

ENVIRONMENTAL  
HEALTH SERVICES  
MAY 24 PM 1:17



May 22, 1995

**Chevron U.S.A. Products Company**  
6001 Bollinger Canyon Rd., Bldg. L  
P.O. Box 5004  
San Ramon, CA 94583-0804

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

**Site Assessment & Remediation Group**  
Phone (510) 842-9500

Re: **Chevron Service Station #9-0121**  
3026 Lakeshore Avenue, Oakland, CA

Dear Ms. Eberle:

Enclosed is the First Quarter 1995 Groundwater Monitoring report dated April 17, 1995, prepared by our consultant Blaine Tech Services, Inc. for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), total petroleum hydrocarbons as diesel (TPH-D), and BTEX. Selected samples were also analyzed for MTBE.

Benzene was detected in monitor wells MW-1, MW-3, and MW-4 at concentrations of 160, 920, and 280 ppb, respectively. MTBE was also detected in these wells. Separate phase hydrocarbons were present in MW-2 at a measured thickness of 0.59 feet. Depth to ground water was measured at 2.2 to 9.8 feet below grade and the center of the site appears to be a high point with ground water flow direction to the west and east.

The Remediation Feasibility Study dated October 4, 1994, prepared by our consultant Pacific Environmental Group, recommended implementing Alternative Points of Compliance (Non-Attainment Areas) at this site. Based on the detection of MTBE in ground water we feel it is inappropriate to implement Non Attainment Areas at this time. *how about FP?*

Chevron will continue to monitor and sample all wells at this site on a quarterly basis to determine what impact the recent detection of MTBE may have on ground water. If you have any questions or comments, please feel free to contact me at (510) 842-8134.

Sincerely,  
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller  
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. S.A. Willer

File: 90121Q11





# BLAINE TECH SERVICES INC.

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

April 17, 1995

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

## 1st Quarter 1995 Monitoring at 9-0121

First Quarter 1995 Groundwater Monitoring at  
Chevron Service Station Number 9-0121  
3026 Lakeshore Avenue  
Oakland, CA

Monitoring Performed on March 24, 1995

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### Groundwater Sampling Report 950324-L-1

This report covers the routine quarterly monitoring of groundwater wells at this Chevron facility. Blaine Tech Services, Inc.'s work at the site includes inspection, gauging, evacuation, purgewater containment, sample collection and sample handling in accordance with standard procedures that conform to Regional Water Quality Control Board requirements.

Routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated volume of a three-case volume purge, elapsed evacuation time, total volume of water removed, and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater is, likewise, collected and transported to Chevron's Richmond Refinery for disposal.

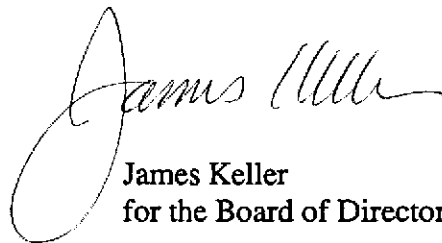
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix**.

At a minimum, Blaine Tech Services, Inc. field personnel are certified upon completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

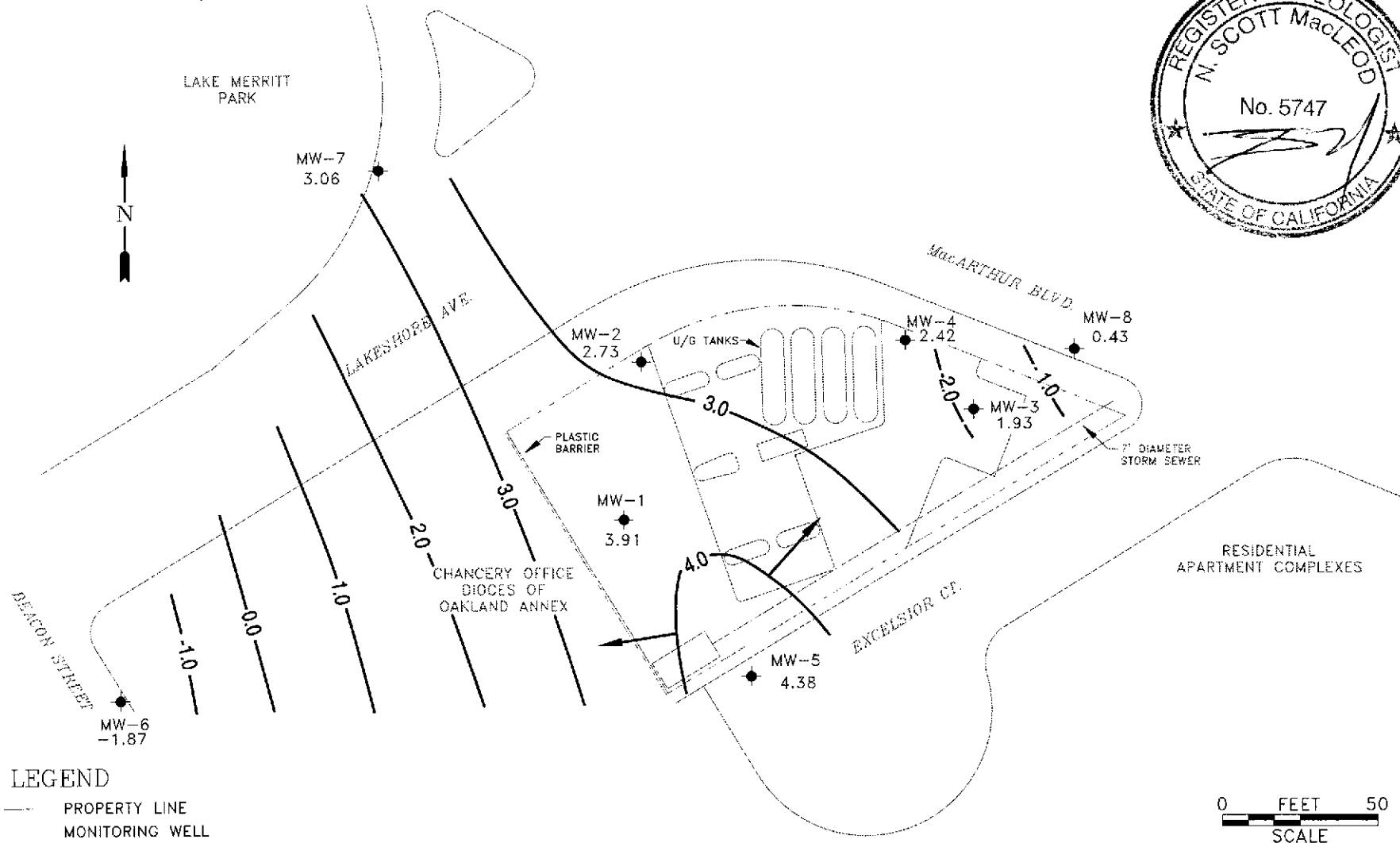
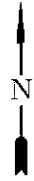
A handwritten signature in cursive script that reads "James Keller". The signature is written in black ink and is positioned above the printed name and title.

James Keller  
for the Board of Directors

JPK/dk

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

# **Professional Engineering Appendix**



**LEGEND**

- PROPERTY LINE
- MONITORING WELL
- X.XX POTENTIOMETRIC SURFACE ELEVATION (FT)
- NA NOT AVAILABLE
- POTENTIOMETRIC SURFACE CONTOUR
- GROUNDWATER FLOW DIRECTION

NOTE:  
1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS RELATIVE TO MEAN SEA LEVEL.



Base map from Groundwater Technology, Inc.



**CAMBRIA**  
Environmental Technology, Inc.

Chevron Station 9-0121  
3026 Lakeshore Avenue  
Oakland, California

VCHEVRON9-0121\0121-QM(1Q95).DWG

Ground Water Elevation  
March 24, 1995

**FIGURE**  
**1**

**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	TPH-Diesel	TDS	MTBE
<b>MW-1</b>												
08/20/91	6.82	1.62	5.20	--	5100	1700	21	220	34	260	--	--
09/30/91	6.82	1.15	5.67	Sheen	--	--	--	--	--	--	--	--
10/28/91	6.82	1.50	5.30	Free Product (0.03')	--	--	--	--	--	--	--	--
01/08/92	6.82	1.67	5.15	Sheen	5400	770	13	95	31	4400	--	--
01/13/92	6.82	--	--	--	--	--	--	--	--	--	--	--
06/23/92	6.89	1.48	5.41	--	7700	1500	40	230	100	2000	--	--
08/24/92	6.89	1.12	5.77	--	--	--	--	--	--	--	--	--
09/21/92	6.89	1.00	5.89	--	3500	1700	28	190	78	<50	--	--
10/26/92	6.89	0.95	5.94	--	--	--	--	--	--	--	--	--
12/23/92	6.89	2.18	4.71	--	60,000	7100	240	2000	1300	5500	--	--
01/08/93	6.89	--	--	--	--	--	--	--	--	--	--	--
03/25/93	6.89	2.17	4.72	--	530	1100	41	67	79	<10	--	--
06/11/93	6.89	5.37	5.07	--	7000	1900	33	120	69	--	840	9600
09/29/93	6.89	1.13	5.76	--	6600	1600	28	43	74	<10	--	--
12/20/93	6.89	1.74	5.15	--	6300	1900	36	82	65	<10	--	--
03/07/94	6.89	2.21	4.68	--	7700	1100	55	66	38	<10	--	12,000
06/17/94	6.89	1.83	5.06	--	4300	710	12	90	38	2200	--	--
09/12/94	6.89	1.24	5.65	--	6400	1500	<25	180	<25	2500	--	12,000
11/30/94	6.89	2.32	4.57	--	4900	690	26	97	60	2300*	--	3900
03/24/95	6.89	3.91↑	2.98	--	1800 ↓	160 ↓	7.3	11	14	1400** ↓	--	1300 ↓

\* Chromatogram pattern indicates a non-diesel mix.

\*\* 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	TPH-Diesel	TDS	MTBE
<b>MW-2</b>												
08/20/91	6.27	1.92	4.35	--	9300	3700	55	530	75	600	--	--
09/30/91	6.27	1.28	4.99	--	3500	2600	47	440	68	--	--	--
10/28/91	6.27	1.36	4.91	--	4600	1800	29	290	53	--	--	--
01/08/92	6.27	1.63	4.64	Sheen	14,000	4300	70	<25	130	--	--	--
01/13/92	6.27	--	--	--	--	--	--	--	--	38,000	--	--
06/23/92	6.27	1.63	4.64	Free Product (0.02')	--	--	--	--	--	--	--	--
08/24/92	6.27	1.34	4.94	Free Product (0.02')	--	--	--	--	--	--	--	--
09/21/92	6.27	1.20	5.08	Free Product (0.01')	--	--	--	--	--	--	--	--
10/26/92	6.27	0.34	5.93	--	--	--	--	--	--	--	--	--
12/23/92	6.27	--	--	--	21,000	5400	59	1300	160	160,000	--	--
01/08/93	6.27	2.57	3.70	--	--	--	--	--	--	--	--	--
03/25/93	6.27	2.89	3.38	Sheen	--	--	--	--	--	--	--	--
06/11/93	6.27	2.09	4.18	--	5900	1100	23	240	51	--	2300	--
09/29/93	6.27	0.07	6.20	--	--	--	--	--	--	--	--	--
12/20/93	6.27	1.94	4.35	Free Product (0.02')	--	--	--	--	--	--	--	--
03/07/94	6.27	2.60	3.67	--	26,000	5700	170	1000	150	<10	--	--
06/17/94	6.27	2.25	4.02	Sheen	--	--	--	--	--	--	--	--
09/12/94	6.27	1.45	4.83	Free Product (0.01')	--	--	--	--	--	--	--	--
11/30/94	6.27	2.27	4.00	Inaccessible	--	--	--	--	--	--	--	--
03/24/95	6.27	2.73 ↑	4.01	Free Product (0.59')	--	--	--	--	--	--	--	--



## 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	TPH-Diesel	TDS	MTBE
<b>MW-3</b>												
08/20/91	8.71	0.26	8.45	--	3100	200	13	15	12	200	--	--
09/30/91	8.71	-0.03	8.74	--	1000	150	8.3	13	6.7	--	--	--
10/28/91	8.71	-0.05	8.76	--	1200	120	6.7	11	7.5	--	--	--
01/08/92	8.71	-0.06	8.77	--	410	120	0.9	4.1	3.4	--	--	--
01/13/92	8.71	--	--	--	--	--	--	--	--	220	--	--
06/23/92	8.71	0.03	8.68	--	630	43	0.8	8.2	3.4	<50	--	--
08/24/92	8.71	-0.14	8.85	--	--	--	--	--	--	--	--	--
09/21/92	8.71	-0.23	8.94	--	1800	730	1.4	66	39	<50	--	--
10/26/92	8.71	-0.36	9.07	--	--	--	--	--	--	--	--	--
12/23/92	8.71	--	--	--	840	270	3.4	15	4.2	850	--	--
01/08/93	8.71	1.02	7.69	--	--	--	--	--	--	--	--	--
03/25/93	8.71	0.97	7.74	--	760	270	4.0	10	5.0	<10	--	--
06/11/93	8.71	0.19	8.52	--	200	32	1.0	5.0	2.0	--	5600	--
09/29/93	8.71	2.66	6.05	--	9300	2800	60	270	62	--	--	--
12/20/93	8.71	-0.12	8.83	--	460	250	4.0	8.0	4.0	<10	--	--
03/07/94	8.71	0.64	8.07	--	2400	260	13	35	18	<10	--	--
06/17/94	8.71	0.19	8.52	--	1000	200	4.0	6.6	6.7	<50	--	--
09/12/94	8.71	-0.21	8.92	--	360	130	3.4	4.8	3.3	<50	--	130
11/30/94	8.71	0.58	8.13	Inaccessible	--	--	--	--	--	--	--	--
03/24/95	8.71	1.93	6.78	--	4100	920	<10	23	<10	1200*	--	70

\* 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	TPH-Diesel	TDS	MTBE
<b>MW-4</b>												
08/20/91	7.37	1.32	5.05	--	1800	870	4.0	3.0	9.0	160	--	--
09/30/91	7.37	1.70	5.67	--	670	830	5.5	2.7	12	--	--	--
10/28/91	7.37	1.56	5.81	--	2800	990	5.8	4.8	19	--	--	--
01/08/92	7.37	2.03	5.34	--	2900	1200	10	7.0	18	--	--	--
01/13/92	7.37	--	--	--	--	--	--	--	--	1000	--	--
06/23/92	7.37	2.00	5.37	--	1600	380	6.5	3.0	12	<50	--	--
08/24/92	7.37	1.62	5.75	--	--	--	--	--	--	--	--	--
09/21/92	7.37	1.42	5.95	--	1200	480	5.6	3.7	11	<50	--	--
10/26/92	7.37	1.41	5.96	--	--	--	--	--	--	--	--	--
12/23/92	7.37	--	--	--	1500	700	3.6	3.2	11	1800	--	--
01/08/93	7.37	2.73	4.64	--	--	--	--	--	--	--	--	--
03/25/93	7.37	2.95	4.42	--	520	160	3.0	1.0	4.0	<10	--	--
06/11/93	7.37	2.25	5.12	--	1200	430	5.0	6.0	11	--	2600	--
09/29/93	7.37	1.57	5.80	--	1300	210	8.0	2.0	14	--	--	--
12/20/93	7.37	2.27	5.10	--	570	230	5.0	4.0	8.0	3900	--	--
03/07/94	7.37	2.36	5.01	--	2200	290	18	2.5	11	2600	--	22,000
06/17/94	7.37	1.55	5.82	--	2100	480	11	4.3	9.5	2800	--	--
09/12/94	7.37	1.73	5.64	--	1700	340	6.1	2.7	9.7	3000	--	63,000
11/30/94	7.37	1.79	5.58	Inaccessible	--	--	--	--	--	--	--	--
03/24/95	7.37	2.42↑	4.95	--	1500↓	280↓	<5.0↓	<5.0	6.9	3000*↵	--	12,000↓

\* 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	TPH-Diesel	TDS	MTBE
<b>MW-5</b>												
06/23/92	14.14	1.90	12.24	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
08/24/92	14.14	1.85	12.29	--	--	--	--	--	--	--	--	--
09/21/92	14.14	1.68	12.46	--	<50	<0.5	<0.5	<0.5	<0.5	60	--	--
10/26/92	14.14	1.62	12.52	--	--	--	--	--	--	--	--	--
12/23/92	14.14	3.02	11.12	--	--	--	--	--	--	--	--	--
01/08/93	14.14	--	--	--	--	--	--	--	--	--	--	--
03/25/93	14.14	4.40	9.74	--	<50	<0.5	<0.5	<0.5	0.9	<10	--	--
06/11/93	14.14	3.70	10.44	--	<50	<0.5	<0.5	<0.5	<0.5	--	770	--
09/29/93	14.14	2.22	11.92	--	<50	<0.5	0.6	<0.5	0.6	<10	--	--
12/20/93	14.14	--	--	--	--	--	--	--	--	--	--	--
03/07/94	14.14	2.80	11.34	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
06/17/94	14.14	2.87	11.27	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
09/12/94	14.14	1.28	12.86	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
11/30/94	14.14	2.23	11.91	--	<50	<0.5	<0.5	<0.5	<0.5	99*	--	<5.0
03/24/95	14.14	4.38 ↑	9.76	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--

\* Chromatogram pattern indicates a non-diesel mix.

## 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	TPH-Diesel	TDS	MTBE
<b>MW-6</b>												
06/23/92	4.46	-0.68	5.14	--	<50	4.3	<0.5	0.8	0.9	120	--	--
08/24/92	4.46	-0.49	4.95	--	--	--	--	--	--	--	--	--
09/21/92	4.46	-0.44	4.90	--	<250	<2.5	<2.5	<2.5	<2.5	<50	--	--
10/26/92	4.46	-1.06	5.52	--	--	--	--	--	--	--	--	--
12/23/92	4.46	-0.94	5.40	--	<50	<0.5	<0.5	<0.5	<0.5	81	--	--
01/08/93	4.46	--	--	--	--	--	--	--	--	--	--	--
03/25/93	4.46	-1.64	6.10	--	<50	<0.5	<0.5	<0.5	0.7	<10	--	--
06/11/93	4.46	-2.10	6.56	--	<50	<0.5	<0.5	<0.5	<0.5	--	15,000	--
09/29/93	4.46	-0.71	5.17	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
12/20/93	4.46	-1.47	5.93	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
03/07/94	4.46	-0.81	5.27	--	54	<0.5	<0.5	<0.5	0.6	<10	--	--
06/17/94	4.46	--	--	--	--	--	--	--	--	--	--	--
09/12/94	4.46	-0.64	5.10	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	<50
11/30/94	4.46	-1.12	5.58	--	<50	<0.5	<0.5	<0.5	<0.5	800*	--	--
03/24/95	4.46	-1.87	6.33	--	<50	<0.5	<0.5	<0.5	<0.5	490**	--	--

\* Chromatogram pattern indicates a non-diesel mix.

\*\* 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	TPH-Diesel	TDS	MTBE
<b>MW-7</b>												
06/23/92	5.26	0.88	4.38	--	<50	4.7	<0.5	<0.5	<0.5	<50	--	--
08/24/92	5.26	-0.29	5.55	--	--	--	--	--	--	--	--	--
09/21/92	5.26	-0.39	5.65	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
10/26/92	5.26	-0.25	5.51	--	--	--	--	--	--	--	--	--
12/23/92	5.26	1.31	3.95	--	<50	2.9	<0.5	<0.5	<0.5	60	--	--
01/08/93	5.26	--	--	--	--	--	--	--	--	--	--	--
03/25/93	5.26	2.76	2.50	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
06/11/93	5.26	1.80	3.46	--	<50	0.6	<0.5	<0.5	<0.5	--	2200	--
09/29/93	5.26	-0.26	5.52	--	<50	2.0	1.0	1.0	7.0	<10	--	--
12/20/93	5.26	0.85	4.41	--	<50	2.0	<0.5	<0.5	<0.5	<10	--	--
03/07/94	5.26	2.64	2.62	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
06/17/94	5.26	1.99	3.27	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
09/12/94	5.26	1.15	4.11	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
11/30/94	5.26	2.50	2.76	--	<50	<0.5	<0.5	<0.5	<0.5	92*	--	<5.0
03/24/95	5.26	3.06 ↑	2.20	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--

\* Chromatogram pattern indicates a non-diesel mix.

## 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	TPH-Diesel	TDS	MTBE
<b>MW-8</b>												
06/23/92	8.94	-15.20	24.14	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
08/24/92	8.94	0.34	8.60	--	--	--	--	--	--	--	--	--
09/21/92	8.94	0.55	8.39	--	94	<0.5	<0.5	<0.5	<0.5	<50	--	--
10/26/92	8.94	-0.18	9.12	--	--	--	--	--	--	--	--	--
12/23/92	8.94	0.83	8.11	--	<50	0.7	5.0	0.7	2.9	79	--	--
01/08/93	8.94	--	--	--	--	--	--	--	--	--	--	--
03/25/93	8.94	--	--	--	--	--	--	--	--	--	--	--
06/11/93	8.94	0.55	8.39	--	<50	<0.5	<0.5	<0.5	<0.5	--	3500	--
09/29/93	8.94	0.69	8.25	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
12/20/93	8.94	0.48	8.46	--	<50	<0.5	0.6	<0.5	1.0	<10	--	--
03/07/94	8.94	0.28	8.66	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
06/17/94	8.94	0.12	8.82	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
09/12/94	8.94	0.11	8.83	--	<50	<0.5	<0.5	<0.5	0.8	<50	--	<5.0
11/30/94	8.94	0.31	8.63	--	<50	<0.5	<0.5	<0.5	<0.5	120*	--	--
03/24/95	8.94	0.43 ↑	8.51	--	<50	<0.5	<0.5	<0.5	<0.5	110** ↓	--	--

\* Chromatogram pattern indicates a non-diesel mix.

\*\* 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	TPH-Diesel	TDS	MTBE
<b>TRIP BLANK</b>												
08/24/92	--	--	--	--	--	--	--	--	--	--	--	--
09/21/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
10/26/92	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
01/08/93	--	--	--	--	--	--	--	--	--	--	--	--
03/25/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/11/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/29/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/20/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/07/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/17/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/12/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/30/94	--	--	--	--	<50	<0.5	<0.5	<0.5	1.0	--	--	--
03/24/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994. Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.

**ABBREVIATIONS:**

TPH = Total Petroleum Hydrocarbons

TDS = Total Dissolved Solids

MTBE = Methyl-tert-butyl ether

# **Analytical Appendix**





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9503J26-01	Sampled: 03/24/95 Received: 03/27/95 Extracted: 03/28/95 Analyzed: 03/30/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC0328950HBPEXZ  
Instrument ID: GCHP5B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern: Unidentified HC	50	1400 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	126

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW1 Matrix: LIQUID Analysis Method: EPA 8020 Lab Number: 9503J26-01	Sampled: 03/24/95 Received: 03/27/95 Analyzed: 03/31/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC033195BTEX07A  
Instrument ID: GCHP-07

### Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	12	1300
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	95

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





Blaine Technical Services	Client Proj. ID: Chevron 9-0121, 950324-L1	Sampled: 03/24/95
985 Timothy Drive	Sample Descript: MW1	Received: 03/27/95
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 03/31/95
Attention: Jim Keller	Lab Number: 9503J26-01	Reported: 04/03/95

QC Batch Number: GC033195BTEX07A  
Instrument ID: GCHP-07

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	250	1800
Benzene	2.5	160
Toluene	2.5	7.3
Ethyl Benzene	2.5	11
Xylenes (Total)	2.5	14
Chromatogram Pattern: Gas & Unidentified HC		+ < C8

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70      130	95

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW3 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9503J26-02	Sampled: 03/24/95 Received: 03/27/95 Extracted: 03/28/95 Analyzed: 03/30/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC0328950HBPEXZ  
Instrument ID: GCHP5B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	1200
Chromatogram Pattern: Unidentified HC		C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	84

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW3 Matrix: LIQUID Analysis Method: EPA 8020 Lab Number: 9503J26-02	Sampled: 03/24/95 Received: 03/27/95 Analyzed: 03/31/95 Reported: 04/03/95
--	---	---

QC Batch Number: GC033195BTEX07A  
Instrument ID: GCHP07

**Methyl t-Butyl Ether (MTBE)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	50	70

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	99

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





Blaine Technical Services	Client Proj. ID: Chevron 9-0121, 950324-L1	Sampled: 03/24/95
985 Timothy Drive	Sample Descript: MW3	Received: 03/27/95
San Jose, CA 95133	Matrix: LIQUID	
Attention: Jim Keller	Analysis Method: 8015Mod/8020	Analyzed: 03/31/95
	Lab Number: 9503J26-02	Reported: 04/03/95

QC Batch Number: GC033195BTEX07A  
Instrument ID: GCHP07

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	4100
Benzene	10	920
Toluene	10	N.D.
Ethyl Benzene	10	23
Xylenes (Total)	10	N.D.
Chromatogram Pattern: Gas & Unidentified HC		+ < C8

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	99

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW4 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9503J26-03	Sampled: 03/24/95 Received: 03/27/95 Extracted: 03/28/95 Analyzed: 03/31/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC0328950HBPEXZ  
Instrument ID: GCHP4A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern: Unidentified HC	250	3000 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	77

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW4 Matrix: LIQUID Analysis Method: EPA 8020 Lab Number: 9503J26-03	Sampled: 03/24/95 Received: 03/27/95 Analyzed: 03/31/95 Reported: 04/03/95
---	---	---

QC Batch Number: GC033195BTEX07A  
Instrument ID: GCHP07

**Methyl t-Butyl Ether (MTBE)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	25	12000
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	91

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Suzanne Chin  
Project Manager







Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9503J26-03	Sampled: 03/24/95 Received: 03/27/95 Analyzed: 03/31/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC033195BTEX07A  
Instrument ID: GCH07

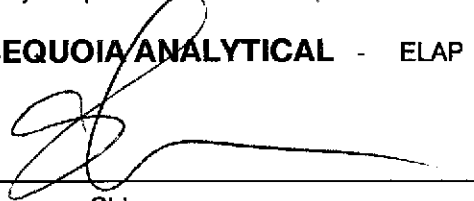
**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	1500
Benzene	5.0	280
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	6.9
Chromatogram Pattern: Gas & Unidentified HC		+ < C8

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	91

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW5 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9503J26-04	Sampled: 03/24/95 Received: 03/27/95 Extracted: 03/28/95 Analyzed: 03/30/95 Reported: 04/03/95
--	---	--

QC Batch Number: GC0328950HBPEXZ  
Instrument ID: GCHP5B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.

Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	105

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Suzanne Chin  
Project Manager





Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Chevron 9-0121, 950324-L1  
Sample Descript: MW5  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9503J26-04

Sampled: 03/24/95  
Received: 03/27/95  
Analyzed: 03/29/95  
Reported: 04/03/95

QC Batch Number: GC032995BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

**Surrogates**  
Trifluorotoluene

**Control Limits %**  
70                      130

**% Recovery**  
95

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW6 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9503J26-05	Sampled: 03/24/95 Received: 03/27/95 Extracted: 03/28/95 Analyzed: 03/30/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC0328950HBPEXZ  
Instrument ID: GCHP5B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	490
Chromatogram Pattern: Unidentified HC		C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	92

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9503J26-05	Sampled: 03/24/95 Received: 03/27/95 Analyzed: 03/29/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC032995BTEX02A  
Instrument ID: GCHP02

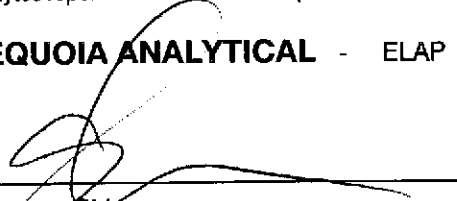
**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	88

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW7 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9503J26-06	Sampled: 03/24/95 Received: 03/27/95 Extracted: 03/28/95 Analyzed: 03/30/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC0328950HBPEXZ  
Instrument ID: GCHP5B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.

Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	99

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: MW7 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9503J26-06	Sampled: 03/24/95 Received: 03/27/95 Analyzed: 03/29/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC032995BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	92

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Suzanne Chin  
Project Manager





Blaine Technical Services	Client Proj. ID: Chevron 9-0121, 950324-L1	Sampled: 03/24/95
985 Timothy Drive	Sample Descript: MW8	Received: 03/27/95
San Jose, CA 95133	Matrix: LIQUID	Extracted: 03/28/95
Attention: Jim Keller	Analysis Method: EPA 8015 Mod	Analyzed: 03/30/95
	Lab Number: 9503J26-07	Reported: 04/03/95


QC Batch Number: GC0328950HBPEXZ  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	110
Chromatogram Pattern: Unidentified HC		C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	110

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

**SEQUOIA ANALYTICAL** - ELAP #1210



Suzanne Chin  
Project Manager







Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Client Proj. ID: Chevron 9-0121, 950324-L1  
Sample Descript: MW8  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9503J26-07

Sampled: 03/24/95  
Received: 03/27/95  
Analyzed: 03/29/95  
Reported: 04/03/95

Attention: Jim Keller

QC Batch Number: GC032995BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	80

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-0121, 950324-L1 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9503J26-08	Sampled: 03/24/95 Received: 03/27/95 Analyzed: 03/30/95 Reported: 04/03/95
Attention: Jim Keller		

QC Batch Number: GC032995BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70                      130	87

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Suzanne Chin  
Project Manager





**Sequoia  
Analytical**

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FAX (510) 988-9673  
FAX (916) 921-0100

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

Client Proj. ID: Chevron 9-0121, 950324-L1

Received: 03/27/95

Lab Proj. ID: 9503J26

Reported: 04/03/95

## LABORATORY NARRATIVE

TPPH Note: Sample 9503J26-01 diluted 5-fold.  
Sample 9503J26-02 diluted 20-fold.  
Sample 9503J26-03 diluted 10-fold.  
TEPH Note: Sample 9503J26-03 diluted 5-fold.

**SEQUOIA ANALYTICAL**

  
Suzanne Chin  
Project Manager





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

Client Project ID: Chevron 9-0121, 950324-L1  
Matrix: Liquid

Work Order #: 9503J26 -01-07

Reported: Apr 5, 1995

**QUALITY CONTROL DATA REPORT**

**Analyte:** Diesel  
**QC Batch#:** GC0328950HBPEXZ  
**Analy. Method:** EPA 8015M  
**Prep. Method:** EPA 3520

**Analyst:** B. Ali  
**MS/MSD #:** 950313403  
**Sample Conc.:** N.D.  
**Prepared Date:** 3/28/95  
**Analyzed Date:** 3/30/95  
**Instrument I.D.#:** GCHP5  
**Conc. Spiked:** 600 µg/L

**Result:** 490  
**MS % Recovery:** 82

**Dup. Result:** 470  
**MSD % Recov.:** 78

**RPD:** 4.2  
**RPD Limit:** 0-50

**LCS #:** -  
**Prepared Date:** -  
**Analyzed Date:** -  
**Instrument I.D.#:** -  
**Conc. Spiked:** -  
**LCS Result:** -  
**LCS % Recov.:** -

**MS/MSD**  
**LCS** 38-122  
**Control Limits**

**SEQUOIA ANALYTICAL**  
  
Suzanne Chin  
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

9503J26.BLA <1>





Blaine Tech Services, Inc. Client Project ID: Chevron 9-0121, 950324-L1  
 985 Timothy Drive Matrix: Liquid  
 San Jose, CA 95133 Work Order #: 9503J26-01-03 Reported: Apr 5, 1995  
 Attention: Jim Keller

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC033095BTEX07A	GC033095BTEX07A	GC033095BTEX07A	GC033095BTEX07A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	T. Granicher	T. Granicher	T. Granicher	T. Granicher
MS/MSD #:	9503I1604	9503I1604	9503I1604	9503I1604
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/31/95	3/31/95	3/31/95	3/31/95
Analyzed Date:	3/31/95	3/31/95	3/31/95	3/31/95
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	30
MS % Recovery:	100	100	100	100
Dup. Result:	10	10	10	29
MSD % Recov.:	100	100	100	97
RPD:	0.0	0.0	0.0	3.4
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-

MS/MSD				
LCS	71-133	72-128	72-130	71-120
Control Limits				

**SEQUOIA ANALYTICAL**

Suzanne Chin  
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

9503J26.BLA <2>





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

Client Project ID: Chevron 9-0121, 950324-L1  
Matrix: Liquid

Work Order #: 9503J26-04-08

Reported: Apr 5, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC032995BTEX02A	GC032995BTEX02A	GC032995BTEX02A	GC032995BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	9503E0206	9503E0206	9503E0206	9503E0206
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/29/95	3/29/95	3/29/95	3/29/95
Analyzed Date:	3/29/95	3/29/95	3/29/95	3/29/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	9.6	9.7	9.7	29
MSD % Recov.:	96	97	97	97
RPD:	4.1	3.0	3.0	6.7
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-

MS/MSD	71-133	72-128	72-130	71-120
LCS				
Control Limits				

**Please Note:**

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

**SEQUOIA ANALYTICAL**

*Suzanne Chin*  
Project Manager

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

9503J26.BLA <3>



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

Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>9-0121</u>	Chevron Contact (Name) <u>Mark Miller</u>
	Facility Address <u>3026 Lakeshore Ave., Oakland, CA</u>	(Phone) <u>(510) 842-8134</u>
Consultant Project Number <u>950324-L1</u>	Consultant Name <u>Blaine Tech Services, Inc.</u>	Laboratory Name <u>Sequoia</u>
Address <u>985 Timothy Dr., San Jose, CA 95133</u>	Project Contact (Name) <u>Jim Keller</u>	Laboratory Release Number <u>2172440</u>
(Phone) <u>08-995-5535</u> (Fax Number) <u>408-293-8773</u>		Samples Collected by (Name) <u>LAD B OLVER</u>
		Collection Date <u>3-24-95</u>
		Signature <u>[Signature]</u>

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)	Analytes To Be Performed											DO NOT BILL FOR TB-LB	Remarks				
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8140)	Extractable Organics (8270)	Metals: Cd, Cr, Pb, Zn, Ni (ICAP or AA)	MTBE								
MW1		5	W	D	1315	HCL	Y	✓	✓															01 AE
MW3		4			1205			✓	✓															02 AD
MW4		4			1250			✓	✓															03 ↓
MW5		5			1047			✓	✓															04 AE
MW6		5			1015			✓	✓															05
MW7		5			945			✓	✓															06
MW8		5			1135			✓	✓															07
TB		2						✓	✓															08 AP

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>ITS</u>	Date/Time <u>3/27/95 9:35 AM</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>Sequoia</u>	Date/Time <u>3/27/95</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days <u>10 Days</u> As Contracted
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>Sequoia</u>	Date/Time <u>3/27/11/15</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>[Signature]</u>	Date/Time <u>[Signature]</u>	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Date/Time		

COC-3LDWG/03 91/ACH

# **Field Data Sheets**





# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>950324 L1</u>	Station # <u>CHEV#9-0121</u>
Sampler: <u>LAD</u>	Date Sampled: <u>3-24-95</u>
Well I.D.: <u>MW 1</u>	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before <u>19.32</u> After	Depth to Water: Before <u>2.98</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade      Other --

<u>10.6</u>	x	<u>3</u>	=	<u>31.8</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer  
 Middleburg  
Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: ~~Bailer~~ DISPOSABLE  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>1302</u>	<u>65.0</u>	<u>7.5</u>	<u>2840.</u>	<u>—</u>	<u>11</u>	
<u>1304</u>	<u>64.4</u>	<u>7.5</u>	<u>1280.</u>	<u>—</u>	<u>21</u>	
<u>1306</u>	<u>64.4</u>	<u>7.3</u>	<u>1150.</u>	<u>—</u>	<u>32</u>	

Did Well Dewater? NO If yes, gals.

Gallons Actually Evacuated: 32.

Sampling Time: 1315

Sample I.D.: MW-1

Laboratory: SEQUOIA

Analyzed for: TPHC, BTEX, TPHD

Duplicate I.D.:

Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: 95032461	Station # CHEV. #9-0121
Sampler: LAD	Date Sampled: 3-24-95
Well I.D.: MW 2	Well Diameter: (circle one) 2 3 4 <u>0.25</u>
Total Well Depth: Before — After —	Depth to Water: Before 4.01 After
Depth to Free Product: 3.42	Thickness of Free Product (feet): 0.59
Measurements referenced to: <u>EVC</u> Grade Other --	

_____ X _____	= _____	_____ gallons
1 Case Volume	Specified Volumes	

Purging: Bailer Middleburg Electric Submersible Suction Pump Type of Installed Pump _____	Sampling: Bailer Middleburg Electric Submersible Suction Pump Installed Pump _____
---	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
						FREE PRODUCT 0.59 THICK
		NOT	SAMPLED			

Did Well Dewater?      If yes, gals.      Gallons Actually Evacuated:

Sampling Time: NOT SAMPLED

Sample I.D.:      Laboratory:

Analyzed for:

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

Analyzed for:

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: 950324 L1	Station # CHEV. #9-0121
Sampler: LAD	Date Sampled: 3-24-95
Well I.D.: MW-3	Well Diameter: (circle one) 2 3 4 6 <u>0.75</u>
Total Well Depth: Before 17.45 After	Depth to Water: Before 6.78 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade Other --

1.0" DIA VCF  
0.75" - 0.02  
0.04

<u>0.2</u>	x	<u>3</u>	=	<u>0.6</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer 1/2" TEFLON HOSE  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer 1/2" TEFLON HOSE  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1155	63.2	7.4	4020	—	.2	ODOR
1157	62.8	7.4	3570	—	.4	
1202	62.8	7.3	3620	—	.6	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: .6

Sampling Time: 1205

Sample I.D.: MW3

Laboratory: SEQUOIA

Analyzed for: TPH, BTEX, TPHD

Duplicate I.D.:

Cleaning Blank I.D.:

Analyzed for: ☒

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: 950324L1	Station # CHEV. #9-0121
Sampler: LAD	Date Sampled: 3-24-95
Well I.D.: MW-4	Well Diameter: (circle one) 2 3 4 <u>0.75"</u>
Total Well Depth: Before 10.38 After	Depth to Water: Before 4.95 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade Other --

. 23	x	3	=	. 7
1 Case Volume		Specified Volumes		gallons

Purging: Bailer 1/2" TEFLON HOSE  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer 1/2" TEFLON HOSE  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1240	67.4	7.7	3270	—	.25	ODOR, BLACK
1242	65.0	7.4	3780	—	.50	WATER
1246	64.8	7.2	3930	—	.70	

Did Well Dewater? NO If yes, gals.

Gallons Actually Evacuated: 0.7

Sampling Time: 1250

Sample I.D.: MW4

Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD

Duplicate I.D.:

Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: 950324 L1	Station # CHEV 9-0121
Sampler: LAD	Date Sampled: 3-24-95
Well I.D.: MW5	Well Diameter: (circle one) ② 3 4 6
Total Well Depth: Before 35.99 After	Depth to Water: Before 9.76 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade Other --

4.2	x	3	=	12.6
1 Case Volume		Specified Volumes		gallons

Purging: Bailer DISPOSABLE  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer DISPOSABLE  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1033	61.6	8.3	1190	—	5	
1040	62.2	7.9	1130	—	9	
1047	62.2	7.7	1130	—	13	

Did Well Dewater? ND If yes, gals.                      Gallons Actually Evacuated: 13

Sampling Time: 1047

Sample I.D.: MW5                      Laboratory: SEQUOIA

Analyzed for: TPH-G, BTEX, TPHD

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

Analyzed for:

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>950324-L1</u>	Station # <u>CHEV#9-0121</u>
Sampler: <u>LAD</u>	Date Sampled: <u>3-24-95</u>
Well I.D.: <u>MW-6</u>	Well Diameter: (circle one) <u>3</u> 4 6
Total Well Depth: Before <u>19.01</u> After	Depth to Water: Before <u>6.33</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade      Other --

<u>2.0</u>	x	<u>3</u>	=	<u>6.0</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer X DISPOS,  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer X DISPOS,  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>1000</u>	<u>64.2</u>	<u>6.6</u>	<u>1250.</u>	<u>—</u>	<u>2.</u>	<u>FOAMY BLACK</u>
<u>1005</u>	<u>65.6</u>	<u>6.8</u>	<u>1240.</u>	<u>—</u>	<u>4.</u>	<u>WATER WITH</u>
<u>1010</u>	<u>65.6</u>	<u>7.0</u>	<u>1250.</u>	<u>—</u>	<u>6.</u>	<u>SULFUR ODOR</u>

Did Well Dewater? NO If yes, gals.      Gallons Actually Evacuated: 6.

Sampling Time: 1015

Sample I.D.: MW-6      Laboratory: SEQUOIA

Analyzed for: TPH6, BTEX, TPHD

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

Analyzed for:

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>950324-L1</u>	Station # <u>CHEV # 9-0121</u>
Sampler: <u>LAD</u>	Date Sampled: <u>3-24-95</u>
Well I.D.: <u>MW-7</u>	Well Diameter: (circle one) <u>(2) 3 4 6</u>
Total Well Depth: Before <u>15.04</u> After	Depth to Water: Before <u>2.20</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade      Other --

<u>2.1</u>	x	<u>3</u>	=	<u>6.3</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer X DISPOS.  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer X DISPOS  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>930</u>	<u>61.6</u>	<u>6.7</u>	<u>2530.</u>	<u>—</u>	<u>3.</u>	
<u>935</u>	<u>61.2</u>	<u>6.3</u>	<u>2380.</u>	<u>—</u>	<u>5.</u>	
<u>940</u>	<u>61.0</u>	<u>6.3</u>	<u>2360.</u>	<u>—</u>	<u>7.</u>	

Did Well Dewater? NO If yes, gals.      Gallons Actually Evacuated: 7.

Sampling Time: 945

Sample I.D.: MW-7      Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD

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

Analyzed for:

Shipping Notations:

Additional Notations:



# CHEVRON WELL MONITORING DATA SHEET

Project #: 950324-9L1	Station # CHEV#9-0121
Sampler: LAD	Date Sampled: 3-24-95
Well I.D.: MW-8	Well Diameter: (circle one) ② 3 4 6
Total Well Depth: Before 25.06 After	Depth to Water: Before 8.51 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade      Other --

2.6	x	3	=	7.8
1 Case Volume		Specified Volumes		gallons

Purging: Bailer x DISPOS.  
Middleburg  
Electric Submersible  
Suction Pump  
Type of Installed Pump \_\_\_\_\_

Sampling: Bailer x DISPOS.  
Middleburg  
Electric Submersible  
Suction Pump  
Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1114	60.8	7.7	2030	—	3.	
1120	61.2	7.4	2180	—	6.	
1128	61.4	7.5	2240	—	8.	

Did Well Dewater? NO If yes, gals.

Gallons Actually Evacuated: 8

Sampling Time: 1135

Sample I.D.: MW 8

Laboratory: SEQUOIA

Analyzed for: TPH-G, BTEX, TPHD

Duplicate I.D.:

Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations: