	--	--	--	--	--	--	--	530	
06/29/97	10.99	5.90	5.09	--	16,000	5300	1900	530	1600	--	--	--	--	--	--	--	--	<250	

## 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	Chloro-form	1, 2-DCA	Freon	1, 1, 1-TCA	PCE	1, 2-DCPA	1, 2-DCE	MTBE	
<b>MW-6</b>																			
07/06/90	6.56	-2.53	9.09	--	210	<0.3	<0.3	3.0	7.0	--	<0.5	<0.5	--	<0.5	--	--	--	--	--
10/03/90	6.56	0.78	5.78	--	320	<0.3	0.3	1.0	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--	--
08/23/91	6.56	-0.93	7.49	--	320	1.7	<0.5	2.1	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--	--
11/22/91	6.56	-1.07	7.63	--	190	1.9	2.2	5.4	7.7	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
02/26/92	6.56	1.01	5.55	--	120	2.0	1.5	3.5	5.1	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
05/22/92	6.56	-0.38	6.94	--	160	1.1	0.6	0.9	1.0	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
09/29/92	6.56	-0.24	6.80	--	65	0.5	1.4	0.5	0.64	--	<0.5	<0.5	--	<0.5	--	--	--	--	--
12/23/92	6.56	0.57	5.99	--	140	0.7	0.7	0.9	2.1	--	--	--	--	--	--	--	--	--	--
03/22/93	6.56	-0.51	7.07	--	71	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--
06/07/93	6.56	-1.05	7.61	--	85	<0.5	<0.5	2.0	1.0	--	--	--	--	--	--	--	--	--	--
09/10/93	6.56	1.88	4.68	--	<50	<0.5	<0.5	1.0	<0.5	--	--	--	--	--	--	--	--	--	--
03/07/94	6.56	1.34	5.22	--	<50	<0.5	<0.5	<0.5	0.8	--	--	--	--	--	--	--	--	--	--
06/16/94	6.56	2.39	4.17	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--
09/08/94	6.56	1.96	4.60	--	70	<0.5	0.6	<0.5	2.3	--	--	--	--	--	--	--	--	--	--
11/29/94	6.56	0.03	6.53	--	120	<0.5	<0.5	1.3	<0.5	--	--	--	--	--	--	--	--	--	--
03/21/95	6.56	-0.47	7.03	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--
06/27/95	6.56	0.20	6.36	--	84	<0.5	<0.5	<0.5	1.1	--	--	--	--	--	--	--	--	--	--
09/27/95	6.56	2.21	4.35	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--
12/29/95	6.56	0.41	6.15	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	3.2
03/28/96	6.56	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
04/04/96	6.56	2.75	3.81	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	<2.5
06/21/96	6.56	1.64	4.92	--	130	<0.5	<0.5	<0.5	0.66	--	--	--	--	--	--	--	--	--	<2.5
09/26/96	6.56	-0.18	6.74	--	130	<0.5	0.52	0.92	1.0	--	--	--	--	--	--	--	--	--	<2.5
12/19/96	6.56	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/22/97	6.56	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/29/97	10.23	3.45	6.78	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	<2.5

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	Chloro-form	1, 2-DCA	Freon	1, 1, 1-TCA	PCE	1, 2-DCPA	1, 2-DCE	MTBE
<b>MW-7</b>																		
07/06/90	4.99	-0.86	5.85	--	<50	<0.3	<0.3	<0.3	<0.6	<1000	<0.5	<0.5	--	<0.5	--	--	--	--
10/03/90	4.99	-1.26	6.25	--	<50	<1.5	<1.5	<1.5	<3.0	--	<0.5	<0.5	--	<0.5	--	--	--	--
08/23/91	4.99	-0.51	5.50	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--
11/22/91	4.99	-0.74	5.73	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
02/26/92	4.99	0.15	4.84	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
05/22/92	4.99	0.10	4.89	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
09/29/92	4.99	-0.56	5.55	--	<50	<0.5	<0.5	<0.5	0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--
12/23/92	4.99	0.12	4.87	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/22/93	4.99	0.94	4.05	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/07/93	4.99	0.36	4.63	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/10/93	4.99	-0.57	5.56	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/07/94	4.99	0.34	4.65	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/16/94	4.99	-0.08	5.07	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/08/94	4.99	-0.34	5.33	--	250	34	40	4.4	26	--	--	--	--	--	--	--	--	--
11/29/94	4.99	0.12	4.87	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/21/95	4.99	1.31	3.68	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/27/95	4.99	0.53	4.46	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
12/29/95	4.99	1.24	3.75	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5
03/28/96	4.99	1.74	3.25	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5
06/21/96	4.99	0.66	4.33	--	<50	<0.5	1.2	<0.5	<0.5	--	--	--	--	--	--	--	--	5.3
09/26/96	4.99	0.04	4.95	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5
12/19/96	4.99	1.81	3.18	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5
03/22/97	4.99	2.26	2.73	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5
06/29/97	8.08	4.04	4.04	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylene	TOG	Chloro- form	1, 2- DCA	Freon	1, 1, 1- TCA	PCE	1, 2- DCPA	1, 2- DCE	MTBE
<b>MW-8</b>																		
07/06/90	6.77	2.79	3.98	--	<50	<0.3	<0.3	<0.3	<0.6	<1000	<0.5	<0.5	--	<0.5	--	--	--	--
10/03/90	6.77	2.04	4.73	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--
08/23/91	6.77	2.01	4.76	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--
11/22/91	6.77	1.04	5.73	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
02/26/92	6.77	2.47	4.30	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
05/22/92	6.77	3.11	3.66	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
09/29/92	6.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	6.77	3.94	2.83	--	<50	<0.5	7.2	0.6	2.5	--	--	--	--	--	--	--	--	--
03/22/93	6.77	2.39	4.38	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/07/93	6.77	1.60	5.17	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/10/93	6.77	1.61	5.16	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/07/94	6.77	2.06	4.71	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/16/94	6.77	2.62	4.15	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/08/94	6.77	1.66	5.11	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
11/29/94	6.77	1.94	4.83	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/21/95	6.77	0.94	5.83	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/27/95	6.77	0.57	6.20	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/27/95	6.77	1.62	5.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/29/95	6.77	2.22	4.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/28/96	6.77	2.55	4.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/21/96	6.77	3.41	3.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/26/96	6.77	2.65	4.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/19/96	6.77	3.83	2.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/22/97	6.77	3.88	2.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/29/97	9.88	6.92	2.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

## 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	Chloro- form	1, 2- DCA	Freon	1, 1, 1- TCA	PCE	1, 2- DCPA	1, 2- DCE	MTBE
<b>MW-9</b>																		
07/06/90	7.63	3.02	4.61	--	<50	<0.3	<0.3	<0.3	<0.6	<1000	<0.5	<0.5	--	<0.5	--	--	--	--
10/03/90	7.63	2.49	5.14	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--
08/23/91	7.63	2.18	5.45	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--
11/22/91	7.63	2.15	5.48	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
02/26/92	7.63	5.00	2.63	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
05/22/92	7.63	3.63	4.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--
09/29/92	7.63	2.93	4.70	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5	--	--	--	--
12/23/92	7.63	3.87	3.76	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/22/93	7.63	5.52	2.11	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/07/93	7.63	4.35	3.28	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/10/93	7.63	2.45	5.18	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/07/94	7.63	4.61	3.02	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
06/16/94	7.63	3.50	4.13	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/08/94	7.63	2.84	4.79	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
11/29/94	7.63	3.71	3.92	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
03/21/95	7.63	0.14	7.49	Insuff. water	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/27/95	7.63	5.73	1.90	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/27/95	7.63	3.68	3.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/29/95	7.63	5.08	2.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/28/96	7.63	5.43	2.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/21/96	7.63	4.98	2.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/26/96	7.63	4.27	3.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/19/96	7.63	5.02	2.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/22/97	7.63	5.30	2.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/29/97	10.74	7.85	2.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

## 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	Chloro- form	1, 2- DCA	Freon	1, 1, 1- TCA	PCE	1, 2- DCPA	1, 2- DCE	MTBE	
<b>TRIP BLANK</b>																			
12/08/89	--	--	--	--	<100	<0.1	<0.2	<0.1	<0.2	--	<0.5	<0.1	--	<0.1	--	--	--	--	
06/09/89	--	--	--	--	<50	<0.5	<0.5	<0.1	<0.2	--	<0.5	<0.1	<20	<0.1	--	--	--	--	
09/14/89	--	--	--	--	<50	<0.1	<0.5	<0.1	<0.2	--	<0.5	<0.1	<0.5	<0.1	--	--	--	--	
12/08/89	--	--	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	4.4	<0.5	--	1.9	--	--	--	--	
03/19/90	--	--	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--	
07/06/90	--	--	--	--	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5	--	--	--	--	
10/03/90	--	--	--	--	<50	<0.3	<0.3	<0.3	1.0	--	<0.5	<0.5	--	<0.5	--	--	--	--	
08/23/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
11/22/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<0.5	--	--	--	--	--	
02/26/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
05/22/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
09/29/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
12/23/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
03/22/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
06/07/93	--	--	--	--	<50	<0.5	<0.5	<0.5	1.0	--	--	--	--	--	--	--	--	--	
09/10/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
03/07/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
06/16/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
09/08/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
11/29/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
03/21/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
06/27/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
09/27/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	
12/29/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	

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## 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	Chloro- form	1, 2- DCA	Freon	1, 1, 1- TCA	PCE	1, 2- DCPA	1, 2- DCE	MTBE
<b>TRIP BLANK (CONT'D)</b>																		
03/28/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5
06/21/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
09/26/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
12/19/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5
03/22/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5
06/29/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	<2.5

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994.  
 Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.  
 Resurvey of wells was performed by Ron Archer Civil Engineer Inc. on July 22, 1997.

**ABBREVIATIONS:**

TPH = Total Petroleum Hydrocarbons  
 TOG = Total Oil and Grease  
 1,2-DCA = 1,2-Dichloroethane  
 1,1,1-TCA = 1,1,1-Trichloroethane

PCE = Trichloroethene  
 1,2-DCPA = 1,2-Dichloropropane  
 1,2-DCE = 1,2-Dichloroethene  
 MTBE = Methyl t-butyl ether

# **Analytical Appendix**



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0019/970629-S2 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706G01-01	Sampled: 06/29/97 Received: 06/30/97  Analyzed: 07/07/97 Reported: 07/14/97
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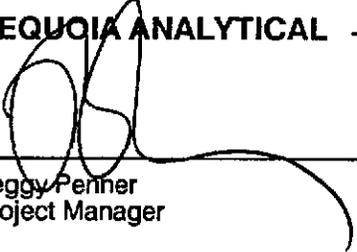
QC Batch Number: GC070797BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	102

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0019/970629-S2 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706G01-02	Sampled: 06/29/97 Received: 06/30/97  Analyzed: 07/07/97 Reported: 07/14/97
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QC Batch Number: GC070797BTEX02A  
Instrument ID: GCHP02

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

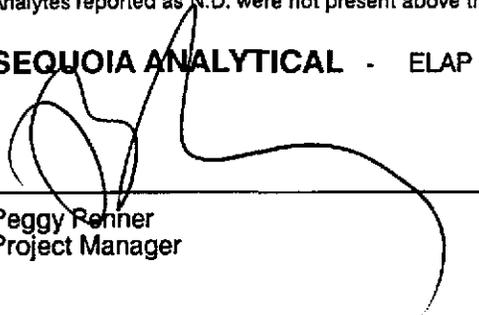
Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	16000
Methyl t-Butyl Ether	250	N.D.
Benzene	50	5300
Toluene	50	1900
Ethyl Benzene	50	530
Xylenes (Total)	50	1600
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	102

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Renner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0019/970629-S2 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706G01-03	Sampled: 06/29/97 Received: 06/30/97  Analyzed: 07/08/97 Reported: 07/14/97
Attention: Fran Thie		

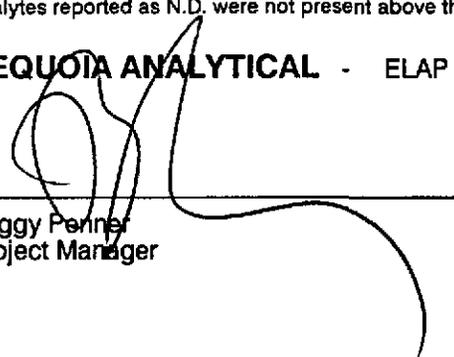
QC Batch Number: GC070897BTEX03A  
Instrument ID: GCHP03

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	105

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0019/970629-S2 Sample Descript: MW-7 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706G01-04	Sampled: 06/29/97 Received: 06/30/97 Analyzed: 07/10/97 Reported: 07/14/97
Attention: Fran Thie		

QC Batch Number: GC071097BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	89

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0019/970629-S2 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706G01-05	Sampled: 06/29/97 Received: 06/30/97 Analyzed: 07/07/97 Reported: 07/14/97
Attention: Fran Thie		

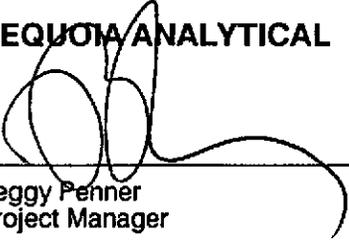
QC Batch Number: GC070797BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	108

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Project ID: <b>Chevron 9-0019 / 970629-S2</b> Matrix: <b>Liquid</b>  Work Order #: <b>9706G01 -01-02, 05</b>	Reported: <b>Jul 17, 1997</b>
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**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC070797BTEX02A	GC070797BTEX02A	GC070797BTEX02A	GC070797BTEX02A	GC070797BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030				

Analyst:	A. MirafTAB				
MS/MSD #:	9706F9902	9706F9902	9706F9902	9706F9902	9706F9902
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/7/97	7/7/97	7/7/97	7/7/97	7/7/97
Analyzed Date:	7/7/97	7/7/97	7/7/97	7/7/97	7/7/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	9.5	9.7	29	61
MS % Recovery:	100	95	97	97	102
Dup. Result:	9.8	9.2	9.4	28	59
MSD % Recov.:	98	92	94	93	98
RPD:	2.0	3.2	3.1	3.5	3.3
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK070797	BLK070797	BLK070797	BLK070797	BLK070797
Prepared Date:	7/7/97	7/7/97	7/7/97	7/7/97	7/7/97
Analyzed Date:	7/7/97	7/7/97	7/7/97	7/7/97	7/7/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.8	8.5	8.5	25	58
LCS % Recov.:	88	85	85	83	97

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

SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager

**Please Note:**

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

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

9706G01.BLA <1>





Blaine Tech Services, Inc. Client Project ID: Chevron 9-0019 / 970629-S2  
 1680 Rogers Avenue Matrix: Liquid  
 San Jose, CA 95112 Work Order #: 9706G01-03 Reported: Jul 17, 1997  
 Attention: Fran Thie

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC070897BTEX03A	GC070897BTEX03A	GC070897BTEX03A	GC070897BTEX03A	GC070897BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030				

Analyst:	D. Jirsa				
MS/MSD #:	9706G0609	9706G0609	9706G0609	9706G0609	9706G0609
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/8/97	7/8/97	7/8/97	7/8/97	7/8/97
Analyzed Date:	7/8/97	7/8/97	7/8/97	7/8/97	7/8/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.1	8.9	8.9	25	43
MS % Recovery:	91	89	89	83	72
Dup. Result:	9.4	9.1	9.2	26	56
MSD % Recov.:	94	91	92	87	93
RPD:	3.2	2.2	3.3	3.9	26
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK070897	BLK070897	BLK070897	BLK070897	BLK070897
Prepared Date:	7/8/97	7/8/97	7/8/97	7/8/97	7/8/97
Analyzed Date:	7/8/97	7/8/97	7/8/97	7/8/97	7/8/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.2	9.0	9.0	25	44
LCS % Recov.:	92	90	90	83	73

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

**SEQUOIA ANALYTICAL**  
  
 Peggy Penner  
 Project Manager

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





<b>Blaine Tech Services, Inc.</b> 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	<b>Client Project ID:</b> Chevron 9-0019 / 970629-S2 <b>Matrix:</b> Liquid <b>Work Order #:</b> 9706G01-04	<b>Reported:</b> Jul 17, 1997
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**QUALITY CONTROL DATA REPORT**

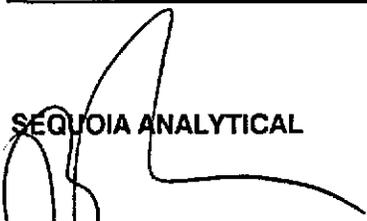
Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
<b>QC Batch#:</b>	GC071097BTEX02A	GC071097BTEX02A	GC071097BTEX02A	GC071097BTEX02A	GC071097BTEX02A
<b>Analy. Method:</b>	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
<b>Prep. Method:</b>	EPA 5030				

<b>Analyst:</b>	A. Miraftab				
<b>MS/MSD #:</b>	9706G5502	9706G5502	9706G5502	9706G5502	9706G5502
<b>Sample Conc.:</b>	N.D.	N.D.	N.D.	N.D.	N.D.
<b>Prepared Date:</b>	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97
<b>Analyzed Date:</b>	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97
<b>Instrument I.D.#:</b>	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
<b>Conc. Spiked:</b>	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
<b>Result:</b>	9.9	9.5	9.7	29	60
<b>MS % Recovery:</b>	99	95	97	97	100
<b>Dup. Result:</b>	9.9	9.5	9.7	29	63
<b>MSD % Recov.:</b>	99	95	97	97	105
<b>RPD:</b>	0.0	0.0	0.0	0.0	4.9
<b>RPD Limit:</b>	0-25	0-25	0-25	0-25	0-25

<b>LCS #:</b>	BLK071097	BLK071097	BLK071097	BLK071097	BLK071097
<b>Prepared Date:</b>	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97
<b>Analyzed Date:</b>	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97
<b>Instrument I.D.#:</b>	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
<b>Conc. Spiked:</b>	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
<b>LCS Result:</b>	8.1	7.6	7.8	23	49
<b>LCS % Recov.:</b>	81	76	78	77	82

<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**



Peggy Penner  
Project Manager

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

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

9706G01.BLA <3>





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

Client Proj. ID: Chevron 9-0019/970629-S2

Received: 06/30/97

Lab Proj. ID: 9706G01

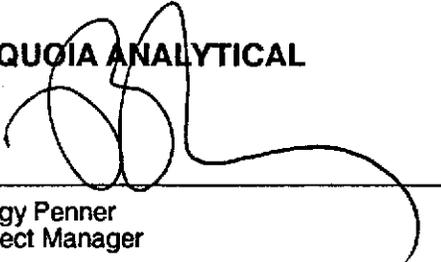
Reported: 07/14/97

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 4 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPPH Note: Sample 9706G01-02 was diluted 100-fold.

SEQUOIA ANALYTICAL

  
Peggy Penner  
Project Manager





# **Field Data Sheets**



# CHEVRON WELL MONITORING DATA SHEET

Project #: 970629-92	Station #: 9-0019
Sampler: DOUG	Date: 6-29-97
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8
Total Well Depth: 13.60	Depth to Water: 4.27
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>6.1</u>	x	<u>3</u>	=	<u>18.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1403	77.0	7.3	1000	6	
1404	76.8	7.4	1100	12	
1405	76.4	7.4	1200	19	

Did well dewater?    Yes                      (No)                      Gallons actually evacuated: 19.0

Sampling Time: 1410                      Sampling Date: 6-29-97

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 #: 970629-51	Station #: 9-0019
Sampler: DOUG	Date: 6-29-97
Well I.D.: MW-5	Well Diameter: 2 3 <b>(4)</b> 6 8 _____
Total Well Depth: 9.64	Depth to Water: 5.09
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>(PVC)</b> 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:
Bailer Disposable Bailer Middleburg Electric Submersible <b>X</b> Extraction Pump Other: _____	Bailer Disposable Bailer <b>X</b> Extraction Port Other: _____

3.0	x	3	=	8.9	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1423	74.8	7.3	1200	3	Odor
1424	75.0	7.4	990	6	
1425	75.0	7.4	1000	9	

Did well dewater? Yes <b>(No)</b>	Gallons actually evacuated: 9.0
Sampling Time: 1430	Sampling Date: 6-29-97
Sample I.D.: MW-5	Laboratory: <b>(Sequoia)</b> GTEL N. Creek Assoc. Labs
Analyzed for: <b>(TPH-G)</b> <b>(BTEX)</b> <b>(MTBE)</b> 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 #: 970629-52	Station #: 9-0019
Sampler: DUG	Date: 6-29-97
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8
Total Well Depth: 9.79	Depth to Water: 4.04
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	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: \_\_\_\_\_

0.9	x	3	=	2.8	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1348	68.8	7.4	1000	1.0	
1349	69.0	7.5	990	2.0	
1351	68.8	7.4	980	3.0	

Did well dewater? Yes  No  Gallons actually evacuated: 3.0

Sampling Time: 1355 Sampling Date: 6-29-97

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