

AP 5010 871



99 MAR 25 PM 3:05

March 24, 1999

**Chevron Products Company**  
6001 Bollinger Canyon Road  
Building L, Room 1110  
PO Box 6004  
San Ramon, CA 94583-0904

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

Mr. Thomas Peacock, Manager  
Alameda County Health Care Services  
Division of Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Re: Chevron Service Station #9-9708  
5910 MacArthur Blvd.  
Oakland, California**

Dear Mr. Peacock:

Enclosed is the Fourth Quarter Groundwater Monitoring and Sampling Report for 1998 that was prepared by our consultant Gettler-Ryan Inc. for the above noted facility. The groundwater samples were analyzed for the presence of TPH-g, BTEX, MtBE and for TPH-d in monitoring well MW-3. All wells are sampled quarterly.

The benzene constituent decreased in monitoring well MW-1 from the previous sampling event, while it increased in well MW-2. In well MW-3 the BTE and MtBE constituents were below method detection limits with the TPH-d (indicated as an unidentified hydrocarbon), increasing from the previous sampling event.

Depth to ground water varied from 11.80 feet to 13.43 feet below grade with a direction of flow westerly.

A work plan was submitted and approved for the installation of an additional groundwater monitoring well to further delineate the lateral extent of MtBE in the groundwater beneath the site. Chevron has submitted an encroachment permit to the City of Oakland Engineering Services for the installation of the well in the public right-of-way and we are waiting to receive their approval.

March 24, 1999  
Mr. Thomas Peacock  
Chevron Service Station #9-9708  
Page 2

Chevron will continue monitor the site as noted above. If you have any questions call me at (925) 842-9136.

Sincerely,  
**CHEVRON PRODUCTS COMPANY**



Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

Cc. Mr. Bill Scudder, Chevron

Mr. Nisson Saidion  
5910 MacArthur Blvd.  
Oakland, CA 94605

**BLAINE**  
TECH SERVICES INC.



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

March 15, 1999

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

#### 4th Quarter 1998 Monitoring at 9-9708

Fourth Quarter 1998 Groundwater Monitoring at  
Chevron Service Station Number 9-9708  
5910 MacArthur Blvd.  
Oakland, CA

Monitoring Performed on December 29, 1998

---

#### Groundwater Sampling Report 981229-S-2

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,

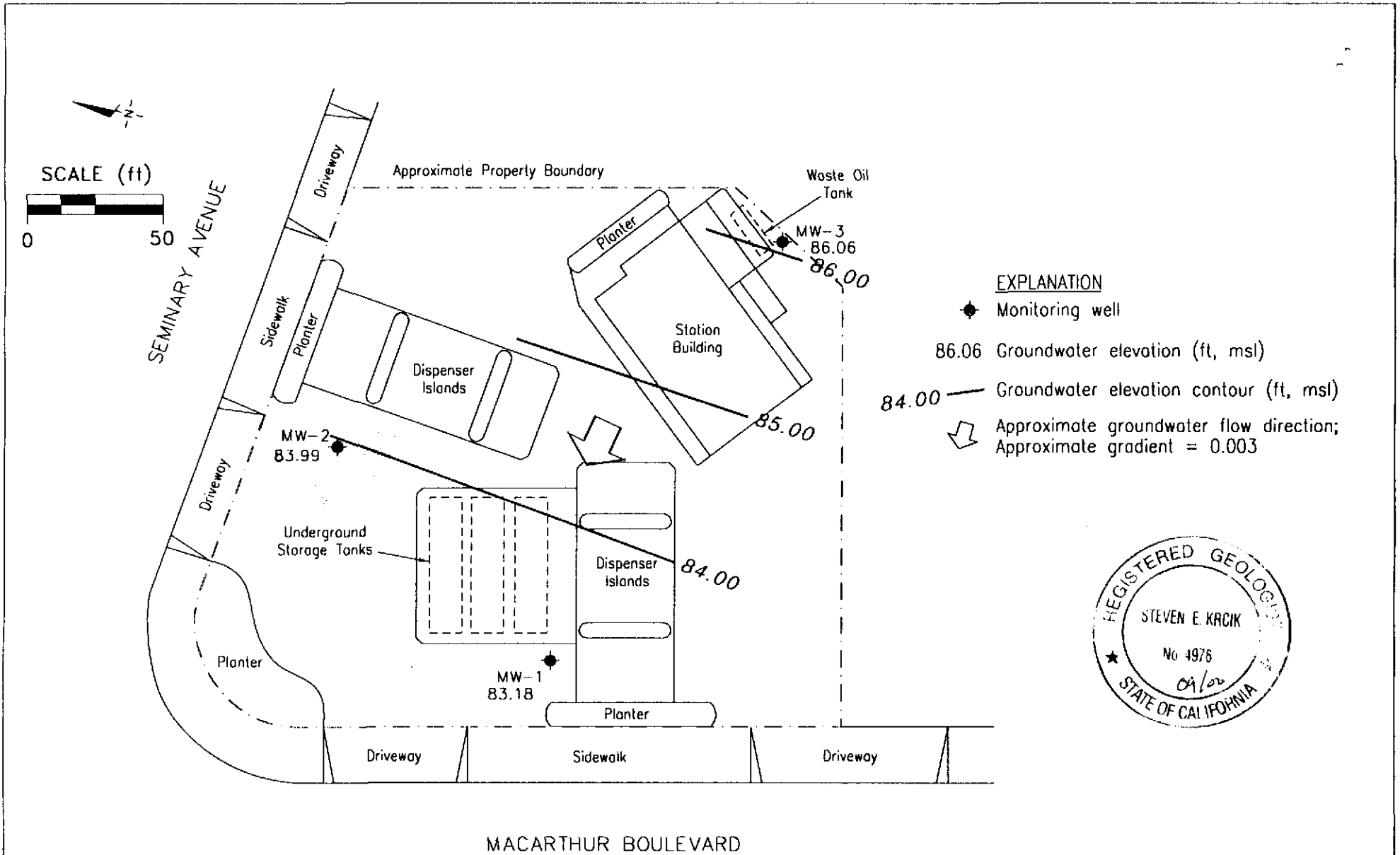


Christine Lillie  
Project Coordinator

CAL/sb

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

# Professional Engineering Appendix



Ref. 9708-qm.dwg  
 Basemap from Gettler-Ryan, Inc.

PREPARED BY

**Chevron Station 9-9708**  
 5910 Mac Arthur Boulevard  
 Oakland, California

**GROUNDWATER ELEVATION CONTOUR MAP,**  
**DECEMBER 29, 1998**

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

# **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	MTBE	TPH-Diesel	1,2-DCB	1,2-DCA
<b>MW-1</b>													
05/29/97	96.61	84.41	12.20	--	--	--	--	--	--	--	--	--	--
06/04/97	96.61	84.40	12.21	--	380	58	1.2	5.4	40	85	--	--	--
09/16/97	96.61	83.84	12.77	--	420	120	<0.5	19	2.7	28	--	--	--
12/17/97	96.61	85.43	11.18	--	210*	43	0.61	11	0.61	69	--	--	--
03/18/98	96.61	84.59	12.02	--	210*	47	<0.5	8.2	<0.5	92	--	--	--
06/28/98	96.61	83.99	12.62	--	<50	<0.5	<0.5	<0.5	<0.5	66	--	--	--
09/07/98	96.61	82.32	14.29	--	<50	6.7	<0.5	<0.5	<0.5	92	--	--	--
12/29/98	96.61	83.18	13.43	--	<100	<1.0	<1.0	2.24	1.14	278	--	--	--
 <b>MW-2</b>													
05/29/97	96.91	83.85	13.06	--	--	--	--	--	--	--	--	--	--
06/04/97	96.91	83.96	12.95	--	1600	120	5.9	32	15	2100	--	--	--
09/16/97	96.91	83.92	12.99	--	1100	23	3.2	7.0	2.5	1200	--	--	--
12/17/97	96.91	84.73	12.18	--	7100*	650	69	610	69	4700	--	--	--
12/17/97	96.91	84.73	12.18	Confirmation run	--	--	--	--	--	2600	--	--	--
03/18/98	96.91	84.21	12.70	--	5900*	250	<50	98	<50	12,000	--	--	--
03/18/98	96.91	84.21	12.70	Confirmation run	--	--	--	--	--	7100	--	--	--
06/28/98	96.91	83.98	12.93	--	4300	400	<10	<10	<10	3000	--	--	--
06/28/98	96.91	83.98	12.93	Confirmation run	--	--	--	--	--	4000	--	--	--
09/07/98	96.91	83.94	12.97	--	3700	220	5.1	38	7.6	1300	--	--	--
09/07/98	96.91	83.94	12.97	Confirmation run	--	--	--	--	--	1400	--	--	--
12/29/98	96.91	83.99	12.92	--	<b>6500</b>	<b>573</b>	26.8	131	33.9	<b>2660</b>	--	--	--

\* 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	MTBE	TPH-Diesel	1,2-DCB	1,2-DCA
<b>MW-3</b>													
05/29/97	97.86	86.41	11.45	--	--	--	--	--	--	--	--	--	--
06/04/97	97.86	86.58	11.28	**	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1200	ND	1.0
09/16/97	97.86	85.67	12.19	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2700*	--	--
12/17/97	97.86	87.06	10.80	--	<50	0.9	0.53	<0.5	<0.5	<2.5	1200*	--	--
03/18/98	97.86	86.98	10.88	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	820*	--	--
06/28/98	97.86	86.26	11.60	***	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1100*	0.99	ND
09/07/98	97.86	85.64	12.22	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1100*	0.79	0.54
12/29/98	97.86	86.06	11.80	***	185	<0.5	<0.5	<0.5	0.669	<2.0	1760*	1.04	0.578

\* Chromatogram pattern indicates an unidentified hydrocarbon.

\*\* Sample also analyzed for the following: Total Oil & Grease by EPA Method 5520F was ND; Semivolatile Organics by EPA Method 8270B were ND; Volatile Organics by EPA Method 8010B were ND.

\*\*\* Sample was also analyzed for HVOs. Concentrations of all other compounds were below method detection limits ranging from 0.5 ppb to 5.0 ppb.

## 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	MTBE	TPH-Diesel	1,2-DCB	1,2-DCA
<b>TRIP BLANK</b>													
06/04/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
09/16/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
12/17/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	--
03/18/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	--
06/28/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	--
09/07/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	--
09/07/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	--
12/29/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on December 29, 1998.

Earlier field data and analytical results were provided by Gettler-Ryan.

MW-1 through MW-3 were surveyed on June 18, 1997, by Virgil Chavez Land Surveying (PLS #6323). Benchmark Elevation =95.88' (msl).

ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl tertiary-butyl ether

HVOs = Halogenated Volatile Organics

1,2-DCB = 1,2-Dichlorobenzene

1,2-DCA = 1,2-Dichloroethane

# Analytical Appendix



Sequoia  
Analytical

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

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

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

January 14, 1999

Christine Lillie  
Blaine Tech/Chevron  
1680 Rogers Ave.  
San Jose, CA 95112

RE: Chevron/P901008

Dear Christine Lillie

Enclosed are the results of analyses for sample(s) received by the laboratory on December 31, 1998. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Matt Sakai  
Project Manager

CA ELAP Certificate Number 2245





**Sequoia  
Analytical**

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

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

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

Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**ANALYTICAL REPORT FOR P901008**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	P901008-01	Water	12/29/98
MW-2	P901008-02	Water	12/29/98
MW-3	P901008-03	Water	12/29/98
TB	P901008-04	Water	12/29/98





Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>MW-1</b>				<b><u>P901008-01</u></b>		<b><u>Water</u></b>		
Gasoline	9010067	1/6/99	1/6/99		100	ND	ug/l	
Benzene	"	"	"		1.00	ND	"	
Toluene	"	"	"		1.00	ND	"	
Ethylbenzene	"	"	"		1.00	2.24	"	
Xylenes (total)	"	"	"		1.00	1.14	"	
Methyl tert-butyl ether	"	"	"		4.00	278	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		90.0	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		88.7	"	
<b>MW-2</b>				<b><u>P901008-02</u></b>		<b><u>Water</u></b>		
Gasoline	9010067	1/6/99	1/6/99		1000	6500	ug/l	
Benzene	"	"	"		10.0	573	"	
Toluene	"	"	"		10.0	26.8	"	
Ethylbenzene	"	"	"		10.0	131	"	
Xylenes (total)	"	"	"		10.0	33.9	"	
Methyl tert-butyl ether	"	"	"		40.0	2660	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		98.0	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		87.3	"	
<b>MW-3</b>				<b><u>P901008-03</u></b>		<b><u>Water</u></b>		
Gasoline	9010067	1/6/99	1/6/99		50.0	185	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	0.669	"	
Methyl tert-butyl ether	"	"	"		2.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		89.7	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		98.0	"	
<b>TB</b>				<b><u>P901008-04</u></b>		<b><u>Water</u></b>		
Gasoline	9010067	1/7/99	1/8/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		100	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		91.0	"	





Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>MW-3</u>				<u>P901008-03</u>			<u>Water</u>	
Diesel	9010012	1/4/99	1/11/99		0.0500	1.76	mg/l	1
Surrogate: o-Terphenyl	"	"	"			80.4	%	





Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Volatile Organic Compounds by EPA Method 8010B  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>MW-3</b>				<b>P901008-03</b>			<b>Water</b>	
Bromodichloromethane	9010176	1/6/99	1/6/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
<b>1,2-Dichlorobenzene</b>	"	"	"		0.500	<b>1.04</b>	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Dichlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
<b>1,2-Dichloroethane</b>	"	"	"		0.500	<b>0.578</b>	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"			109	%	
Surrogate: 1,4-Dichlorobutane	"	"	"			103	"	







Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9010067</b>			<b>Date Prepared: 1/6/99</b>			<b>Extraction Method: EPA 5030 waters</b>				
<b>Blank</b>			<b>9010067-BLK1</b>							
Gasoline	1/6/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	2.00				
Surrogate: a,a,a-Trifluorotoluene	"	300		295	"	65.0-135	98.3			
Surrogate: 4-Bromofluorobenzene	"	300		268	"	65.0-135	89.3			
<b>Blank</b>			<b>9010067-BLK2</b>							
Gasoline	1/7/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	2.00				
Surrogate: a,a,a-Trifluorotoluene	"	300		303	"	65.0-135	101			
Surrogate: 4-Bromofluorobenzene	"	300		290	"	65.0-135	96.7			
<b>LCS</b>			<b>9010067-BS1</b>							
Benzene	1/6/99	100		106	ug/l	65.0-135	106			
Toluene	"	100		102	"	65.0-135	102			
Ethylbenzene	"	100		99.5	"	65.0-135	99.5			
Xylenes (total)	"	300		301	"	65.0-135	100			
Surrogate: a,a,a-Trifluorotoluene	"	300		329	"	65.0-135	110			
<b>LCS</b>			<b>9010067-BS2</b>							
Gasoline	1/7/99	1000		1020	ug/l	65.0-135	102			
Surrogate: 4-Bromofluorobenzene	"	300		290	"	65.0-135	96.7			
<b>Matrix Spike</b>			<b>9010067-MS1</b>		<b>P901008-03</b>					
Benzene	1/6/99	100	ND	99.4	ug/l	65.0-135	99.4			
Toluene	"	100	ND	98.3	"	65.0-135	98.3			
Ethylbenzene	"	100	ND	97.0	"	65.0-135	97.0			
Xylenes (total)	"	300	0.669	293	"	65.0-135	97.4			
Surrogate: a,a,a-Trifluorotoluene	"	300		290	"	65.0-135	96.7			
<b>Matrix Spike Dup</b>			<b>9010067-MSD1</b>		<b>P901008-03</b>					
Benzene	1/6/99	100	ND	95.7	ug/l	65.0-135	95.7	20.0	3.79	
Toluene	"	100	ND	95.5	"	65.0-135	95.5	20.0	2.89	





Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b><u>Matrix Spike Dup (continued)</u></b>	<b><u>9010067-MSD1</u></b>	<b><u>P901008-03</u></b>								
Ethylbenzene	1/6/99	100	ND	94.0	ug/l	65.0-135	94.0	20.0	3.14	
Xylenes (total)	"	300	0.669	284	"	65.0-135	94.4	20.0	3.13	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	300		275	"	65.0-135	91.7			





Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9010012</b>		<b>Date Prepared: 1/4/99</b>		<b>Extraction Method: EPA 3520B</b>						
<b>Blank</b>		<b>9010012-BLK1</b>								
Diesel	1/10/99			ND	mg/l	0.0500				
Surrogate: <i>o</i> -Terphenyl	"	0.100		0.0887	"		88.7			
<b>LCS</b>		<b>9010012-BS1</b>								
Diesel	1/10/99	1.00		0.917	mg/l	28.0-138	91.7			
Surrogate: <i>o</i> -Terphenyl	"	0.100		0.0838	"		83.8			
<b>LCS Dup</b>		<b>9010012-BSD1</b>								
Diesel	1/10/99	1.00		0.915	mg/l	28.0-138	91.5		0.218	
Surrogate: <i>o</i> -Terphenyl	"	0.100		0.0818	"		81.8			





Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Volatile Organic Compounds by EPA Method 8010B/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9010176</b>			<b>Date Prepared: 1/5/99</b>			<b>Extraction Method: EPA 5030 waters</b>				
<b>Blank</b>			<b>9010176-BLK1</b>							
Bromodichloromethane	1/5/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	0.500				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				
Dibromochloromethane	"			ND	"	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				
Methylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		29.9	"		99.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.1	"		93.7			
<b>Blank</b>			<b>9010176-BLK2</b>							
Bromodichloromethane	1/6/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	0.500				
Carbon tetrachloride	"			ND	"	0.500				





Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Volatile Organic Compounds by EPA Method 8010B/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b><u>Blank (continued)</u></b>										
<b><u>9010176-BLK2</u></b>										
Chlorobenzene	1/6/99			ND	ug/l	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				
Dibromochloromethane	"			ND	"	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				
Methylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		29.8	"		99.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		30.5	"		102			
<b><u>LCS</u></b>										
<b><u>9010176-BS1</u></b>										
Chlorobenzene	1/5/99	10.0		8.90	ug/l		89.0			
1,1-Dichloroethene	"	10.0		8.34	"		83.4			
Trichloroethene	"	10.0		9.88	"		98.8			
Surrogate: Bromochloromethane	"	30.0		25.7	"		85.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		26.4	"		88.0			
<b><u>LCS</u></b>										
<b><u>9010176-BS2</u></b>										
Chlorobenzene	1/6/99	10.0		9.94	ug/l		99.4			
1,1-Dichloroethene	"	10.0		9.60	"		96.0			





Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Volatile Organic Compounds by EPA Method 8010B/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b><u>LCS (continued)</u></b>		<b><u>9010176-BS2</u></b>								
Trichloroethene	1/6/99	10.0		10.5	ug/l		105			
Surrogate: Bromochloromethane	"	30.0		28.8	"		96.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.3	"		94.3			
<b><u>Matrix Spike</u></b>		<b><u>9010176-MS1</u></b>	<b><u>P901019-01</u></b>							
Chlorobenzene	1/5/99	10.0	ND	9.90	ug/l		99.0			
1,1-Dichloroethene	"	10.0	ND	9.26	"		92.6			
Trichloroethene	"	10.0	ND	10.0	"		100			
Surrogate: Bromochloromethane	"	30.0		26.9	"		89.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.0	"		93.3			
<b><u>Matrix Spike Dup</u></b>		<b><u>9010176-MSD1</u></b>	<b><u>P901019-01</u></b>							
Chlorobenzene	1/5/99	10.0	ND	9.76	ug/l		97.6		1.42	
1,1-Dichloroethene	"	10.0	ND	9.56	"		95.6		3.19	
Trichloroethene	"	10.0	ND	9.58	"		95.8		4.29	
Surrogate: Bromochloromethane	"	30.0		24.8	"		82.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		27.4	"		91.3			





Blaine Tech/Chevron 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron Project Number: 9-9708/981229-S2 Project Manager: Christine Lillie	Sampled: 12/29/98 Received: 12/31/98 Reported: 1/14/99
---	---	--

**Notes and Definitions**

#	Note
---	------

- 1 Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

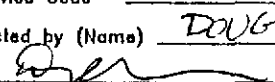


Fax copy of Lab Report and COC to Chevron Contact:  Yes  No

# Chain-of-Custody-Record

**Chevron Products Co.**  
 P.O. BOX 6004  
 San Ramon, CA 94583  
 FAX (925)842-8370

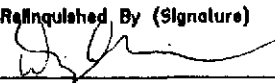
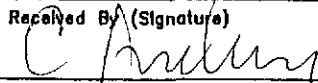
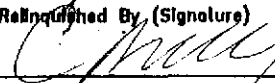
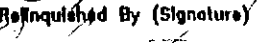
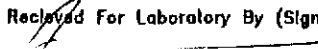
Chevron Facility Number 9-9708  
 Facility Address 5910 Macarthur Blvd., Oakland  
 Consultant Project Number 981229-52  
 Consultant Name BLAINE TECH SERVICE, INC.  
 Address 1680 ROGERS AVE., SAN JOSE  
 Project Contact (Name) CHRISTINE LILLIE  
 (Phone) 408-573-0555 (Fax Number) 408-573-7771

Chevron Contact (Name) PHIL BRIGGS  
 (Phone) (925) 842-9136  
 Laboratory Name SEQUOIA  
 Laboratory Service Order 9144488  
 Laboratory Service Code ZZ02800  
 Samples Collected by (Name) DOUG SANDERS  
 Signature 

State Method:  CA  OR  WA  NW Series  CO  UT

Sample Number	Number of Containers	Matrix		Sample Preservation	Date/Time	State Method: <input type="checkbox"/> CA <input type="checkbox"/> OR <input type="checkbox"/> WA <input type="checkbox"/> NW Series <input type="checkbox"/> CO <input type="checkbox"/> UT													Remarks						
		S = Soil	A = Air			W = Water	C = Charcoal	BTEX/MTBE+TPH GAS (8020 + 8015)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oxygenates (8260)	Purgeable Halocarbons (8010)	Purgeable Organics (8260)	Extractable Organics (8270)	Oil and Grease (5520)	Metals (ICAP or AA) Cd, Cr, Pb, Zn, Ni	BTEX (8020)	BTEX/MTBE/Naph. (8020)		TPH - HClD	TPH-D Extended				
MW-1	3	W		HCl	12/29/96 1325	X																			Lab Sample No. P901008-01
MW-2	3	W		HCl	1340	X																			-02
MW-3	8	W		HCl/Air	1355	X		X		X															03
TB	2	W		HCl	12/29/96	X																			30 04 35

COOLER CUSTODY SEALS INTACT | NOT INTACTED NA  
 COOLER TEMPERATURE 4 °C

Relinquished By (Signature) 	Organization <u>BFB</u>	Date/Time <u>12/30/98 1000</u>	Received By (Signature) 	Organization	Date/Time <u>12-30-98</u>	Iced Y/N	Turn Around Time (Circle Choice) <input type="radio"/> 24 Hrs. <input type="radio"/> 48 Hrs. <input type="radio"/> 5 Days <input type="radio"/> 10 Days <input checked="" type="radio"/> As Contracted
Relinquished By (Signature) 	Organization	Date/Time <u>1/2/99</u>	Received By (Signature)	Organization	Date/Time	Iced Y/N	
Relinquished By (Signature) 	Organization	Date/Time <u>12-31/98</u>	Received For Laboratory By (Signature) 	Organization	Date/Time <u>1/2/99</u>	Iced Y/N	



Field  
Data  
Sheets



## CHEVRON WELL MONITORING DATA SHEET

Project #: 981229-52	Station #: 9-9708
Sampler: DOUG	Date: 12-29-98
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8
Total Well Depth: 20.10	Depth to Water: 13.43
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: Bailer      Sampling Method: Bailer  
Disposable Bailer      Disposable Bailer  
 Middleburg      Extraction Port  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

Other: \_\_\_\_\_

1.1	x	3	=	3.2	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1318	64.8	6.4	980	1.0	
1320	64.3	6.4	990	2.0	
1322	65.0	6.5	970	3.5	

Did well dewater?    Yes    No    Gallons actually evacuated: 3.5

Sampling Time: 1325    Sampling Date: 12-29-98

Sample I.D.: MW-1    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 #: 981229-52	Station #: 9-9708
Sampler: DOVG	Date: 12-29-98
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 19.94	Depth to Water: 11.80
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: Bailer      Sampling Method: Bailer  
Disposable Bailer      Disposable Bailer  
 Middleburg      Extraction Port  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

Other: \_\_\_\_\_

1.3	x	3	=	3.9	Gals.
i Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1349	59.3	6.7	1100	1.5	
1351	62.3	6.6	930	3.0	
1353	61.8	6.6	940	4.0	

Did well dewater?    Yes    No    Gallons actually evacuated: 4.0

Sampling Time: 1355      Sampling Date: 12-29-98

Sample I.D.: MW-3      Laboratory: Sequoia CORE N. Creek Assoc. Labs

Analyzed for: TPH-G BTEX MTBE TPH-D Other 8010

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