

ENVIRONMENTAL  
PROTECTION

97 FEB 28 AM 10:34



Chevron

February 25, 1997

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 Boilinger Canyon Road  
Building L  
San Ramon, CA 94583  
P.O. Box 6004  
San Ramon, CA 94583-0904

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

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

Dear Mr. Seery:

I am enclosing copies of the Third and Fourth Quarter Groundwater Monitoring reports that was prepared by Blaine Tech Services Inc., for the above noted site. As noted in the report, the groundwater samples were analyzed for TPH-g, BTEX and MtBE constituents.

Monitoring wells MW-2 and MW-4 showed a decline in the concentration of the benzene constituent in both quarters, with the highest reading in MW-4 at 4.0 ppb. Well MW-3 was below method detection limits for BTEX constituents in the third quarter, but was not sampled in the fourth quarter as it is on a semi-annual sampling program. Well MW-1 continues to show the presence of dissolved hydrocarbons and the concentrations are similar as to previous sampling events.

Depth to ground water varied from 5.18 feet to 6.92 feet below grade with a direction of flow to the southwest in the third quarter. In the fourth quarter the ground water depth varied from 3.58 feet to 6.08 feet below grade with a direction of flow to the southwest.

Chevron will continue to monitor the site for the next year as outlined in our letter of June 26, 1996. It appears that natural attenuation is occurring and we would expect that future sampling events will support this. If you have any questions call me at (510) 842-9136.

Sincerely,  
CHEVRON PRODUCTS COMPANY

*Philip R. Briggs*  
Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

February 25, 1997  
Mr. Scott Seery  
Former Chevron Service Station #9-4939  
3369 Castro Valley Blvd., Castro Valley, California  
Page 2

cc. Ms. Bette Owen, Chevron Products Co.

Mr. Kevin Graves  
RWQCB-San Francisco Bay Area  
2101 Webster Street, Suite 500  
Oakland, CA 94612

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

November 8, 1996

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

### 3rd Quarter 1996 Monitoring at 9-4930

Third Quarter 1996 Groundwater Monitoring at  
Chevron Service Station Number 9-4930  
3369 Castro Valley Blvd.  
Castro Valley, CA

Monitoring Performed on October 3, 1996

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#### Groundwater Sampling Report 961003-L-3

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. Purge water is, likewise, collected and transported to McKittrick Waste Treatment Site for disposal.

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

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

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

Please call if you have any questions.

Yours truly,

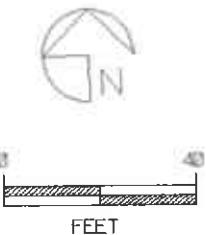
A handwritten signature in black ink, appearing to read "James Keller".

James Keller  
Vice President

JPK/cg

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

# **Professional Engineering Appendix**



### EXPLANATION

MW-1

MONITORING WELL LOCATION  
AND WELL NUMBER

166.61

GROUND-WATER ELEVATION IN FEET  
ABOVE MEAN SEA LEVEL

— 166.0

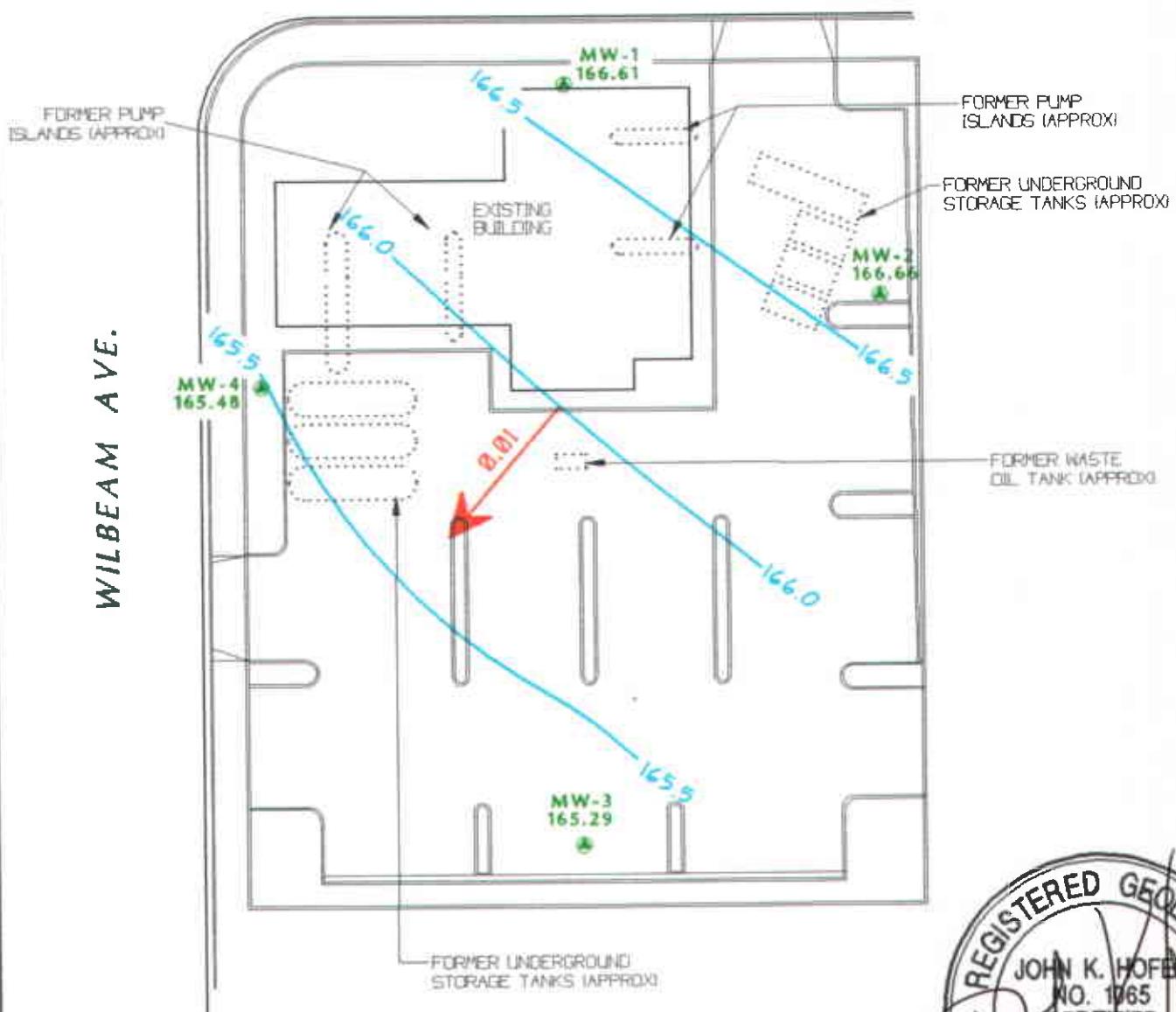
GROUND-WATER ELEVATION CONTOUR  
IN FEET ABOVE MEAN SEA LEVEL

0.01



APPROXIMATE DIRECTION OF GROUND-WATER  
FLOW, GRADIENT INDICATED IN FEET / FEET

## CASTRO VALLEY BLVD.



TITLE : GROUND-WATER ELEVATION CONTOUR MAP -  
OCTOBER 3, 1996

LOCATION : CHEVRON SERVICE STATION No. 9-4930  
3369 CASTRO VALLEY BLVD., CASTRO VALLEY, CALIFORNIA

SOURCE : RON ARCHER CIVIL ENGR & CAMBRIA ENVIRONMENTAL TECHNOLOGY

GEOCONSULTANTS, INC

SAN JOSE, CALIFORNIA

Project No. Q758-09



DRAWING NO.: CHEVRON-CHB301-BASE

# **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	Ground	Depth	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	1,2-DCE	TCE	DCFm	PCE	MTBE
	Head Elev.	Water Elev.	To Water											
<b>MW-1</b>														
10/29/93	172.90	166.15	6.75	--	1000	11	17	32	110	--	--	--	--	--
02/25/94	172.90	166.80	6.10	--	250	6.0	1.0	5.0	3.0	--	--	--	--	--
04/04/94	172.90	166.14	6.76	--	--	--	--	--	--	--	--	--	--	--
04/29/94	172.90	166.35	6.55	--	--	--	--	--	--	--	--	--	--	--
06/13/94	172.90	166.12	6.78	--	670	35	3.5	43	3.9	0.8	16	14	47	--
06/30/94	172.90	166.06	6.84	--	--	--	--	--	--	--	--	--	--	--
07/28/94	172.90	166.03	6.87	--	--	--	--	--	--	--	--	--	--	--
08/31/94	172.90	166.00	6.90	--	560	43	9.5	25	5.0	1.3	19	13	65	--
11/11/94	172.90	167.00	5.90	--	460	53	4.0	50	3.4	--	--	--	--	--
02/01/95	172.90	166.88	6.02	--	240	25	0.60	4.0	<0.5	--	--	--	--	--
05/18/95	172.90	166.82	6.08	--	580	42	1.0	53	2.6	--	--	--	--	--
08/22/95	172.90	166.52	6.38	--	840	73	1.2	110	1.6	--	--	--	--	--
11/01/95	172.90	166.40	6.50	--	350	36	<0.5	30	<0.5	--	--	--	--	15
01/26/96	172.90	166.85	6.05	--	210	23	<0.5	12	<0.5	--	--	--	--	4.7
05/08/96	172.90	166.50	6.40	--	310	42	2.3	56	1.1	--	--	--	--	52
10/03/96	173.53	166.61	6.92	--	240	31	<0.5	1.7	<0.5	--	--	--	--	18
<b>MW-2</b>														
10/29/93	173.91	166.05	7.86	--	5600	140	3.2	17	330	--	--	--	--	--
02/25/94	173.91	166.96	6.95	--	820	41	<0.5	17	5.0	--	--	--	--	--
04/04/94	173.91	166.18	7.73	--	--	--	--	--	--	--	--	--	--	--
04/29/94	173.91	166.23	7.68	--	--	--	--	--	--	--	--	--	--	--
06/13/94	173.91	166.20	7.71	--	1100	160	0.8	64	2.0	<0.5	0.9	<0.5	2.0	--
06/30/94	173.91	165.87	8.04	--	--	--	--	--	--	--	--	--	--	--
07/28/94	173.91	165.99	7.92	--	--	--	--	--	--	--	--	--	--	--
08/31/94	173.91	165.98	7.93	--	190	7.1	4.1	3.1	1.2	<0.5	1.1	<0.5	4.5	--
11/11/94	173.91	167.08	6.83	--	440	120	<1.0	18	<1.0	--	--	--	--	--
02/01/95	173.91	167.77	6.14	--	240	81	<1.0	<1.0	<1.0	--	--	--	--	--
05/18/95	173.91	166.91	7.00	--	330	74	<0.5	26	1.3	--	--	--	--	--
08/22/95	173.91	166.58	7.33	--	390	84	<1.0	2.1	<1.0	--	--	--	--	--
11/01/95	173.91	166.54	7.37	--	190	46	<0.5	1.6	<0.5	--	--	--	--	<2.5
01/26/96	173.91	168.13	5.78	--	<50	13	<0.5	<0.5	<0.5	--	--	--	--	<2.5
05/08/96	173.91	166.76	7.15	--	<50	4.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
10/03/96	172.67	166.66	6.01	--	63	4.3	<0.5	<0.5	<0.5	--	--	--	--	<2.5

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	1,2-DCE	TCE	DCFm	PCE	MTBE
	Head Elev.	Water Elev.	To Water			<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
<b>MW-3</b>														
10/29/93	172.60	164.96	7.64	--		110	<0.5	<0.5	<0.5	<0.5	--	--	--	--
02/25/94	172.60	166.22	6.38	--		<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
04/04/94	172.60	165.21	7.39	--		--	--	--	--	--	--	--	--	--
04/29/94	172.60	165.62	6.98	--		--	--	--	--	--	--	--	--	--
06/13/94	172.60	165.15	7.45	--		<50	<0.5	<0.5	<0.5	<0.5	<0.5	2.0	<0.5	220
06/30/94	172.60	165.05	7.55	--		--	--	--	--	--	--	--	--	--
07/28/94	172.60	164.93	7.67	--		--	--	--	--	--	--	--	--	--
08/31/94	172.60	164.81	7.79	--		<50	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	320
11/11/94	172.60	165.73	6.87	Sampled biannually		--	--	--	--	--	--	--	--	--
02/01/95	172.60	167.03	5.57	--		89	<0.5	<0.5	<0.5	<0.5	--	--	--	--
05/18/95	172.60	165.79	6.81	--		--	--	--	--	--	--	--	--	--
08/22/95	172.60	165.35	7.25	--		190	<0.5	<0.5	<0.5	<0.5	--	--	--	--
11/01/95	172.60	165.70	6.90	--		--	--	--	--	--	--	--	--	--
01/26/96	172.60	167.35	5.25	--		160	<2.5	<0.5	<0.5	<0.5	--	--	--	--
05/08/96	172.60	165.55	7.05	--		--	--	--	--	--	--	--	--	--
10/03/96	170.47	165.29	5.18	--		150	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
<b>MW-4</b>														
10/29/93	170.68	165.18	5.50	--		640	6.7	3.3	0.6	6.7	--	--	--	--
02/25/94	170.68	165.86	4.82	--		450	20	0.8	12	6.0	--	--	--	--
04/04/94	170.68	165.23	5.45	--		--	--	--	--	--	--	--	--	--
04/29/94	170.68	165.45	5.23	--		--	--	--	--	--	--	--	--	--
06/13/94	170.68	165.14	5.54	--		1700	130	1.4	100	11	22	59	13	180
06/30/94	170.68	165.13	5.55	--		--	--	--	--	--	--	--	--	--
07/28/94	170.68	165.06	5.62	--		--	--	--	--	--	--	--	--	--
08/31/94	170.68	165.00	5.68	--		800	17	3.5	9.3	4.4	25	53	22	510
11/11/94	170.68	165.46	5.22	--		500	26	<0.5	30	4.3	--	--	--	--
02/01/95	170.68	165.12	5.56	--		1600	180	<2.0	31	42	--	--	--	--
05/18/95	170.68	165.70	4.98	--		1300	130	<2.0	140	5.5	--	--	--	--
08/22/95	170.68	165.35	5.33	--		970	50	<1.2	75	<1.2	--	--	--	--
11/01/95	170.68	165.28	5.40	--		320	3.3	<0.5	4.1	<0.5	--	--	--	27
01/26/96	170.68	166.40	4.28	--		1400	65	<2.5	98	71	--	--	--	100
05/08/96	170.68	165.33	5.35	--		610	28	1.2	58	4.4	--	--	--	70
10/03/96	171.70	165.48	6.22	--		210	4.2	<0.5	<0.5	<0.5	--	--	--	12

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	1,2-DCE	TCE	DCFM	PCE	MTBE
	Head Elev.	Water Elev.	To Water											
<b>TRIP BLANK</b>														
02/25/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
06/13/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
08/31/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
11/11/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
02/01/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
05/18/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
08/22/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
11/01/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
01/26/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
05/08/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5
10/03/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<2.5

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994.

Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.

New survey information drawn from the October 11, 1996 Ron Archer Civil Engineer Inc. report.

### ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

1,2-DCE = 1,2-Dichloroethene

TCE = Trichloroethene

DCFM = Dichlorodifluoromethane

PCE = Tetrachloroethene

MTBE = Methyl t-Butyl Ether

# **Analytical Appendix**



Sequoia  
Analytical

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673  
819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Chevron 9-4930/961003-L3  
Sample Descript: MW-1  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9610328-01

Sampled: 10/03/96  
Received: 10/04/96

Analyzed: 10/07/96  
Reported: 10/16/96

QC Batch Number: GC100796BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	.....	240
Methyl t-Butyl Ether	2.5	18
Benzene	0.50	31
Toluene	0.50	N.D.
Ethyl Benzene	0.50	1.7
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:	.....	Gas
Unidentified HC	.....	< C8
Surrogates		
Trifluorotoluene	Control Limits % 70 130	% Recovery 195 Q

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      Redwood City, CA 94063      (415) 364-9600      FAX (415) 364-9233  
404 N. Wiget Lane      Walnut Creek, CA 94598      (510) 988-9600      FAX (510) 988-9673  
819 Striker Avenue, Suite 8      Sacramento, CA 95834      (916) 921-9600      FAX (916) 921-0100

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

Client Proj. ID: Chevron 9-4930/961003-L3  
Sample Descript: MW-2  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9610328-02

Sampled: 10/03/96  
Received: 10/04/96  
  
Analyzed: 10/08/96  
Reported: 10/16/96

QC Batch Number: GC100896BTEX03A  
Instrument ID: GCHP03

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	.....	50
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	4.3
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Discrete Peaks	.....	....
Surrogates	Control Limits %	
Trifluorotoluene	70	130
	% Recovery	
		123

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 Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673  
819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

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

Client Proj. ID: Chevron 9-4930/961003-L3  
Sample Descript: MW-3  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9610328-03

Sampled: 10/03/96  
Received: 10/04/96  
  
Analyzed: 10/07/96  
Reported: 10/16/96

QC Batch Number: GC100796BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	150
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Discrete Peaks	.....	....
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	101

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 Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
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819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

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

Client Proj. ID: Chevron 9-4930/961003-L3  
Sample Descript: MW-4  
Matrix: LIQUID  
Analysis Method: EPA 8260  
Lab Number: 9610328-04

Sampled: 10/03/96  
Received: 10/04/96  
Analyzed: 10/14/96  
Reported: 10/16/96

QC Batch Number: MS1011968260F3A  
Instrument ID: F3

### Volatile Organics (EPA 8260)

Analyte	Detection Limit ug/L	Sample Results ug/L
Benzene	..... 2.0 .....	4.2





# Sequoia Analytical

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673  
819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Chevron 9-4930/961003-L3  
Sample Descript: MW-4  
Matrix: LIQUID  
Analysis Method: EPA 8260  
Lab Number: 9610328-04

Sampled: 10/03/96  
Received: 10/04/96  
Analyzed: 10/14/96  
Reported: 10/16/96

QC Batch Number: MS1011968260F3A  
Instrument ID: F3

Analyte	Detection Limit ug/L	Sample Results ug/L
<b>Surrogates</b>		
1,2-Dichloroethane-d4	76	114
Toluene-d8	88	110
4-Bromofluorobenzene	86	115

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager

Page:

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Sequoia  
Analytical

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
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Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
  
Attention: Jim Keller

Client Proj. ID: Chevron 9-4930/961003-L3  
Sample Descript: MW-4  
Matrix: LIQUID  
Analysis Method: EPA 8260  
Lab Number: 9610328-04

Sampled: 10/03/96  
Received: 10/04/96  
  
Analyzed: 10/14/96  
Reported: 10/16/96

QC Batch Number: MS1011968260F3A  
Instrument ID: F3

### Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	12
Surrogates 1,2-Dichloroethane-d4	Control Limits % 76	% Recovery 114 99

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner  
Project Manager

Page:

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**Sequoia  
Analytical**

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673  
819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

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

Client Proj. ID: Chevron 9-4930/961003-L3  
Sample Descript: MW-4  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9610328-04

Sampled: 10/03/96  
Received: 10/04/96  
  
Analyzed: 10/07/96  
Reported: 10/16/96

QC Batch Number: GC100796BTEX02A  
Instrument ID: GCHP2

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	.....	210
Methyl t-Butyl Ether	2.5	-
Benzene	0.50	-
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Discrete Peaks	.....	....
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	109

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager

Page:

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Sequoia  
Analytical

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
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819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Chevron 9-4930/961003-L3  
Sample Descript: TB  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9610328-05

Sampled: 10/03/96  
Received: 10/04/96  
Analyzed: 10/07/96  
Reported: 10/16/96

QC Batch Number: GC100796BTEX02A  
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	96

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner  
Project Manager

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**Sequoia  
Analytical**

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
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819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

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

Client Project ID: Chevron 9-4930 / 961003-L3  
Matrix: Liquid

Work Order #: 9610328 -01, 05

Reported: Oct 17, 1996

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC100796BTEX02A	GC100796BTEX02A	GC100796BTEX02A	GC100796BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	R. Burton	R. Burton	R. Burton	R. Burton
MS/MSD #:	9609G8208	9609G8208	9609G8208	9609G8208
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/7/96	10/7/96	10/7/96	10/7/96
Analyzed Date:	10/7/96	10/7/96	10/7/96	10/7/96
Instrument I.D. #:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	9.7	9.4	26
MS % Recovery:	110	97	94	87
Dup. Result:	10	8.8	8.4	23
MSD % Recov.:	100	88	84	77
RPD:	9.5	9.7	11	12
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK100796	BLK100796	BLK100796	BLK100796
Prepared Date:	10/7/96	10/7/96	10/7/96	10/7/96
Analyzed Date:	10/7/96	10/7/96	10/7/96	10/7/96
Instrument I.D. #:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.7	7.9	7.3	22
LCS % Recov.:	87	79	73	73

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

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager

Please Note:

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

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

9610328.BLA <1>



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

Client Project ID: Chevron 9-4930 / 961003-L3  
Matrix: Liquid

Work Order #: 9610328-02-04

Reported: Oct 17, 1996

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC100896BTEX03A	GC100896BTEX03A	GC100896BTEX03A	GC100896BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	G. Fish	G. Fish	G. Fish	G. Fish
MS/MSD #:	9609H4603	9609H4603	9609H4603	9609H4603
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/8/96	10/8/96	10/8/96	10/8/96
Analyzed Date:	10/8/96	10/8/96	10/8/96	10/8/96
Instrument I.D. #:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	8.9	8.4	26
MS % Recovery:	120	89	84	87
Dup. Result:	11	8.9	8.4	26
MSD % Recov.:	110	89	84	87
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK100896	BLK100896	BLK100896	BLK100896
Prepared Date:	10/8/96	10/8/96	10/8/96	10/8/96
Analyzed Date:	10/8/96	10/8/96	10/8/96	10/8/96
Instrument I.D. #:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	9.0	8.6	26
LCS % Recov.:	110	90	86	87

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

SEQUOIA ANALYTICAL

Peggy Peeler  
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.



Sequoia  
Analytical

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819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

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

Client Project ID: Chevron 9-4930 / 961003-L3  
Matrix: Liquid

Work Order #: 9610328-04

Reported: Oct 17, 1996

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	MTBE
QC Batch#:	MS1011968260F3	MS1011968260F3
Analy. Method:	EPA 8260	EPA 8260
Prep. Method:	N/A	N/A

Analyst:	M. Williams	M. Williams
MS/MSD #:	961067101	961067101
Sample Conc.:	N.D.	N.D.
Prepared Date:	-	-
Analyzed Date:	10/11/96	10/11/96
Instrument I.D. #:	F3	F3
Conc. Spiked:	50 µg/L	50 µg/L
Result:	45	47
MS % Recovery:	90	94
Dup. Result:	46	47
MSD % Recov.:	92	94
RPD:	2.2	0.0
RPD Limit:	0-25	0-25

LCS #:	VDB101496	VDB101496
Prepared Date:	10/14/96	10/14/96
Analyzed Date:	10/14/96	10/14/96
Instrument I.D. #:	MS-F3	MS-F3
Conc. Spiked:	50 µg/L	50 µg/L
LCS Result:	46	50
LCS % Recov.:	92	100

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

SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager

### Please Note:

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

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

9610328.BLA <3>

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

Chevron Facility Number 9-4930  
Facility Address 3369 Castro Valley Blvd., Castro Valley  
Consultant Project Number 961003-13  
Consultant Name Blaine Tech Services, Inc.  
Address 985 Timothy Dr., San Jose, CA 95133  
Project Contact (Name) Jim Keller  
(Phone) 408 995-5535 (Fax Number) 408 293-8773

Chevron Contact (Name) Phil Briggs  
(Phone) (510) 842-9136

Laboratory Name Sequoia

Laboratory Release Number 2106951

Sample Collected by (Name) LAD GILCHRIST  
Collection Date 10-3-96

Signature *Zed Aitchison*

DO NOT BILL  
FOR TB-LB

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil    A = Air W = Water    C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed						Remarks
								STEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Purgeable Halocarbons (8520)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICP or AA)
MW-1	1 A-C	3 W	1503	HCL YES	X									
MW-2	2	3 W	1503			X								X
MW-3	3	3 W	1447			X								X
MW-4	4	3 W	1505			X								X
TB	5 A-B	2 W		✓		✓								X

Unqualified By (Signature)

*Zed Aitchison*

Organization

BTS

Date/Time

9/08  
10/4/96

Received By (Signature)

*John Wright*

Organization

SEQ

Date/Time

9/08  
10/4/96

Turn Around Time (Circle Choice)

24 Hrs.

48 Hrs.

5 Days

10 Days

As Contracted

Qualified By (Signature)

*John Wright*

Organization

SEQ

Date/Time

10/05  
10/4/96

Received By (Signature)

*John Wright*

Organization

SEQ

Date/Time

10/08  
10/4/96

Unashed By (Signature)

*John Wright*

Organization

SEQ

Date/Time

10/05  
10/4/96

Received For Laboratory By (Signature)

*John Wright*

Date/Time

10/08  
10/4/96

# **Field Data Sheets**

## WELL GAUGING DATA

Project # 961003-L3 Date 10-3-96 Client #9-4930

site 3369 CASTRO VALLEY BLVD, CASTRO VALLEY, CA

## CHEVRON WELL MONITORING DATA SHEET

Project #:	961003-C3	Station #:	9-4930
Sampler:	CAD	Start Date:	10-3-96
Well I.D.:	MW-1	Well Diameter: (circle one)	<input checked="" type="radio"/> 3    4    6
Total Well Depth:		Depth to Water:	
Before	18.29	After	6.92
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

1.6	x	3	48.
1 Case Volume	Specified Volumes	=	gallons

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

Sampling: Bailer  
 Disposable Baile~~r~~  
 Extraction Port  
 Other \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1515	68.4	7.6	830	—	2,	
1517	68.0	7.5	820.	—	4,	
1520	68.2	7.5	810.	—	5,	

Did Well Dewater?  If yes, gals.

Gallons Actually Evacuated: 5

Sampling Time: 1523 Sampling Date: 10-3-96

Sample I.D.: MW-1 Laboratory: SEQUOIA

Analyzed for: TPH-G  BTEX TPH-D OTHER:

MTBE

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

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

# CHEVRON WELL MONITORING DATA SHEET

Project #:	961003-L3	Station #:	9-4930				
Sampler:	LAD	Date:	10-3-96				
Well I.D.:	MW-2	Well Diameter:	(2)	3	4	6	8
Total Well Depth:	17.30	Depth to Water:	6.01				
Depth to Free Product:		Thickness of Free Product (feet):					
Referenced to:	PVC	Grade	D.O. Meter (if req'd):	YSI	HACH		

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

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

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

1.6	x	3	=	4.8	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1457	65.8	7.9	950	2.	
1459	65.2	8.0	990.	4.	
1500	65.0	7.9	1000.	5.	

Did well dewater? Yes  Gallons actually evacuated: 5

Sampling Time: 1503 Sampling Date: 10-3-96

Sample I.D.: MW-2 Laboratory: Sequoia GTEL

Analyzed for: TPH-G TPH-E MIBP 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 #:	961003-LB	Station #:	9-4930
Sampler:	LAD	Date:	9/10/96
Well I.D.:	MW-3	Well Diameter:	② 3 4 6 8
Total Well Depth:	17.42	Depth to Water:	5.18
Depth to Free Product:		Thickness of Free Product (feet):	
Referenced to:	PVC	Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.15	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

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

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

$$\frac{1.6}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{4.8}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1440	65.6	8.0	870	2.	
1442	64.2	7.6	850	4.	
1443	64.4	7.5	810	5.	

Did well dewater? Yes  No Gallons actually evacuated: 5

Sampling Time: 1447 Sampling Date: 10/3/96

Sample I.D.: MW-3 Laboratory: Sequoia  GTEL

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 #:	961003-L3	Station #:	9-4930
Sampler:	LAD	Start Date:	10-3-96
Well I.D.:	MW-4	Well Diameter: (circle one)	2 3 4 6
Total Well Depth:		Depth to Water:	
Before	17.90	After	6.22
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

1.7	x	3	5.1
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:
1534	67.2	7.6	860.	—	2.	
1536	65.4	7.5	800.	—	4.	
1539	65.0	7.4	780.	—	6.	

Did Well Dewater?  If yes, gals.

Gallons Actually Evacuated: 6.

Sampling Time: 1545 Sampling Date: 10-3-96

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

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

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

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