



af 11/10/95  
**Chevron**

December 26, 1995

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

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

**Mark A. Miller**  
SAR Engineer  
Phone No. 510 842-8134  
Fax No. 510 842-8252

**Re: Former Chevron Service Station #9-2384  
15526 Hesperian Boulevard, San Lorenzo, CA**

Dear Ms. Leech:

Enclosed is the Third Quarter 1995 Groundwater Monitoring Report dated November 9, 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) and BTEX. Dissolved concentrations of these constituents observed during the past quarter are consistent with historical results. Depth to ground water was measured at approximately 12.0 to 12.9 feet below grade and the direction of flow is to the west.

The enclosed report also includes ground water sampling data from newly installed wells MW-7 and MW-8. It appears that the extent of the dissolved hydrocarbon plume has been defined and monitoring frequency reductions as previously discussed in our June 15, 1995, letter are appropriate. Wells MW-6, MW-7, and MW-8 will be monitored and sampled semiannually and well MW-5 will be monitored and sampled annually. The monitoring frequency will be adjusted if necessary should concentrations in these wells not remain statistically consistent with historical results. **We would appreciate your formal concurrence with this plan.**

If you have any question 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

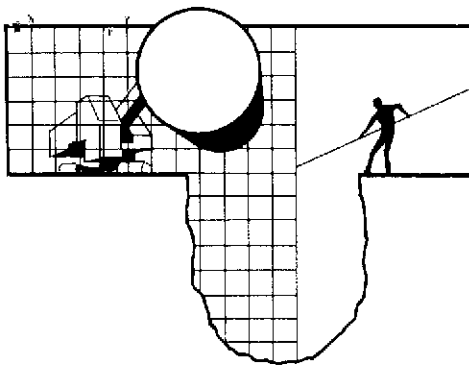
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DEC 29 1995  
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Ms. Amy Leech  
December 26, 1995  
Page 2

cc: Ms. B.C. Owen

Mr. Andy On  
Insta-Lube  
736 West MacArthur Boulevard  
Oakland, CA 94609



# BLAINE TECH SERVICES INC.

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

November 9, 1995

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

## 3rd Quarter 1995 Monitoring at 9-2384

Third Quarter 1995 Groundwater Monitoring at  
Chevron Service Station Number 9-2384  
15526 Hesperian Blvd.  
San Lorenzo, CA

Monitoring Performed on September 25, 1995

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### Groundwater Sampling Report 950925-A-2

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.

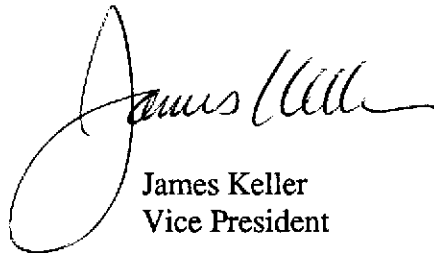
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater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

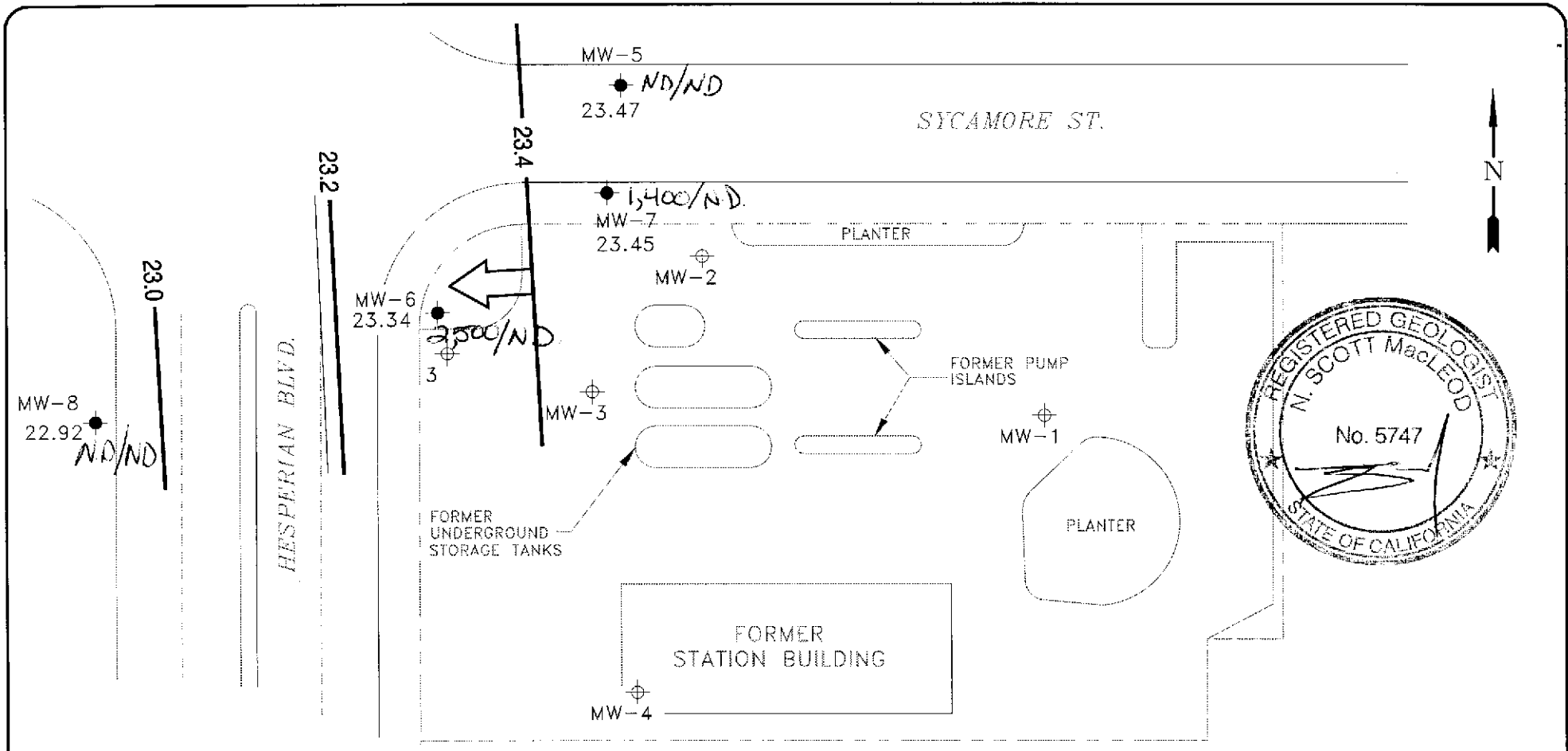
A handwritten signature in black ink, appearing to read "James Keller". The signature is fluid and cursive, with a large initial "J" that loops around the first part of the name.

James Keller  
Vice President

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
- ⊕ ABANDONED MONITORING WELL (FORMER LOCATION OF MW-3)
- X.XX POTENTIOMETRIC SURFACE ELEVATION (FT)
- ← GROUNDWATER FLOW DIRECTION

Base map from Groundwater Technology, Inc.

**CAMBRIA**  
Environmental Technology, Inc.

Former Chevron Station 9-2384  
15526 Hesperian Blvd.  
San Lorenzo, California  
VCHEVRON\9-2384\2385-QM.DWG

Ground Water Elevation  
September 25, 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
<b>MW-1</b>									
06/04/92	35.64	22.52	13.12	--	<50	<0.5	<0.5	<0.5	<0.5
07/30/92	35.64	21.82	13.82	--	--	--	--	--	--
08/25/92	35.64	21.44	14.20	--	--	--	--	--	--
09/23/92	35.64	21.05	14.59	--	<50	<0.5	<0.5	<0.5	<0.5
12/29/92	35.64	21.36	14.28	--	<50	<0.5	<0.5	<0.5	<0.5
03/19/93	35.64	24.74	10.90	--	<50	<0.5	<0.5	<0.5	<1.5
07/02/93	35.65	24.24	11.41	--	<50	<0.5	<0.5	<0.5	<1.5
09/22/93	35.65	22.88	12.77	--	<50	0.9	0.9	<0.5	<1.5
10/01/93	35.65	22.72	12.93	--	--	--	--	--	--
03/10/94	35.65	23.52	12.13	--	<50	<0.5	<0.5	<0.5	<0.5
04/12/94	35.65	23.34	12.31	--	--	--	--	--	--
06/17/94	35.65	23.14	12.51	--	<50	<0.5	<0.5	<0.5	<0.5
09/01/94	35.65	22.28	13.37	--	<50	<0.5	<0.5	<0.5	<0.5
11/28/94	35.65	22.35	13.30	--	<50	<0.5	<0.5	<0.5	<0.5
03/14/95	35.65	25.22	10.43	--	<50	<0.5	<0.5	<0.5	<0.5
06/28/95	--	--	--	Destroyed	--	--	--	--	--
<b>MW-2</b>									
06/04/92	35.85	22.37	13.48	--	6700	910	17	210	30
07/30/92	35.85	21.68	14.17	--	--	--	--	--	--
08/25/92	35.85	21.29	14.56	--	--	--	--	--	--
09/23/92	35.85	20.90	14.95	--	1500	110	1.2	81	<0.5
12/29/92	35.85	21.24	14.61	--	1200	51	1.1	27	<0.5
03/19/93	35.85	24.61	11.24	--	750	37	1.0	34	1.6
07/02/93	35.86	24.10	11.76	--	2100	45	1.4	87	4.8
09/22/93	35.86	22.74	13.12	--	880	23	2.8	38	<1.5
10/01/93	35.86	22.56	13.30	--	--	--	--	--	--
03/10/94	35.86	23.43	12.43	--	230	6.9	1.9	12	0.6
04/12/94	35.86	23.24	12.62	--	--	--	--	--	--
06/17/94	35.86	23.02	12.84	--	330	1.6	<0.5	3.9	2.5
09/01/94	35.86	22.19	13.67	--	400	3.0	2.0	6.4	<0.5
11/28/94	35.86	22.26	13.60	--	210	0.56	<0.5	1.1	<0.5
03/14/95	35.86	25.17	10.69	--	390	<0.5	<0.5	2.7	<0.5
06/28/95	--	--	--	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
<b>MW-3</b>									
06/04/92	35.42	22.30	13.12	--	460	12	0.8	5.8	14
07/30/92	35.42	21.61	13.81	--	--	--	--	--	--
08/25/92	35.42	21.22	14.20	--	--	--	--	--	--
09/23/92	35.42	20.84	14.58	--	1100	62	1.5	110	4.0
12/29/92	35.42	21.20	14.22	--	450	21	0.7	12	3.0
03/19/93	35.42	24.55	10.87	--	1200	67	1.3	96	5.5
07/02/93	35.43	24.06	11.37	--	610	73	0.5	42	<1.5
09/22/93	35.43	22.72	12.71	--	400	<0.5	0.6	2.7	<1.5
10/04/93	35.43	22.55	12.88	--	--	--	--	--	--
03/10/94	35.43	23.35	12.08	--	65	1.6	1.3	1.3	1.1
04/12/94	35.43	23.18	12.25	--	--	--	--	--	--
06/17/94	35.43	22.90	12.53	--	160	9.2	<0.5	2.9	2.7
09/01/94	35.43	22.15	13.28	--	190	3.2	1.1	3.1	6.5
11/28/94	35.43	22.23	13.20	--	51	<0.5	<0.5	<0.5	<0.5
03/14/95	35.43	25.09	10.34	--	1100	18	<2.5	89	<2.5
06/28/95	--	--	--	Destroyed	--	--	--	--	--
<b>MW-4</b>									
07/02/93	35.73	23.96	11.77	--	80	<0.5	0.6	<0.5	<1.5
09/22/93	35.73	--	--	--	--	--	--	--	--
10/01/93	35.73	22.61	13.12	--	<50	<0.5	<0.5	<0.5	<0.5
03/10/94	35.73	--	--	--	--	--	--	--	--
04/12/94	35.73	23.11	12.62	--	<50	<0.5	<0.5	<0.5	<0.5
06/17/94	35.73	22.90	12.83	--	<50	<0.5	<0.5	<0.5	<0.5
09/01/94	35.73	22.05	13.68	--	<50	<0.5	<0.5	<0.5	<0.5
11/28/94	35.73	22.15	13.58	--	<50	<0.5	<0.5	<0.5	<0.5
03/14/95	35.73	24.83	10.90	--	<50	<0.5	<0.5	<0.5	<0.5
06/28/95	--	--	--	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
<b>MW-5</b>									
07/02/93	35.50	24.08	11.42	--	<50	<0.5	<0.5	<0.5	<1.5
09/22/93	35.50	--	--	--	--	--	--	--	--
10/01/93	35.50	--	--	--	--	--	--	--	--
03/10/94	35.50	--	--	--	--	--	--	--	--
04/12/94	35.50	23.25	12.25	--	<50	<0.5	<0.5	<0.5	<0.5
06/17/94	35.50	23.02	12.48	--	<50	<0.5	<0.5	<0.5	<0.5
09/01/94	35.50	22.17	13.33	--	<50	<0.5	<0.5	<0.5	<0.5
11/28/94	35.50	22.28	13.22	--	<50	<0.5	<0.5	<0.5	<0.5
03/14/95	35.50	25.18	10.32	--	<50	<0.5	<0.5	<0.5	<0.5
06/28/95	35.50	25.10	10.40	--	<50	<0.5	<0.5	<0.5	<0.5
09/25/95	35.50	23.47	12.03	--	<50	<0.5	<0.5	<0.5	<0.5
<b>MW-6</b>									
07/02/93	36.01	23.94	12.07	--	14,000	330	28	980	580
09/22/93	36.01	--	--	--	--	--	--	--	--
10/01/93	36.01	23.30	12.71	--	<50	<0.5	<0.5	<0.5	<0.5
03/10/94	36.01	--	--	--	--	--	--	--	--
04/12/94	36.01	23.11	12.90	--	3400	32	<0.5	0.7	67
06/17/94	36.01	22.80	13.21	--	2200	16	<0.5	30	17
09/01/94	36.01	22.03	13.98	--	4100	62	3.9	93	53
11/28/94	36.01	22.15	13.86	--	1400	10	<1.0	18	9.8
03/14/95	36.01	24.99	11.02	--	4200	12	<10	92	39
06/28/95	36.01	24.89	11.12	--	4100	52	<5.0	<5.0	18
09/25/95	36.01	23.34	12.67	--	2500	<5.0	<5.0	25	25
<b>MW-7</b>									
09/25/95	35.50	23.45	12.05	--	1400	<2.5	<2.5	<2.5	<2.5
<b>MW-8</b>									
09/25/95	35.84	22.92	12.92	--	<50	<0.5	<0.5	<0.5	<0.5

## 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
<b>TRIP BLANK</b>									
06/04/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
09/23/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
12/29/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
03/19/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5
07/02/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5
09/22/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5
10/01/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
03/10/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
04/12/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
06/17/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
09/01/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
11/28/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
03/14/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
06/28/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5
09/25/95	--	--	--	--	<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

# Analytical Appendix



Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Chevron 9-2384, 950925-A2 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9509G53-01	Sampled: 09/25/95 Received: 09/26/95 Analyzed: 09/28/95 Reported: 10/04/95
---	--	---

QC Batch Number: GC092895BTEX02A  
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	84

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-2384, 950925-A2 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9509G53-02	Sampled: 09/25/95 Received: 09/26/95 Analyzed: 09/28/95 Reported: 10/04/95
--	--	---

QC Batch Number: GC092895BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	2500
Benzene	5.0	N.D.
Toluene	5.0	N.D.
Ethyl Benzene	5.0	25
Xylenes (Total)	5.0	25
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	81

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Chevron 9-2384, 950925-A2 Sample Descript: MW-7 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9509G53-03	Sampled: 09/25/95 Received: 09/26/95 Analyzed: 09/28/95 Reported: 10/04/95
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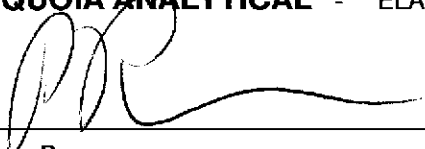
QC Batch Number: GC092895BTEX21A  
Instrument ID: GCHP21

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

Analyte	Detection Limit ug/L	Sample Results ug/L
<b>TPPH as Gas</b>	<b>250</b>	<b>1400</b>
Benzene	2.5	N.D.
Toluene	2.5	N.D.
Ethyl Benzene	2.5	N.D.
Xylenes (Total)	2.5	N.D.
Chromatogram Pattern: <b>Weathered Gas</b>		<b>C10-C12</b>
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	72

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Chevron 9-2384, 950925-A2 Sample Descript: MW-8 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9509G53-04	Sampled: 09/25/95 Received: 09/26/95 Analyzed: 09/30/95 Reported: 10/04/95
---	--	---


QC Batch Number: GC093095BTEX17A  
Instrument ID: GCHP17

**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	100

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

**SEQUOIA ANALYTICAL** - ELAP #1210



Peggy Penner  
Project Manager







Blaine Technical Services	Client Proj. ID: Chevron 9-2384, 950925-A2	Sampled: 09/25/95
985 Timothy Drive	Sample Descript: TB	Received: 09/26/95
San Jose, CA 95133	Matrix: LIQUID	
Attention: Jim Keller	Analysis Method: 8015Mod/8020	Analyzed: 09/28/95
	Lab Number: 9509G53-05	Reported: 10/04/95

QC Batch Number: GC092895BTEX02A  
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	80

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

**SEQUOIA ANALYTICAL** - ELAP #1210



Peggy Penner  
Project Manager





**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

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

(415) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
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 9-2384, 950925-A2  
Lab Proj. ID: 9509G53

Received: 09/26/95

Reported: 10/04/95

### LABORATORY NARRATIVE

TPPH Note: Sample 9509G53-02 was diluted 10-fold.  
Sample 9509G53-03 was diluted 5-fold.

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager





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

Client Project ID: Chevron 9-2384, 950925-A2  
Matrix: Liquid

Work Order #: 9509G53 -01, 02, 05

Reported: Oct 10, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC092895BTEX02A	GC092895BTEX02A	GC092895BTEX02A	GC092895BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9509A6110	9509A6110	9509A6110	9509A6110
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/28/95	9/28/95	9/28/95	9/28/95
Analyzed Date:	9/28/95	9/28/95	9/28/95	9/28/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.7	9.8	9.4	28
MS % Recovery:	97	98	94	93
Dup. Result:	9.4	9.5	9.3	28
MSD % Recov.:	94	95	93	93
RPD:	3.1	3.1	1.1	0.0
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 Control Limits	71-133	72-128	72-130	71-120
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**

*R. Penner*  
Peggy Penner  
Project Manager

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

9509G53.BLA <1>





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

Client Project ID: Chevron 9-2384, 950925-A2  
Matrix: Liquid

Work Order #: 9509G53-03

Reported: Oct 10, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC092895BTEX21A	GC092895BTEX21A	GC092895BTEX21A	GC092895BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9509A6110	9509A6110	9509A6110	9509A6110
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/28/95	9/28/95	9/28/95	9/28/95
Analyzed Date:	9/28/95	9/28/95	9/28/95	9/28/95
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.2	9.3	9.3	28
MS % Recovery:	92	93	93	93
Dup. Result:	9.9	10	10	30
MSD % Recov.:	99	100	100	100
RPD:	7.3	7.3	7.3	6.9
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	Control Limits
71-133	72-128	72-130
71-120		

**SEQUOIA ANALYTICAL**

*Peggy Penner*  
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

9509G53.BLA <2>





Blaine Tech Services, Inc. Client Project ID: Chevron 9-2384, 950925-A2  
 985 Timothy Drive Matrix: Liquid  
 San Jose, CA 95133  
 Attention: Jim Keller Work Order #: 9509G53-04 Reported: Oct 10, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC093095BTEX17A	GC093095BTEX17A	GC093095BTEX17A	GC093095BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	9509C0004	9509C0004	9509C0004	9509C0004
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/30/95	9/30/95	9/30/95	9/30/95
Analyzed Date:	9/30/95	9/30/95	9/30/95	9/30/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	11	10	32
MS % Recovery:	110	110	100	107
Dup. Result:	10	9.9	9.9	30
MSD % Recov.:	100	99	99	100
RPD:	9.5	11	1.0	6.5
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	Benzene	Toluene	Ethyl Benzene	Xylenes
LCS	71-133	72-128	72-130	71-120
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**

*Peggy Fenner*  
 Peggy Fenner  
 Project Manager

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

9509G53.BLA <3>





# **Field Data Sheets**





# CHEVRON WELL MONITORING DATA SHEET

Project #: 950925-A2	Station #: 9-2384
Sampler: RV	Start Date: 9-25-95
Well I.D.: MWS	Well Diameter: (circle one) ② 3 4 6
Total Well Depth: Before 20.63 After	Depth to Water: Before 12.03 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: PVC	Grade: Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>1.3</u>	$\times$	<u>3</u>	$=$	<u>3.9</u>	gallons
1 Case Volume		Specified Volumes			

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

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1438	64.6	7.0	1000	—	1.5	
1441	64.0	7.2	1000	—	3.0	
1443	63.8	7.1	1000	—	4.0	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 4.0

Sampling Time: 1445 Sampling Date: 9-25-95

Sample I.D.: MWS Laboratory: SEQ

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

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

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>950925-AZ</u>	Station #: <u>9-2384</u>
Sampler: <u>RV</u>	Start Date: <u>9-25-95</u>
Well I.D.: <u>MW6</u>	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before <u>24.56</u> After	Depth to Water: Before <u>12.67</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade: Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>1.9</u>	x	<u>3</u>	=	<u>5.7</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer  
 Disposable Bailer   
 Middleburg  
 Electric Submersible  
 Extraction Pump  
 Other \_\_\_\_\_

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

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>1401</u>	<u>62.8</u>	<u>6.7</u>	<u>940</u>	—	<u>2.0</u>	<u>ODOR</u>
<u>1404</u>	<u>61.6</u>	<u>7.0</u>	<u>1000</u>	—	<u>4.0</u>	
<u>1407</u>	<u>61.2</u>	<u>7.0</u>	<u>1000</u>	—	<u>6.0</u>	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 6.0

Sampling Time: 1410 Sampling Date: 9-25-95

Sample I.D.: MW6 Laboratory: SEQ

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

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

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>950925-AZ</u>	Station #: <u>9-2384</u>
Sampler: <u>RV</u>	Start Date: <u>9-25-95</u>
Well I.D.: <u>MW7</u>	Well Diameter: (circle one) <u>2</u> 3 4 6
Total Well Depth: Before <u>21.73</u> After	Depth to Water: Before <u>12.05</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade: _____ Other: _____

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>1.5</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>4.5</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer  
 Disposable Bailer   
 Middleburg  
 Electric Submersible  
 Extraction Pump  
 Other \_\_\_\_\_

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

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>1418</u>	<u>62.8</u>	<u>6.9</u>	<u>1400</u>	<u>—</u>	<u>1.5</u>	
<u>1421</u>	<u>62.0</u>	<u>7.2</u>	<u>1400</u>	<u>—</u>	<u>3.0</u>	
<u>1423</u>	<u>62.2</u>	<u>7.1</u>	<u>1400</u>	<u>—</u>	<u>4.5</u>	

Did Well Dewater? N If yes, gals. \_\_\_\_\_ Gallons Actually Evacuated: 4.5

Sampling Time: 1430 Sampling Date: 9-25-95

Sample I.D.: MW7 Laboratory: SEA

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

Duplicate I.D.: \_\_\_\_\_ Cleaning Blank I.D.: \_\_\_\_\_

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>950925-AR</u>	Station #: <u>9-2384</u>
Sampler: <u>RV</u>	Start Date: <u>9-25-95</u>
Well I.D.: <u>MW8</u>	Well Diameter: (circle one) <u>3</u> 4 6
Total Well Depth: Before <u>20.34</u> After	Depth to Water: Before <u>12.92</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade: Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>1.2</u>	x	<u>3</u>	=	<u>3.6</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer  
 Disposable Bailer   
 Middleburg  
 Electric Submersible  
 Extraction Pump  
 Other \_\_\_\_\_

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

TIME	TEMP. (F)	PH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1459	63.2	6.8	1500	—	1.5	
1502	63.4	7.1	1500	—	3.0	
1504	63.2	7.1	1500	—	4.0	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 4.0

Sampling Time: <u>1510</u>	Sampling Date: <u>9-25-95</u>
Sample I.D.: <u>MW8</u>	Laboratory: <u>SEQ</u>
Analyzed for: (Circle) <u>TPH-G</u> <u>BTEX</u> TPH-D OTHER:	
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:	