

June 20, 1996

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

Second Quarter 1996 Groundwater Monitoring at  
2001 Versailles Avenue  
Alameda, CA

Monitoring Performed on May 21, 1996

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## Groundwater Sampling Report 960521-V-1

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

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

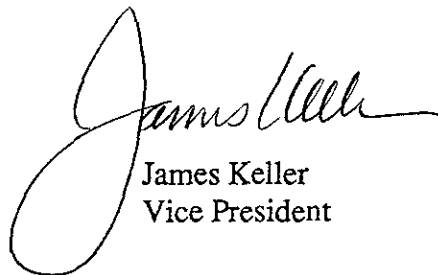
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater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

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

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

Please call if you have any questions.

Yours truly,



James Keller  
Vice President

JPK/lp

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

# **Professional Engineering Appendix**

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

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TPH-Diesel	TDS(ppm)	MTBE	TOG
<b>MW-1</b>													
06/01/94	--	--	--	--	600	43	ND	8.9	3.5	340*	740	--	--
08/31/95	13.60	6.57	7.03	--	78	<0.5	<0.5	<0.5	<0.5	1200**	--	--	--
10/27/95	13.60	6.21	7.39	--	<50	<0.5	<0.5	<0.5	<0.5	1100**	--	<2.5	--
01/26/96	13.60	7.48	6.12	--	<50	5.6	<0.5	<0.5	<0.5	920**	--	<2.5	--
02/23/96	13.60	10.30	3.30	--	--	--	--	--	--	--	--	--	<5000
05/21/96	13.60	8.08	5.52	--	<50	<0.5	<0.5	<0.5	<0.5	580	--	<2.5	--
<b>MW-2</b>													
06/01/94	--	--	--	--	ND	ND	ND	ND	ND	270*	--	--	--
08/31/95	12.22	6.20	6.02	--	<50	<0.5	<0.5	<0.5	<0.5	700**	--	--	--
10/27/95	12.22	5.75	6.47	--	<50	<0.5	<0.5	<0.5	<0.5	710**	--	<2.5	--
01/26/96	--	--	--	Inaccessible	--	--	--	--	--	--	--	--	--
02/23/96	--	--	--	Inaccessible	--	--	--	--	--	--	--	--	--
05/21/96	12.22	8.97	3.25	--	<50	<0.5	<0.5	<0.5	<0.5	580**	--	<2.5	<5000
<b>MW-3</b>													
06/01/94	--	--	--	--	360	0.70	ND	ND	0.50	190*	780	--	--
08/31/95	14.41	6.32	8.09	--	56	<0.5	<0.5	<0.5	<0.5	860**	--	--	--
10/27/95	14.41	5.58	8.83	--	<50	<0.5	<0.5	<0.5	<0.5	870**	--	<2.5	--
01/26/96	14.41	8.68	5.73	--	<50	<0.5	<0.5	<0.5	<0.5	530**	--	<2.5	--
02/23/96	14.41	9.47	4.94	--	--	--	--	--	--	--	--	--	<5000
05/21/96	14.41	7.43	6.98	--	<50	<0.5	<0.5	<0.5	<0.5	1000**	--	<2.5	--
<b>MW-4</b>													
05/31/94	--	--	--	--	170	ND	ND	ND	ND	160*	--	--	--
08/31/95	13.70	5.48	8.22	--	<50	<0.5	<0.5	<0.5	<0.5	940**	--	--	--
10/27/95	13.70	5.05	8.65	--	<50	<0.5	<0.5	<0.5	<0.5	570**	--	<2.5	--
01/26/96	13.70	8.35	5.35	--	<50	<0.5	<0.5	<0.5	<0.5	730**	--	<2.5	--
02/23/96	13.70	9.36	4.34	--	--	--	--	--	--	--	--	--	<5000
05/21/96	13.70	6.92	6.78	--	<50	<0.5	<0.5	<0.5	<0.5	500**	--	<2.5	--

\* Unknown hydrocarbon found in diesel range qualified as diesel.

\*\* Chromatogram pattern indicates an unidentified hydrocarbon.

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TPH-Diesel	TDS(ppm)	MTBE	TOG
<b>MW-5</b>													
05/31/94	--	--	--	--	140	ND	ND	1.2	ND	620*	--	--	--
08/31/95	12.63	5.37	7.26	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--	--
10/27/95	12.63	4.85	7.78	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	<2.5	--
01/26/96	12.63	8.30	4.33	--	<50	<0.5	<0.5	<0.5	<0.5	1000**	--	<2.5	--
02/23/96	12.63	9.33	3.30	--	--	--	--	--	--	--	--	--	<5000
05/21/96	12.63	6.83	5.80	--	<50	<0.5	<0.5	<0.5	<0.5	160**	--	<2.5	--
<b>MW-6</b>													
05/31/94	--	--	--	--	ND	ND	ND	ND	ND	ND	550	--	550
08/31/95	13.06	4.38	8.68	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--	--
10/27/95	13.06	3.94	9.12	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	<2.5	--
01/26/96	13.06	7.16	5.90	--	<50	<0.5	<0.5	<0.5	<0.5	78**	--	<2.5	--
02/23/96	13.06	8.44	4.62	--	--	--	--	--	--	--	--	--	<5000
05/21/96	13.06	5.73	7.33	--	<50	<0.5	<0.5	<0.5	<0.5	53**	--	<2.5	--
<b>TAP HOSE</b>													
06/01/94	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--	--
<b>WELL</b>													
06/02/94	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--	--

\* Unknown hydrocarbon found in diesel range qualified as diesel.

\*\* Chromatogram pattern indicates an unidentified hydrocarbon.

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TPH-Diesel	TDS(ppm)	MTBE	TOG
<b>TRIP BLANK</b>													
08/31/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
10/27/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
01/26/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5	--
05/21/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5	--

\*Chromatogram pattern indicates an unidentified hydrocarbon.

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on August 31, 1995. Earlier field data and analytical results are drawn from Chromalab, Inc. and GeoAnalytical Laboratories, Inc.

### ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

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

TDS = Total Dissolved Solids

MTBE = Methyl t-Butyl Ether

TOG = Total Oil and Grease

# **Analytical Appendix**





Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Client Proj. ID: Chevron Former Bulk 960521-V1

Lab Proj. ID: 9605E92

Sampled: 05/21/96

Received: 05/22/96

Analyzed: see below

Attention: Jim Keller

Reported: 06/10/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9605E92-02 Sample Desc : LIQUID,MW-2				
TRPH (SM 5520 B&F Mod)	mg/L	06/04/96	5.0	N.D.

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 Former Bulk 960521-V1  
Sample Descript: MW-1  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9605E92-01

Sampled: 05/21/96  
Received: 05/22/96  
Extracted: 05/24/96  
Analyzed: 05/26/96  
Reported: 06/10/96

Attention: Jim Keller

QC Batch Number: GC0524960HBPEXB  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	580 W-Diesel
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	97

Results quantitated against a diesel standard.  
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 Former Bulk 960521-V1  
Sample Descript: MW-1  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9605E92-01

Sampled: 05/21/96  
Received: 05/22/96  
Analyzed: 05/29/96  
Reported: 06/10/96

Attention: Jim Keller

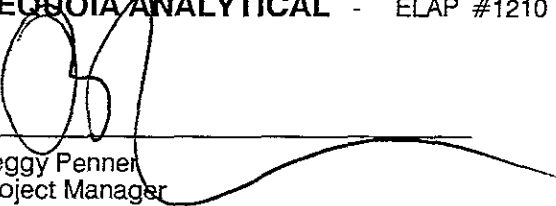
QC Batch Number: GC052996BTEX02A  
Instrument ID: GCHP2

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	104

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 Former Bulk 960521-V1 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9605E92-02	Sampled: 05/21/96 Received: 05/22/96 Extracted: 05/24/96 Analyzed: 05/25/96 Reported: 06/10/96
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QC Batch Number: GC0524960HBPEXB  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	580 Unidentified HC
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 117

Results quantitated against a diesel standard.  
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 Former Bulk 960521-V1  
Sample Descript: MW-2  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9605E92-02

Sampled: 05/21/96  
Received: 05/22/96  
Analyzed: 05/28/96  
Reported: 06/10/96

Attention: Jim Keller

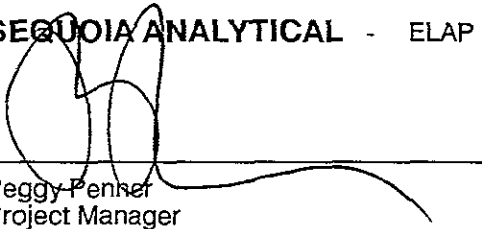
QC Batch Number: GC052896BTEX20A  
Instrument ID: GCHP20

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	121

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 Former Bulk 960521-V1  
Sample Descript: MW-3  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9605E92-03

Sampled: 05/21/96  
Received: 05/22/96  
Extracted: 05/24/96  
Analyzed: 05/25/96  
Reported: 06/10/96

QC Batch Number: GC0524960HBPEXB  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	1000 Unidentified HC
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	106

Results quantitated against a diesel standard.  
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 Former Bulk 960521-V1 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9605E92-03	Sampled: 05/21/96 Received: 05/22/96 Analyzed: 05/28/96 Reported: 06/10/96
Attention: Jim Keller		
QC Batch Number: GC052896BTEX21A		
Instrument ID: GCHP21		

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	106

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 Former Bulk 960521-V1  
Sample Descript: MW-4  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9605E92-04

Sampled: 05/21/96  
Received: 05/22/96  
Extracted: 05/24/96  
Analyzed: 05/25/96  
Reported: 06/10/96

QC Batch Number: GC0524960HBPEXB  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	500 Unidentified HC
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 102

Results quantitated against a diesel standard.  
Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

Peggy Penner  
Project Manager







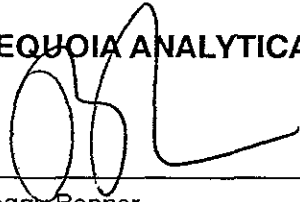
Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron Former Bulk 960521-V1 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9605E92-04	Sampled: 05/21/96 Received: 05/22/96 Analyzed: 05/28/96 Reported: 06/10/96
Attention: Jim Keller		
QC Batch Number: GC052896BTEX20A		
Instrument ID: GCHP20		

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

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

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

SEQUOIA ANALYTICAL - ELAP #1210




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Peggy Penner  
Project Manager





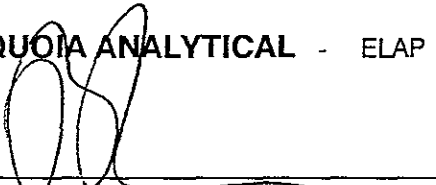
Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron Former Bulk 960521-V1 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9605E92-05	Sampled: 05/21/96 Received: 05/22/96 Extracted: 05/24/96 Analyzed: 05/25/96 Reported: 06/10/96
Attention: Jim Keller		
QC Batch Number: GC0524960HBPEXB		
Instrument ID: GCHP5B		

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	160 Unidentified HC
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	99

Results quantitated against a diesel standard.  
Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210



Peggy Penner  
Project Manager





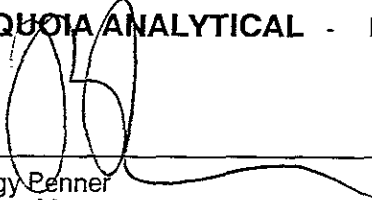
Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron Former Bulk 960521-V1 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9605E92-05	Sampled: 05/21/96 Received: 05/22/96 Analyzed: 05/28/96 Reported: 06/10/96
Attention: Jim Keller		
QC Batch Number: GC052896BTEX20A		
Instrument ID: GCHP20		

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	104

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 Former Bulk 960521-V1  
Sample Descript: MW-6  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9605E92-06

Sampled: 05/21/96  
Received: 05/22/96  
Extracted: 05/24/96  
Analyzed: 05/24/96  
Reported: 06/10/96

QC Batch Number: GC0524960HBPEXB  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	53 Unidentified HC
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	99

Results quantitated against a diesel standard.  
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 Former Bulk 960521-V1  
Sample Descript: MW-6  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9605E92-06

Sampled: 05/21/96  
Received: 05/22/96  
Analyzed: 05/28/96  
Reported: 06/10/96


QC Batch Number: GC052896BTEX20A  
Instrument ID: GCHP20

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	107

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

QC Batch Number: GC052896BTEX20A  
Instrument ID: GCHP20

Client Proj. ID: Chevron Former Bulk 960521-V1  
Sample Descript: TB  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9605E92-07

Sampled: 05/21/96  
Received: 05/22/96  
Analyzed: 05/28/96  
Reported: 06/10/96

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	98

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner  
Project Manager





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

Client Project ID: Chevron Former Bulk / 960521-V1  
Matrix: Liquid

Work Order #: 9605E92 -02

Reported: Jun 11, 1996

### QUALITY CONTROL DATA REPORT

**Analyte:** Total Recoverable  
Petroleum Hydrocarb.

**QC Batch#:** OP0531965520EXA  
**Analy. Method:** SM 5520 BF-MOD  
**Prep. Method:** SPE

**Analyst:** C. Alcayde  
**MS/MSD #:** BLK053196  
**Sample Conc.:** N.D.  
**Prepared Date:** 5/31/96  
**Analyzed Date:** 6/4/96  
**Instrument I.D.#:** Manual  
**Conc. Spiked:** 10 mg/L

**Result:** 8.6  
**MS % Recovery:** 86

**Dup. Result:** 7.7  
**MSD % Recov.:** 77

**RPD:** 11  
**RPD Limit:** 0-20

**LCS #:** BLK060396

**Prepared Date:** 6/3/96  
**Analyzed Date:** 6/4/96  
**Instrument I.D.#:** Manual  
**Conc. Spiked:** 10 mg/L

**LCS Result:** 8.3  
**LCS % Recov.:** 83

**MS/MSD** 75-125  
**LCS** 80-120  
**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  
Project Manager

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

9605E92.BLA <1>





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

Client Project ID: Chevron Former Bulk / 960521-V1  
Matrix: Liquid

Work Order #: 9605E92-01

Reported: Jun 11, 1996

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC052996BTEX02A	GC052996BTEX02A	GC052996BTEX02A	GC052996BTEX02A
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 #:	9605D7712	9605D7712	9605D7712	9605D7712
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/29/96	5/29/96	5/29/96	5/29/96
Analyzed Date:	5/29/96	5/29/96	5/29/96	5/29/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.1	9.1	8.9	26
MS % Recovery:	91	91	89	87
Dup. Result:	8.7	8.7	8.8	25
MSD % Recov.:	87	87	88	83
RPD:	4.5	4.5	1.1	3.9
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK052996	BLK052996	BLK052996	BLK052996
Prepared Date:	5/29/96	5/29/96	5/29/96	5/29/96
Analyzed Date:	5/29/96	5/29/96	5/29/96	5/29/96
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	8.5	8.5	26
LCS % Recov.:	87	85	85	87

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

**SEQUOIA ANALYTICAL**  
  
Peggy Penner  
Project Manager

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

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

9605E92.BLA <2>







Blaine Tech Services, Inc. Client Project ID: Chevron Former Bulk / 960521-V1  
985 Timothy Drive Matrix: Liquid  
San Jose, CA 95133 Work Order #: 9605E92-02, 04-07 Reported: Jun 11, 1996  
Attention: Jim Keller

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC052896BTEX20A	GC052896BTEX20A	GC052896BTEX20A	GC052896BTEX20A
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 #:	9605C6803	9605C6803	9605C6803	9605C6803
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/28/96	5/28/96	5/28/96	5/28/96
Analyzed Date:	5/28/96	5/28/96	5/28/96	5/28/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	9.8	9.6	29
MS % Recovery:	100	98	96	97
Dup. Result:	10	9.7	9.7	29
MSD % Recov.:	100	97	97	97
RPD:	0.0	1.0	1.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK052896	BLK052896	BLK052896	BLK052896
Prepared Date:	5/28/96	5/28/96	5/28/96	5/28/96
Analyzed Date:	5/28/96	5/28/96	5/28/96	5/28/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	9.5	9.7	29
LCS % Recov.:	100	95	97	97

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

**Please Note:**  
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**SEQUOIA ANALYTICAL**  
  
Peggy Penner  
Project Manager

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

9605E92.BLA <3>





Blaine Tech Services, Inc. Client Project ID: Chevron Former Bulk / 960521-V1  
 985 Timothy Drive Matrix: Liquid  
 San Jose, CA 95133 Work Order #: 9605E92-03 Reported: Jun 11, 1996  
 Attention: Jim Keller

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC052896BTEX21A	GC052896BTEX21A	GC052896BTEX21A	GC052896BTEX21A
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 #:	9605C6803	9605C6803	9605C6803	9605C6803
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/28/96	5/28/96	5/28/96	5/28/96
Analyzed Date:	5/28/96	5/28/96	5/28/96	5/28/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	11	11	33
MS % Recovery:	110	110	110	110
Dup. Result:	11	11	11	35
MSD % Recov.:	110	110	110	117
RPD:	0.0	0.0	0.0	5.9
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK052896	BLK052896	BLK052896	BLK052896
Prepared Date:	5/28/96	5/28/96	5/28/96	5/28/96
Analyzed Date:	5/28/96	5/28/96	5/28/96	5/28/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	30
LCS % Recov.:	100	100	100	100

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

**SEQUOIA ANALYTICAL**  
  
 Peggy Penner  
 Project Manager

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





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: <b>Chevron Former Bulk / 960521-V1</b> Matrix: <b>Liquid</b>  Work Order #: <b>9605E92-01-06</b>	Reported: <b>Jun 11, 1996</b>
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**QUALITY CONTROL DATA REPORT**

<b>Analyte:</b> Diesel
<b>QC Batch#:</b> GC0524960HBPEXB
<b>Analy. Method:</b> EPA 8015M
<b>Prep. Method:</b> EPA 3510

**Analyst:** J. Minkel  
**MS/MSD #:** 9605E9004  
**Sample Conc.:** N.D.  
**Prepared Date:** 5/24/96  
**Analyzed Date:** 5/25/96  
**Instrument I.D.#:** GCHP4  
**Conc. Spiked:** 1000 µg/L

**Result:** 900  
**MS % Recovery:** 90

**Dup. Result:** 990  
**MSD % Recov.:** 99

**RPD:** 9.5  
**RPD Limit:** 0-50

**LCS #:** BLK052896  
  
**Prepared Date:** 5/28/96  
**Analyzed Date:** 5/28/96  
**Instrument I.D.#:** GCHP5  
**Conc. Spiked:** 1000 µg/L  
  
**LCS Result:** 1000  
**LCS % Recov.:** 100

<b>MS/MSD</b>	50-150
<b>LCS</b>	60-140
<b>Control Limits</b>	

**SEQUOIA ANALYTICAL**  
  
Peggy Renner  
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

9605E92.BLA <5>





# **Field Data Sheets**



# CHEVRON WELL MONITORING DATA SHEET

Project #: <b>960521-V-1</b>	Station #: <b>SIGNAL BULK PLANT</b>
Sampler: <b>Fred</b>	Start Date: <b>5-21-96</b>
Well I.D.: <b>MW-1</b>	Well Diameter: (circle one) <b>(2)</b> 3 4 6
Total Well Depth: Before <b>22.43</b> After	Depth to Water: Before <b>5.52</b> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <b>(PVC)</b>	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

<b>2.70</b>	x	<b>3</b>	=	<b>8.1</b>
1 Case Volume		Specified Volumes		gallons

Purging: <del>Bailer</del> <del>Disposable Bailer</del> Middleburg Electric Submersible Extraction Pump Other _____	Sampling: <del>Bailer</del> <del>Disposable Bailer</del> Extraction Port Other _____
--	---

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1129	64.8	7.6	1000	>200	2.5	
1134	65.0	7.2	1000	>200	5.0	
1139	65.0	7.2	1000	>2000	8.5	
			<i>Slow to Recharge</i>			

Did Well Dewater? **no** If yes, gals.      Gallons Actually Evacuated: **8.5**

Sampling Time: <b>1149</b>	Sampling Date: <b>5-21-96</b>
Sample I.D.: <b>MW-1</b>	Laboratory: <b>SED</b>
Analyzed for: <b>(TPH-G BTEX TPH-D)</b>	OTHER: <b>MTBE</b>
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: <b>(TPH-G BTEX TPH-D)</b>	OTHER:

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>960521-V-1</u>	Station #: <u>SIGNAL BACK PLANT</u>
Sampler: <u>Fred</u>	Start Date: <u>5-21-96</u>
Well I.D.: <u>MW-2</u>	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before <u>22.09</u> After	Depth to Water: Before <u>3.25</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>2.69</u>	x	<u>3</u>	=	<u>8.08</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:
1022	63.4	7.2	800	7200	3.0	
1026	63.0	7.0	800	7200	6.0	
1029	63.0	7.0	800	7200	8.5	
		<u>Slow to Recharge</u>				

Did Well Dewater? no If yes, gals. Gallons Actually Evacuated: 8.5

Sampling Time: 1039 Sampling Date: 5-21-96

Sample I.D.: \_\_\_\_\_ Laboratory: SEP

Analyzed for: ~~TPH-G~~ BTEX ~~TPH-D~~ OTHER:  
 (Circle) BTF  
53200+G MTBE

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

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



# CHEVRON WELL MONITORING DATA SHEET

Project #: <b>960521-V-1</b>	Station #: <b>SIGNAL Bulk Plant</b>
Sampler: <b>Fred</b>	Start Date: <b>5-21-96</b>
Well I.D.: <b>MW-3</b>	Well Diameter: (circle one) <b>②</b> 3 4 6
Total Well Depth: Before <b>23.42</b> After	Depth to Water: Before <b>6.98</b> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <b>PVC</b>	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

<b>2.63</b>	x	<b>3</b>	=	<b>7.89</b>
1 Case Volume		Specified Volumes		gallons

Purging: <del>Bailer</del> <del>Disposable Bailer</del> Middleburg Electric Submersible Extraction Pump Other _____	Sampling: <del>Bailer</del> <del>Disposable Bailer</del> Extraction Port Other _____
--	---

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
0955	64.4	7.2	1000	>200	2.5	
0957	64.8	7.0	1000	>200	5.0	
1002	64.8	7.0	1000	>200	8.0	

Did Well Dewater? **no** If yes, gals. Gallons Actually Evacuated: **8.0**

Sampling Time: **1012** Sampling Date: **5-21-96**

Sample I.D.: **MW-3** Laboratory: **SEC**

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

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

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

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>960521-V-1</u>	Station #: <u>SIGNAL Bulk Plant</u>
Sampler: <u>Fred</u>	Start Date: <u>5-21-96</u>
Well I.D.: <u>MW-4</u>	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before <u>21.05</u> After	Depth to Water: Before <u>6.78</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>2.28</u>	x	<u>3</u>	=	<u>6.84</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer <u>Disposable Bailer</u> Middleburg Electric Submersible Extraction Pump Other _____	Sampling: Bailer <u>Disposable Bailer</u> Extraction Port Other _____
---	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1055	65.2	7.4	800	>200	2.5	
1059	65.2	7.4	800	>200	5.0	
1104	65.2	7.4	800	>200	7.0	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 7.0

Sampling Time: 1114 Sampling Date: 5-21-96

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

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

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

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

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>960521-V-1</u>	Station #: <u>Signal Bulk Plant</u>
Sampler: <u>Fred</u>	Start Date: <u>5-21-96</u>
Well I.D.: <u>MW-5</u>	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before <u>22.00</u> After	Depth to Water: Before <u>5.8</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>2.60</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>7.80</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer <del>Disposable Bailer</del> Middleburg Electric Submersible Extraction Pump Other _____	Sampling: Bailer <del>Disposable Bailer</del> Extraction Port Other _____
---	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1200	65.6	7.8	600	7200	3.0	
1203	65.6	7.8	600	7200	6.0	
1206	65.6	7.8	600	7200	8.0	

Did Well Dewater?      If yes, gals.      Gallons Actually Evacuated: 8.0

Sampling Time: 1216      Sampling Date: 5-21-96

Sample I.D.: MW-5      Laboratory: SEP

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

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

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

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>960521-V4</u>	Station #: <u>SIGNAL Bulk Plant</u>
Sampler: <u>Ford</u>	Start Date: <u>5-21-96</u>
Well I.D.: <u>MW-6</u>	Well Diameter: (circle one) <u>3</u> 4 6
Total Well Depth: Before <u>20.19</u> After	Depth to Water: Before <u>7.33</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>2.05</u>	x	<u>3</u>	=	<u>6.17</u>
1 Case Volume		Specified Volumes		gallons

Purging: <u>Bailer</u> <del>Disposable Bailer</del> Middleburg Electric Submersible Extraction Pump Other _____	Sampling: <u>Bailer</u> <del>Disposable Bailer</del> Extraction Port Other _____
--	---

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
0930	65.8	7.8	800	7200	2.00	
0933	65.8	7.2	800	7200	4.0	
0936	65.8	7.2	800	7200	6.5	

Did Well Dewater? no If yes, gals. Gallons Actually Evacuated: 6.5

Sampling Time: <u>0939</u>	Sampling Date: <u>5-21-96</u>
Sample I.D.: <u>MW-6</u>	Laboratory: <u>SEP</u>
Analyzed for: <u>TPH-G</u> BTEX TPH-D OTHER: (Circle)	<u>MTBE</u>
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: TPH-G BTEX TPH-D OTHER: (Circle)	