



**Chevron**

July 29, 1999

Mr. Scott Seery  
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 L, Room 1080  
PO Box 6004  
San Ramon, CA 94583-0904

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

**Re: Chevron Service Station #9-3322**  
**7225 Bancroft Avenue, Oakland, California**

Dear Mr. Seery:

Enclosed is the Second Quarter Groundwater Monitoring Report for 1999 that was prepared by our consultant Blaine Tech Services Inc. for the above noted site. Ground water samples were collected and analyzed for the TPH-g, BTEX and MtBE constituents.

The concentration of the benzene constituent decreased in monitoring wells MW-2, MW-3 and MW-6 from the previous sampling event, while below method detection limits for all constituents in wells MW-4 and MW-5. **Separate phase hydrocarbons was detected in well MW-1 at a thickness of 0.40 feet with 0.03 gallons removed.** Additional sampling will be required to determine if there will be any effect downgradient, although it appears this is not occurring.

The depth to ground water varied from 10.95 feet to 16.41 feet below grade with the direction of flow north northwesterly.

If you have any questions, call me at (925) 842-9136 or Brett Hunter at (925) 842-8695.

Sincerely,

**CHEVRON PRODUCTS COMPANY**

Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

Cc. Mr. Bill Scudder, Chevron

99 AUG - 3 PM 3:24  
ENVIRONMENTAL  
PROTECTION

**BLAINE**  
TECH SERVICES INC.



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

July 23, 1999

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

### **2nd Quarter 1999 Monitoring at 9-3322**

Second Quarter 1999 Groundwater Monitoring at  
Former Chevron Service Station Number 9-3322  
7225 Bancroft Ave.,  
Oakland, CA

**Monitoring Performed on June 7, 1999**

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### **Groundwater Sampling Report 990607-Y-1**

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

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

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

map which is located in the **Professional Engineering Appendix**.

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

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

Please call if you have any questions.

Yours truly,

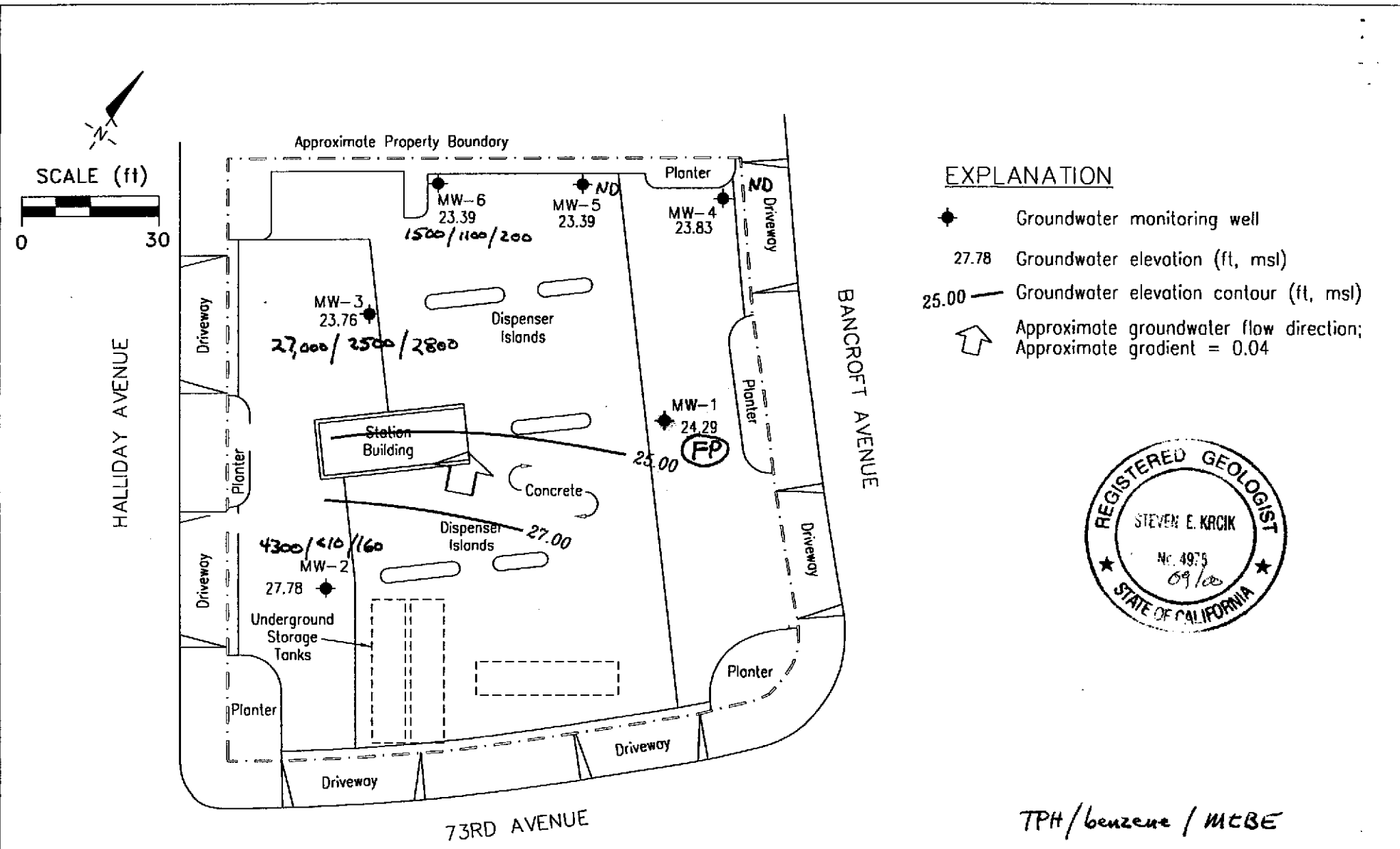


Christine Lillie  
Project Coordinator

CAL/sb

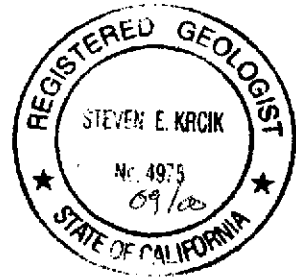
attachments: Professional Engineering Appendix  
Cumulative Table of Well Data and Analytical Results  
Analytical Appendix  
Field Data Sheets

# **Professional Engineering Appendix**



**EXPLANATION**

- ◆ Groundwater monitoring well
- 27.78 Groundwater elevation (ft, msl)
- 25.00 — Groundwater elevation contour (ft, msl)
- ↑ Approximate groundwater flow direction; Approximate gradient = 0.04



*TPH/benzene/MCBE*

Ref. 3322-qm.dwg  
Base map from Gattler-Ryan, Inc.

PREPARED BY  
**RRM**  
engineering contracting firm

**Chevron Station 9-3322**  
7225 Bancroft Avenue  
Oakland, California

**GROUNDWATER ELEVATION CONTOUR MAP,**  
JUNE 7, 1999

**FIGURE:**  
**1**  
**PROJECT:**  
DAC04

# **Table of Well Data and Analytical Results**

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

| DATE        | Well Head Elev. | Ground Water Elev. | Depth To Water | SPH Thickness | SPH Removed | Total SPH Removed | Notes            | TPH-Gasoline | Benzene | Toluene | Ethyl-Benzene | Xylene | MTBE  |
|-------------|-----------------|--------------------|----------------|---------------|-------------|-------------------|------------------|--------------|---------|---------|---------------|--------|-------|
| <b>MW-1</b> |                 |                    |                |               |             |                   |                  |              |         |         |               |        |       |
| 02/08/98    | 40.41           | 26.53              | 13.88          | --            | --          | --                | --               | 130,000      | 9700    | 8200    | 3200          | 15,000 | <250  |
| 06/16/98    | 40.41           | 26.18              | 14.23          | --            | --          | --                | --               | 96,000       | 15,000  | 12,000  | 2600          | 11,000 | 1300  |
| 07/29/98    | 40.41           | 22.59              | 17.82          | --            | --          | --                | --               | 370,000      | 19,000  | 14,000  | 5800          | 15,000 | <2500 |
| 08/13/98    | 40.41           | 22.01              | 18.40          | --            | --          | --                | --               | 120,000      | 19,000  | 16,000  | 2900          | 14,000 | <1000 |
| 11/24/98    | 40.41           | 19.61              | 20.80          | --            | --          | --                | --               | 100,000      | 26,000  | 18,000  | 4000          | 22,000 | 2000  |
| 02/03/99    | 40.41           | 22.96              | 17.45          | --            | --          | --                | --               | 110,000      | 27,000  | 16,000  | 3800          | 22,000 | <2.5  |
| 06/07/99    | 40.41           | 24.29              | 16.44          | 0.40          | 0.03        | 0.03              | --               | --           | --      | --      | --            | --     | --    |
| <b>MW-2</b> |                 |                    |                |               |             |                   |                  |              |         |         |               |        |       |
| 02/08/98    | 38.73           | 31.13              | 7.60           | --            | --          | --                | --               | 24,000       | 130     | 170     | 450           | 1900   | 2300  |
| 06/16/98    | 38.73           | 29.61              | 9.12           | --            | --          | --                | --               | 8900         | 31      | 46      | 310           | 1100   | 260   |
| 07/29/98    | 38.73           | 27.06              | 11.67          | --            | --          | --                | --               | 7600         | 15      | 21      | 150           | 480    | 82    |
| 08/13/98    | 38.73           | 26.32              | 12.41          | --            | --          | --                | --               | 14,000       | 26      | 80      | 500           | 2100   | 32    |
| 11/24/98    | 38.73           | 23.10              | 15.63          | --            | --          | --                | --               | 37,000       | 63      | 220     | 1300          | 7100   | 770   |
| 02/03/99    | 38.73           | 27.16              | 11.57          | --            | --          | --                | --               | 16,000       | 140     | 110     | 850           | 3100   | 900   |
| 06/07/99    | 38.73           | 27.78              | 10.95          | --            | --          | --                | --               | 4300         | <10     | <10     | 120           | 260    | 160   |
| <b>MW-3</b> |                 |                    |                |               |             |                   |                  |              |         |         |               |        |       |
| 02/08/98    | 39.51           | 24.91              | 14.60          | --            | --          | --                | --               | 94,000       | 12,000  | 4400    | 2000          | 10,000 | 8000  |
| 06/16/98    | 39.51           | 25.53              | 13.98          | --            | --          | --                | --               | 38,000       | 5600    | 1400    | 1200          | 4700   | 6300  |
| 06/16/98    | 39.51           | 25.53              | 13.98          | --            | --          | --                | Confirmation run | --           | --      | --      | --            | --     | 4600  |
| 07/29/98    | 39.51           | 22.14              | 17.37          | --            | --          | --                | --               | 58,000       | 4100    | 700     | 1300          | 4200   | 4100  |
| 08/13/98    | 39.51           | 21.29              | 18.22          | --            | --          | --                | --               | 43,000       | 6800    | 1900    | 1600          | 6800   | 2300  |
| 11/24/98    | 39.51           | 19.06              | 20.45          | --            | --          | --                | --               | 40,000       | 5000    | 800     | 1600          | 6800   | 6000  |
| 11/24/98    | 39.51           | 19.06              | 20.45          | --            | --          | --                | Confirmation run | --           | --      | --      | --            | --     | 4400  |
| 02/03/99    | 39.51           | 22.03              | 17.48          | --            | --          | --                | --               | 47,000       | 7100    | 1600    | 1900          | 9000   | 5000  |
| 06/07/99    | 39.51           | 23.76              | 15.75          | --            | --          | --                | --               | 27,000       | 2500    | 540     | 1200          | 3900   | 2800  |

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

| DATE        | Well Head Elev. | Ground Water Elev. | Depth To Water | SPH Thickness | SPH Removed | Total SPH Removed | Notes | TPH-Gasoline | Benzene | Toluene | Ethyl-Benzene | Xylene | MTBE |
|-------------|-----------------|--------------------|----------------|---------------|-------------|-------------------|-------|--------------|---------|---------|---------------|--------|------|
| <b>MW-4</b> |                 |                    |                |               |             |                   |       |              |         |         |               |        |      |
| 02/02/99    | 40.24           | 27.07              | 13.17          | --            | --          | --                | --    | <50          | 0.52    | <0.5    | <0.5          | <0.5   | 6.0  |
| 06/07/99    | 40.24           | 23.83              | 16.41          | --            | --          | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| <b>MW-5</b> |                 |                    |                |               |             |                   |       |              |         |         |               |        |      |
| 02/02/99    | 40.37           | 21.57              | 18.80          | --            | --          | --                | --    | 72           | 2.7     | <0.5    | <0.5          | <0.5   | 11   |
| 06/07/99    | 40.37           | 23.39              | 16.98          | --            | --          | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| <b>MW-6</b> |                 |                    |                |               |             |                   |       |              |         |         |               |        |      |
| 02/02/99    | 39.84           | 21.36              | 18.48          | --            | --          | --                | --    | 14,000       | 5600    | <50     | 150           | 160    | <250 |
| 06/07/99    | 39.84           | 23.39              | 16.45          | --            | --          | --                | --    | 1500         | 1100    | 33      | 25            | 34     | 200  |



## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

| DATE              | Well Head Elev. | Ground Water Elev. | Depth To Water | SPH Thickness | SPH Removed | Total SPH Removed | Notes | TPH-Gasoline | Benzene | Toluene | Ethyl-Benzene | Xylene | MTBE |
|-------------------|-----------------|--------------------|----------------|---------------|-------------|-------------------|-------|--------------|---------|---------|---------------|--------|------|
| <b>TRIP BLANK</b> |                 |                    |                |               |             |                   |       |              |         |         |               |        |      |
| 02/08/98          | --              | --                 | --             | --            | --          | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 06/16/98          | --              | --                 | --             | --            | --          | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 07/29/98          | --              | --                 | --             | --            | --          | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 08/13/98          | --              | --                 | --             | --            | --          | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 11/24/98          | --              | --                 | --             | --            | --          | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 02/02/99          | --              | --                 | --             | --            | --          | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 02/03/99          | --              | --                 | --             | --            | --          | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 06/07/99          | --              | --                 | --             | --            | --          | --                | --    | <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 24, 1998. Earlier field data and analytical results are drawn from the August 13, 1998, Gettler-Ryan, Inc. report. Wells MW-4, MW-5, and MW-6 were surveyed on February 22, 1999 by Virgil Chavez of Vallejo, CA.

### ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

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

MTBE = Methyl-tert-butyl ether

SPH = Separate-Phase Hydrocarbons

# **Analytical Appendix**



# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiget Lane  
 819 Striker Avenue, Suite 8  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

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 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Blaine Tech Services  
 1680 Rogers Avenue  
 San Jose, CA 95112  
 Attention: Christine Lillie

Client Project ID: Chevron #9-3322, Oakland  
 Sample Matrix: Water  
 Analysis Method: EPA 5030/8015 Mod./8020  
 First Sample #: 906-1056

Sampled: Jun 7, 1999  
 Received: Jun 8, 1999  
 Reported: Jun 22, 1999

QC Batch Number: GC061799 GC061799 GC061799 GC061799 GC061899 GC061799  
 802005A 802005A 802005A 802005A 802002A 802005A

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

| Analyte                | Reporting Limit<br>µg/L | Sample I.D.<br>906-1056<br>MW-2 | Sample I.D.<br>906-1057<br>MW-3 | Sample I.D.<br>906-1058<br>MW-4 | Sample I.D.<br>906-1059<br>MW-5 | Sample I.D.<br>906-1060<br>MW-6 | Sample I.D.<br>906-1061<br>TB |
|------------------------|-------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------|
| Purgeable Hydrocarbons | 50                      | 4,300                           | 27,000                          | N.D.                            | N.D.                            | 1,500                           | N.D.                          |
| Benzene                | 0.50                    | N.D.                            | 2,500                           | N.D.                            | N.D.                            | 1,100                           | N.D.                          |
| Toluene                | 0.50                    | N.D.                            | 540                             | N.D.                            | N.D.                            | 33                              | N.D.                          |
| Ethyl Benzene          | 0.50                    | 120                             | 1,200                           | N.D.                            | N.D.                            | 25                              | N.D.                          |
| Total Xylenes          | 0.50                    | 260                             | 3,900                           | N.D.                            | N.D.                            | 34                              | N.D.                          |
| MTBE                   | 2.5                     | 160                             | 2,800                           | N.D.                            | N.D.                            | 200                             | N.D.                          |
| Chromatogram Pattern:  |                         | Gasoline                        | Gasoline                        | --                              | --                              | Gasoline                        | --                            |

### Quality Control Data

|   |         |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|---------|
| Report Limit Multiplication Factor:             | 20      | 100     | 1.0     | 1.0     | 10      | 1.0     |
| Date Analyzed:                                  | 6/17/99 | 6/17/99 | 6/17/99 | 6/17/99 | 6/18/99 | 6/17/99 |
| Instrument Identification:                      | HP-5    | HP-5    | HP-5    | HP-5    | HP-2    | HP-5    |
| Surrogate Recovery, %:<br>(QC Limits = 70-130%) | 83      | 84      | 90      | 90      | 95      | 98      |

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
 Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

*Melissa A. Brewer*

Melissa A. Brewer  
 Project Manager

9061056.BTS <1 >





# Sequoia Analytical

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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Christine Lillie

Client Project ID: Chevron #9-3322, Oakland  
Matrix: Liquid

QC Sample Group: 9061056-061

Reported: Jun 22, 1999

## QUALITY CONTROL DATA REPORT

| Analyte:          | Benzene             | Toluene             | Ethyl Benzene       | Xylenes             |
|-------------------|---------------------|---------------------|---------------------|---------------------|
| QC Batch#:        | GC061799<br>802005A | GC061799<br>802005A | GC061799<br>802005A | GC061799<br>802005A |
| 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 #:         | 9061058             | 9061058             | 9061058             | 9061058             |
| Sample Conc.:     | N.D.                | N.D.                | N.D.                | N.D.                |
| Prepared Date:    | 6/17/99             | 6/17/99             | 6/17/99             | 6/17/99             |
| Analyzed Date:    | 6/17/99             | 6/17/99             | 6/17/99             | 6/17/99             |
| Instrument I.D.#: | HP-5                | HP-5                | HP-5                | HP-5                |
| Conc. Spiked:     | 20 µg/L             | 20 µg/L             | 20 µg/L             | 60 µg/L             |
| Result:           | 19                  | 19                  | 18                  | 57                  |
| MS % Recovery:    | 95                  | 95                  | 90                  | 95                  |
| Dup. Result:      | 19                  | 19                  | 19                  | 57                  |
| MSD % Recov.:     | 95                  | 95                  | 95                  | 95                  |
| RPD:              | 0.0                 | 0.0                 | 5.4                 | 0.0                 |
| RPD Limit:        | 0-20                | 0-20                | 0-20                | 0-20                |

| LCS #:            | 5LCS061799 | 5LCS061799 | 5LCS061799 | 5LCS061799 |
|-------------------|------------|------------|------------|------------|
| Prepared Date:    | 6/17/99    | 6/17/99    | 6/17/99    | 6/17/99    |
| Analyzed Date:    | 6/17/99    | 6/17/99    | 6/17/99    | 6/17/99    |
| Instrument I.D.#: | HP-5       | HP-5       | HP-5       | HP-5       |
| Conc. Spiked:     | 20 µg/L    | 20 µg/L    | 20 µg/L    | 60 µg/L    |
| LCS Result:       | 20         | 19         | 19         | 59         |
| LCS % Recov.:     | 100        | 95         | 95         | 98         |

| MS/MSD LCS Control Limits | 70-130 | 70-130 | 70-130 | 70-130 |
|---------------------------|--------|--------|--------|--------|
|---------------------------|--------|--------|--------|--------|

**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

SEQUOIA ANALYTICAL, #1271

*Melissa A. Brewer*

Melissa A. Brewer  
Project Manager





# Sequoia Analytical

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FAX (707) 792-0342  
FAX (650) 232-9612

Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Christine Lillie

Client Project ID: Chevron #9-3322, Oakland  
Matrix: Liquid

QC Sample Group: 9061056-061

Reported: Jun 22, 1999

## QUALITY CONTROL DATA REPORT

| Analyte:          | Benzene   | Toluene   | Ethyl Benzene | Xylenes   |
|-------------------|-----------|-----------|---------------|-----------|
| QC Batch#:        | GC061899  | GC061899  | GC061899      | GC061899  |
|                   | 802002A   | 802002A   | 802002A       | 802002A   |
| 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 #:         | 9061092   | 9061092   | 9061092       | 9061092   |
| Sample Conc.:     | N.D.      | N.D.      | N.D.          | N.D.      |
| Prepared Date:    | 6/18/99   | 6/18/99   | 6/18/99       | 6/18/99   |
| Analyzed Date:    | 6/18/99   | 6/18/99   | 6/18/99       | 6/18/99   |
| Instrument I.D.#: | HP-2      | HP-2      | HP-2          | HP-2      |
| Conc. Spiked:     | 20 µg/L   | 20 µg/L   | 20 µg/L       | 60 µg/L   |
| Result:           | 19        | 17        | 18            | 59        |
| MS % Recovery:    | 95        | 85        | 90            | 98        |
| Dup. Result:      | 19        | 18        | 18            | 59        |
| MSD % Recov.:     | 95        | 90        | 90            | 98        |
| RPD:              | 0.0       | 5.7       | 0.0           | 0.0       |
| RPD Limit:        | 0-20      | 0-20      | 0-20          | 0-20      |

| LCS #:            | 2LCS061899 | 2LCS061899 | 2LCS061899 | 2LCS061899 |
|-------------------|------------|------------|------------|------------|
| Prepared Date:    | 6/18/99    | 6/18/99    | 6/18/99    | 6/18/99    |
| Analyzed Date:    | 6/18/99    | 6/18/99    | 6/18/99    | 6/18/99    |
| Instrument I.D.#: | HP-2       | HP-2       | HP-2       | HP-2       |
| Conc. Spiked:     | 20 µg/L    | 20 µg/L    | 20 µg/L    | 60 µg/L    |
| LCS Result:       | 20         | 18         | 18         | 61         |
| LCS % Recov.:     | 100        | 90         | 90         | 102        |

| MS/MSD LCS Control Limits | 70-130 | 70-130 | 70-130 | 70-130 |
|---------------------------|--------|--------|--------|--------|
|---------------------------|--------|--------|--------|--------|

**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

SEQUOIA ANALYTICAL, #1271

*Melissa A. Brewer*

Melissa A. Brewer  
Project Manager





# **Field Data Sheets**







## CHEVRON WELL MONITORING DATA SHEET

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Project #: 990607 Y1            | Station #: 9-3322                 |
| Sampler: B TAYLOR               | Date: 6/7                         |
| Well I.D.: MW2                  | Well Diameter: <u>2</u> 3 4 6 8   |
| Total Well Depth: 29.91         | Depth to Water: 10.95             |
| Depth to Free Product:          | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | D.O. Meter (if req'd): YSI HACH   |

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

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

|                       |   |                   |   |                   |       |
|-----------------------|---|-------------------|---|-------------------|-------|
| <u>3</u>              | X | <u>3</u>          | = | <u>9</u>          | Gals. |
| 1 Case Volume (Gals.) |   | Specified Volumes |   | Calculated Volume |       |

| Time | Temp (°F) | pH  | Cond. | Gals. Removed | Observations |
|------|-----------|-----|-------|---------------|--------------|
| 1034 | 62.6      | 7.5 | 693   | 3             |              |
| 1038 | 65.3      | 7.5 | 707   | 6             |              |
| 1041 | 65.4      | 7.5 | 711   | 9             |              |
|      |           |     |       |               |              |
|      |           |     |       |               |              |

Did well dewater? Yes  No  Gallons actually evacuated: 9

Sampling Time: 1044      Sampling Date: 6/7

Sample I.D.: MW2      Laboratory: Sequoia CORE N. Creek Assoc. Labs

Analyzed for: TPH-G BTEX ~~MTBE~~ TPH-D . Other: \_\_\_\_\_

Duplicate I.D.: \_\_\_\_\_ Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

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

## CHEVRON WELL MONITORING DATA SHEET

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Project #: 990607 Y1            | Station #: 9-3322                 |
| Sampler: B TAYLOR               | Date: 6/7                         |
| Well I.D.: MW3                  | Well Diameter: <u>2</u> 3 4 6 8   |
| Total Well Depth: 33.58         | Depth to Water: 15.75             |
| Depth to Free Product:          | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | D.O. Meter (if req'd): YSI HACH   |

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

|  |   |
|--|---|
| Purge Method: <u>Bailer</u><br><input checked="" type="radio"/> Disposable Bailer<br><input type="radio"/> Middleburg<br><input type="radio"/> Electric Submersible<br><input type="radio"/> Extraction Pump<br>Other: _____ | Sampling Method: <u>Bailer</u><br><input checked="" type="radio"/> Disposable Bailer<br><input type="radio"/> Extraction Port<br>Other: _____ |
|--|---|

|                       |   |                   |   |                   |       |
|-----------------------|---|-------------------|---|-------------------|-------|
| 3                     | X | 3                 | = | 9                 | Gals. |
| 1 Case Volume (Gals.) |   | Specified Volumes |   | Calculated Volume |       |

| Time | Temp (°F) | pH  | Cond. | Gals. Removed | Observations |
|------|-----------|-----|-------|---------------|--------------|
| 1056 | 65.3      | 7.6 | 492   | 3             | ODOR         |
| 1090 | 65.7      | 7.5 | 603   | 6             |              |
| 1099 | 65.8      | 7.6 | 607   | 9             |              |
|      |           |     |       |               |              |
|      |           |     |       |               |              |

|   |  |
|---|--|
| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Gallons actually evacuated: 9  |
| Sampling Time: <del>1108</del> 1108   | Sampling Date: 6/7   |
| Sample I.D.: MW3  | Laboratory: <u>Sequoia</u> CORE N. Creek Assoc. Labs   |
| Analyzed for: <u>TPH-G BTEX MTBE</u> TPH-D . Other:                             |  |
| Duplicate I.D.:   | Analyzed for: TPH-G BTEX MTBE TPH-D Other:   |
| D.O. (if req'd):  | Pre-purge: <span style="margin-left: 100px;">mg/L</span> Post-purge: <span style="margin-left: 100px;">mg/L</span> |
| O.R.P. (if req'd):  | Pre-purge: <span style="margin-left: 100px;">mV</span> Post-purge: <span style="margin-left: 100px;">mV</span>     |

## CHEVRON WELL MONITORING DATA SHEET

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Project #: <u>990607 Y1</u>       | Station #: <u>9-3322</u>          |
| Sampler: <u>B TAYLOR</u>          | Date: <u>6/7</u>                  |
| Well I.D.: <u>MW4</u>             | Well Diameter: <u>(2)</u> 3 4 6 8 |
| Total Well Depth: <u>30.73</u>    | Depth to Water: <u>16.41</u>      |
| Depth to Free Product:            | Thickness of Free Product (feet): |
| Referenced to: <u>(PVC)</u> Grade | D.O. Meter (if req'd): YSI HACH   |

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

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

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

|                       |   |                   |   |                   |       |
|-----------------------|---|-------------------|---|-------------------|-------|
| <u>2.3</u>            | x | <u>3</u>          | = | <u>6.9</u>        | Gals. |
| 1 Case Volume (Gals.) |   | Specified Volumes |   | Calculated Volume |       |

| Time       | Temp (°F)   | pH         | Cond.      | Gals. Removed | Observations |
|------------|-------------|------------|------------|---------------|--------------|
| <u>941</u> | <u>65.1</u> | <u>8.1</u> | <u>566</u> | <u>2</u>      |              |
| <u>944</u> | <u>65.4</u> | <u>8.0</u> | <u>572</u> | <u>4</u>      |              |
| <u>947</u> | <u>65.5</u> | <u>7.9</u> | <u>583</u> | <u>7</u>      |              |
|            |             |            |            |               |              |
|            |             |            |            |               |              |

Did well dewater? Yes No Gallons actually evacuated: 7

Sampling Time: 950 Sampling Date: 6/7

Sample I.D.: MW4 Laboratory: Sequoia CORE N. Creek Assoc. Labs

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

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

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

## CHEVRON WELL MONITORING DATA SHEET

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Project #: <u>990607 YI</u>     | Station #: <u>9-3322</u>          |
| Sampler: <u>B TAYLOR</u>        | Date: <u>6/7</u>                  |
| Well I.D.: <u>MWS</u>           | Well Diameter: <u>2</u> 3 4 6 8   |
| Total Well Depth: <u>31.69</u>  | Depth to Water: <u>16.98</u>      |
| Depth to Free Product:          | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | D.O. Meter (if req'd): YSI HACH   |

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

|  |   |
|--|---|
| Purge Method: <u>Bailer</u><br><input checked="" type="radio"/> Disposable Bailer<br><input type="radio"/> Middleburg<br><input type="radio"/> Electric Submersible<br><input type="radio"/> Extraction Pump<br>Other: _____ | Sampling Method: <u>Bailer</u><br><input checked="" type="radio"/> Disposable Bailer<br><input type="radio"/> Extraction Port<br>Other: _____ |
|--|---|

|                       |   |                   |   |                   |       |
|-----------------------|---|-------------------|---|-------------------|-------|
| <u>2.3</u>            | x | <u>3</u>          | = | <u>6.9</u>        | Gals. |
| 1 Case Volume (Gals.) |   | Specified Volumes |   | Calculated Volume |       |

| Time        | Temp (°F)   | pH         | Cond.      | Gals. Removed | Observations |
|-------------|-------------|------------|------------|---------------|--------------|
| <u>1001</u> | <u>65.1</u> | <u>8.0</u> | <u>914</u> | <u>2</u>      |              |
| <u>1004</u> | <u>65.3</u> | <u>7.6</u> | <u>871</u> | <u>9</u>      |              |
| <u>1007</u> | <u>65.7</u> | <u>7.5</u> | <u>872</u> | <u>7</u>      |              |
|             |             |            |            |               |              |
|             |             |            |            |               |              |

|   |  |
|---|--|
| Did well dewater? Yes <input type="radio"/> <input checked="" type="radio"/> No | Gallons actually evacuated: <u>7</u>                                       |
| Sampling Time: <u>1010</u>  | Sampling Date: <u>6/7</u>  |
| Sample I.D.: <u>MWS</u>   | Laboratory: <u>Sequoia</u> CORE N. Creek Assoc. Labs                       |
| Analyzed for: <u>TPH-G BTEX MTBE</u> TPH-D Other:                               |  |
| Duplicate I.D.:   | Analyzed for: TPH-G BTEX MTBE TPH-D Other:                                 |
| D.O. (if req'd):  | Pre-purge: <input type="text"/> mg/L Post-purge: <input type="text"/> mg/L |
| O.R.P. (if req'd):  | Pre-purge: <input type="text"/> mV Post-purge: <input type="text"/> mV     |

## CHEVRON WELL MONITORING DATA SHEET

|                                    |                                   |
|------------------------------------|-----------------------------------|
| Project #: <u>990607</u> <u>VI</u> | Station #: <u>9-3322</u>          |
| Sampler: <u>B TAYLOR</u>           | Date: <u>6/7</u>                  |
| Well I.D.: <u>MW 6</u>             | Well Diameter: <u>2</u> 3 4 6 8   |
| Total Well Depth: <u>32.12</u>     | Depth to Water: <u>16.45</u>      |
| Depth to Free Product:             | Thickness of Free Product (feet): |
| Referenced to: <u>(PVC)</u> Grade  | D.O. Meter (if req'd): YSI HACH   |

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

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

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

|                       |   |                   |   |                   |       |
|-----------------------|---|-------------------|---|-------------------|-------|
| <u>2.5</u>            | x | <u>3</u>          | = | <u>7.5</u>        | Gals. |
| 1 Case Volume (Gals.) |   | Specified Volumes |   | Calculated Volume |       |

| Time        | Temp (°F)   | pH         | Cond.      | Gals. Removed | Observations |
|-------------|-------------|------------|------------|---------------|--------------|
| <u>1017</u> | <u>62.7</u> | <u>7.9</u> | <u>906</u> | <u>3</u>      |              |
| <u>1020</u> | <u>63.5</u> | <u>7.8</u> | <u>800</u> | <u>6</u>      |              |
| <u>1023</u> | <u>63.6</u> | <u>7.8</u> | <u>794</u> | <u>8</u>      |              |
|             |             |            |            |               |              |
|             |             |            |            |               |              |

Did well dewater? Yes  No  Gallons actually evacuated: 8

Sampling Time: 1025 Sampling Date: 6/7

Sample I.D.: MW 6 Laboratory: (Sequoia) CORE N. Creek Assoc. Labs

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: \_\_\_\_\_

Duplicate I.D.: \_\_\_\_\_ Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

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