

ST 10 P 71



Chevron

July 29, 1999

Chevron Products Company
6001 Bollinger Canyon Road
Building L, Room 1080
PO Box 6004
San Ramon, CA 94583-0904

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

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

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

Dear Mr. Peacock:

Enclosed is the First Quarter Groundwater Monitoring and Sampling Report for 1999 that was prepared by our consultant Blaine Tech Services Inc. for the above noted facility. Note that this is a change in consultants. 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 remained the same in monitoring well MW-1 from the previous sampling event, while it increased in well MW-2. In well MW-3 the TPH-g, BTEX and MtBE constituents were below method detection limits with the TPH-d decreasing from the previous sampling event. This well was also analyzed for Total Oil & Grease, Semi-Volatile Organics and Volatile Organics. All of these constituents were below method detection limits.

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

As noted in previous correspondence, an additional well MW-4, was installed downgradient of MW-2 and has been added to the groundwater-monitoring program for this site. The analytical data will be shown in the next monitoring report.

89 AUG -3 PM 3:18
ENVIRONMENTAL PROTECTION

July 29, 1999

Mr. Thomas Peacock

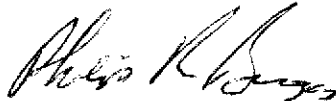
Former Chevron Service Station #9-9708

Page 2

Chevron will continue monitor the site as noted above. If you have any questions call me at (925) 842-9136 or Brett Hunter at (925) 842-8695.

Sincerely,

CHEVRON PRODUCTS COMPANY



Philip R. Briggs

Site Assessment and Remediation Project Manager

Enclosure

Cc. Mr. Bill Scudder, Chevron

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

July 23, 1999

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

1st Quarter 1999 Monitoring at 9-9708

*First Quarter 1999 Groundwater Monitoring at
Chevron Service Station Number 9-9708
5910 MacArthur Blvd.
Oakland, CA*

Monitoring Performed on March 11, 1999

Groundwater Sampling Report 990311-K-4

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,

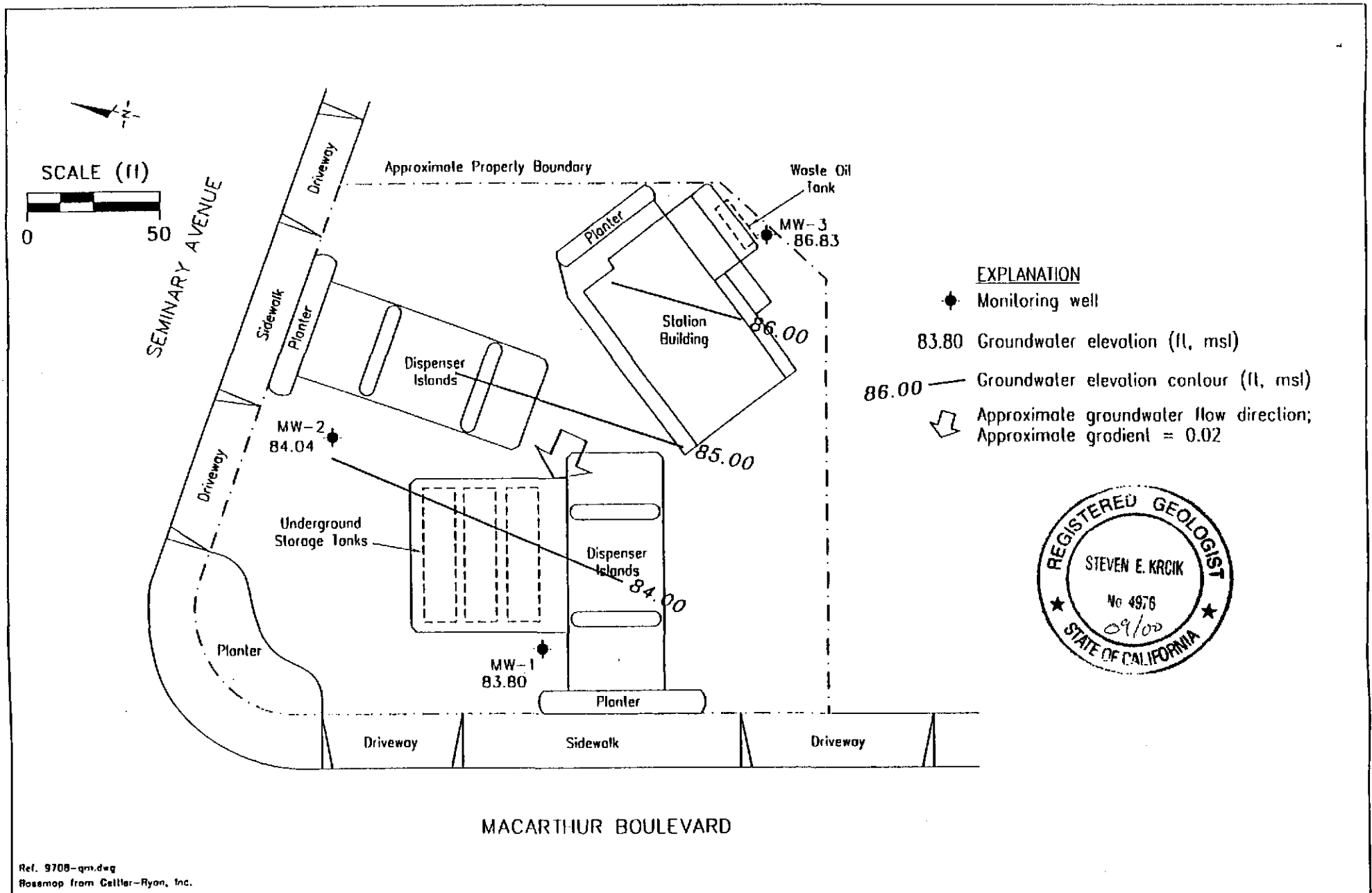


Christine Lillie
Project Coordinator

CAL/sb

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

Professional Engineering Appendix



Ref. 9708-gm.dwg
 Base map from Callier-Ryan, Inc.

PREPARED BY

RRM
 engineering contracting firm

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

GROUNDWATER ELEVATION CONTOUR MAP,
 MARCH 11, 1999

FIGURE:
1
 PROJECT:
 DAC04

Table of Well Data and Analytical Results

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

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	HVOCs
MW-1														
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	--	--	--	--
03/11/99	96.61	83.80	12.81	--	110	<1.0	<1.0	7.95	<1.0	418	--	--	--	--
MW-2														
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	--	6500	573	26.8	131	33.9	2660	--	--	--	--
03/11/99	96.91	84.04	12.87	--	4970	651	30.8	60.3	<5.0	2600	--	--	--	--

* 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	HVOCs
MW-3														
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	<0.5-<5.0
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	<0.5-<5.0
03/11/99	97.86	86.83	11.03	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	1440	<1.0	<1.0	<1.0-<20

* 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.

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	HVOCs
TRIP BLANK														
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	--	--	--	--
03/11/99	--	--	--	--	<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

March 31, 1999

Christine Lillie
Blaine Technical Services, Inc.
1680 Rogers Ave.
San Jose, CA 95112

RE: Chevron USA, Inc./P903407

Dear Christine Lillie

Enclosed are the results of analyses for sample(s) received by the laboratory on March 15, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Scott Forbes
Project Manager

CA ELAP Certificate Number 2245





**Sequoia
Analytical**

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
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Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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ANALYTICAL REPORT FOR P903407

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	P903407-01	Water	3/11/99
MW-2	P903407-02	Water	3/11/99
MW-3	P903407-03	Water	3/11/99
TB	P903407-04	Water	3/11/99





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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**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*
MW-1				P903407-01			Water	
Gasoline	9030544	3/23/99	3/23/99		100	110	ug/l	
Benzene	"	"	"		1.00	ND	"	
Toluene	"	"	"		1.00	ND	"	
Ethylbenzene	"	"	"		1.00	7.95	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Methyl tert-butyl ether	"	"	"		4.00	418	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		92.7	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		100	"	
MW-2				P903407-02			Water	
Gasoline	9030544	3/23/99	3/24/99		500	4970	ug/l	
Benzene	"	"	"		5.00	651	"	
Toluene	"	"	"		5.00	30.8	"	
Ethylbenzene	"	"	"		5.00	60.3	"	
Xylenes (total)	"	"	"		5.00	ND	"	
Methyl tert-butyl ether	"	"	"		20.0	2600	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		92.0	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		102	"	
MW-3				P903407-03			Water	
Gasoline	9030544	3/23/99	3/23/99		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		95.0	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		101	"	
TB				P903407-04			Water	
Gasoline	9030544	3/23/99	3/23/99		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		94.0	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		99.7	"	





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
---	---	--

**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>P903407-03</u>			<u>Water</u>	
Diesel	9030594	3/24/99	3/29/99		0.0500	1.44	mg/l	1
Surrogate: o-Terphenyl	"	"	"			179	%	2





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
---	---	--

**Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>MW-3</u>				<u>P903407-03</u>			<u>Water</u>	
Acetone	9030598	3/24/99	3/24/99		10.0	ND	ug/l	
Benzene	"	"	"		1.00	ND	"	
Bromobenzene	"	"	"		1.00	ND	"	
Bromochloromethane	"	"	"		1.00	ND	"	
Bromodichloromethane	"	"	"		1.00	ND	"	
Bromoform	"	"	"		1.00	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
2-Butanone	"	"	"		10.0	ND	"	
n-Butylbenzene	"	"	"		1.00	ND	"	
sec-Butylbenzene	"	"	"		1.00	ND	"	
tert-Butylbenzene	"	"	"		1.00	ND	"	
Carbon disulfide	"	"	"		10.0	ND	"	
Carbon tetrachloride	"	"	"		1.00	ND	"	
Chlorobenzene	"	"	"		1.00	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		10.0	ND	"	
Chloroform	"	"	"		1.00	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
2-Chlorotoluene	"	"	"		1.00	ND	"	
4-Chlorotoluene	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		1.00	ND	"	
1,2-Dibromo-3-chloropropane	"	"	"		1.00	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		1.00	ND	"	
Dibromomethane	"	"	"		1.00	ND	"	
1,2-Dichlorobenzene	"	"	"		1.00	ND	"	
1,3-Dichlorobenzene	"	"	"		1.00	ND	"	
1,4-Dichlorobenzene	"	"	"		1.00	ND	"	
Dichlorodifluoromethane	"	"	"		1.00	ND	"	
1,1-Dichloroethane	"	"	"		1.00	ND	"	
1,2-Dichloroethane	"	"	"		1.00	1.00	"	
1,1-Dichloroethene	"	"	"		1.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		1.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		1.00	ND	"	
1,2-Dichloropropane	"	"	"		1.00	ND	"	
1,3-Dichloropropane	"	"	"		1.00	ND	"	
2,2-Dichloropropane	"	"	"		1.00	ND	"	
1,1-Dichloropropene	"	"	"		1.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		1.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		1.00	ND	"	
Ethylbenzene	"	"	"		1.00	ND	"	
Freon 113	"	"	"		1.00	ND	"	





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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**Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-3 (continued)				P903407-03			Water	
Hexachlorobutadiene	9030598	3/24/99	3/24/99		1.00	ND	ug/l	
2-Hexanone	"	"	"		10.0	ND	"	
Isopropylbenzene	"	"	"		1.00	ND	"	
p-Isopropyltoluene	"	"	"		1.00	ND	"	
Methylene chloride	"	"	"		1.00	ND	"	
4-Methyl-2-pentanone	"	"	"		10.0	ND	"	
Methyl tert-butyl ether	"	"	"		1.00	ND	"	
Naphthalene	"	"	"		1.00	ND	"	
n-Propylbenzene	"	"	"		1.00	ND	"	
Styrene	"	"	"		1.00	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		1.00	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		1.00	ND	"	
Tetrachloroethene	"	"	"		1.00	ND	"	
Toluene	"	"	"		1.00	ND	"	
1,2,3-Trichlorobenzene	"	"	"		1.00	ND	"	
1,2,4-Trichlorobenzene	"	"	"		1.00	ND	"	
1,1,2-Trichloroethane	"	"	"		1.00	ND	"	
1,1,1-Trichloroethane	"	"	"		1.00	ND	"	
Trichloroethene	"	"	"		1.00	ND	"	
Trichlorofluoromethane	"	"	"		1.00	ND	"	
1,2,3-Trichloropropane	"	"	"		1.00	ND	"	
1,3,5-Trimethylbenzene	"	"	"		1.00	ND	"	
1,2,4-Trimethylbenzene	"	"	"		1.00	ND	"	
Vinyl acetate	"	"	"		20.0	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
m,p-Xylene	"	"	"		1.00	ND	"	
o-Xylene	"	"	"		1.00	ND	"	
Surrogate: Dibromofluoromethane	"	"	"	86.0-118		101	%	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	80.0-120		105	"	
Surrogate: Toluene-d8	"	"	"	88.0-110		97.4	"	
Surrogate: 4-Bromofluorobenzene	"	"	"	86.0-115		102	"	





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 Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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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*
Batch: 9030544			Date Prepared: 3/23/99			Extraction Method: EPA 5030 waters				
Blank			9030544-BLK1							
Gasoline	3/23/99			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		280	"	65.0-135	93.3			
Surrogate: 4-Bromofluorobenzene	"	300		301	"	65.0-135	100			
LCS			9030544-BS1							
Benzene	3/23/99	100		113	ug/l	65.0-135	113			
Toluene	"	100		108	"	65.0-135	108			
Ethylbenzene	"	100		99.7	"	65.0-135	99.7			
Xylenes (total)	"	300		313	"	65.0-135	104			
Surrogate: a,a,a-Trifluorotoluene	"	300		293	"	65.0-135	97.7			
LCS			9030544-BS2							
Gasoline	3/23/99	1000		1010	ug/l	65.0-135	101			
Surrogate: 4-Bromofluorobenzene	"	300		300	"	65.0-135	100			
Matrix Spike			9030544-MS1 P903508-03							
Benzene	3/23/99	100	ND	106	ug/l	65.0-135	106			
Toluene	"	100	ND	112	"	65.0-135	112			
Ethylbenzene	"	100	ND	95.0	"	65.0-135	95.0			
Xylenes (total)	"	300	ND	298	"	65.0-135	99.3			
Surrogate: a,a,a-Trifluorotoluene	"	300		274	"	65.0-135	91.3			
Matrix Spike			9030544-MS2 P903508-03							
Gasoline	3/23/99	1000	104	1160	ug/l	65.0-135	106			
Surrogate: 4-Bromofluorobenzene	"	300		296	"	65.0-135	98.7			
Matrix Spike Dup			9030544-MSD1 P903508-03							
Benzene	3/23/99	100	ND	116	ug/l	65.0-135	116	20.0	9.01	
Toluene	"	100	ND	123	"	65.0-135	123	20.0	9.36	
Ethylbenzene	"	100	ND	103	"	65.0-135	103	20.0	8.08	
Xylenes (total)	"	300	ND	324	"	65.0-135	108	20.0	8.39	
Surrogate: a,a,a-Trifluorotoluene	"	300		314	"	65.0-135	105			
Matrix Spike Dup			9030544-MSD2 P903508-03							
Gasoline	3/23/99	1000	104	1040	ug/l	65.0-135	93.6	20.0	12.4	





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FAX (707) 792-0342

Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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**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*
Matrix Spike Dup (continued)	9030544-MSD2	P903508-03								
<i>Surrogate: 4-Bromofluorobenzene</i>	3/23/99	300		270	ug/l	65.0-135	90.0			





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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Volatile Organic Compounds by EPA Method 8260B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Recov. Limits	RPD % Limit	RPD % Notes*
Batch: 9030598	Date Prepared: 3/24/99				Extraction Method: EPA 5030 waters			
Blank	9030598-BLK1							
Acetone	3/24/99			ND	ug/l	10.0		
Benzene	"			ND	"	1.00		
Bromobenzene	"			ND	"	1.00		
Bromochloromethane	"			ND	"	1.00		
Bromodichloromethane	"			ND	"	1.00		
Bromoform	"			ND	"	1.00		
Bromomethane	"			ND	"	1.00		
2-Butanone	"			ND	"	10.0		
n-Butylbenzene	"			ND	"	1.00		
sec-Butylbenzene	"			ND	"	1.00		
tert-Butylbenzene	"			ND	"	1.00		
Carbon disulfide	"			ND	"	10.0		
Carbon tetrachloride	"			ND	"	1.00		
Chlorobenzene	"			ND	"	1.00		
Chloroethane	"			ND	"	1.00		
2-Chloroethylvinyl ether	"			ND	"	10.0		
Chloroform	"			ND	"	1.00		
Chloromethane	"			ND	"	1.00		
2-Chlorotoluene	"			ND	"	1.00		
4-Chlorotoluene	"			ND	"	1.00		
Dibromochloromethane	"			ND	"	1.00		
1,2-Dibromo-3-chloropropane	"			ND	"	1.00		
1,2-Dibromoethane (EDB)	"			ND	"	1.00		
Dibromomethane	"			ND	"	1.00		
1,2-Dichlorobenzene	"			ND	"	1.00		
1,3-Dichlorobenzene	"			ND	"	1.00		
1,4-Dichlorobenzene	"			ND	"	1.00		
Dichlorodifluoromethane	"			ND	"	1.00		
1,1-Dichloroethane	"			ND	"	1.00		
1,2-Dichloroethane	"			ND	"	1.00		
1,1-Dichloroethene	"			ND	"	1.00		
cis-1,2-Dichloroethene	"			ND	"	1.00		
trans-1,2-Dichloroethene	"			ND	"	1.00		
1,2-Dichloropropane	"			ND	"	1.00		
1,3-Dichloropropane	"			ND	"	1.00		
2,2-Dichloropropane	"			ND	"	1.00		
1,1-Dichloropropene	"			ND	"	1.00		
cis-1,3-Dichloropropene	"			ND	"	1.00		
trans-1,3-Dichloropropene	"			ND	"	1.00		
Ethylbenzene	"			ND	"	1.00		





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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**Volatile Organic Compounds by EPA Method 8260B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	9030598-BLK1									
Freon 113	3/24/99			ND	ug/l	1.00				
Hexachlorobutadiene	"			ND	"	1.00				
2-Hexanone	"			ND	"	10.0				
Isopropylbenzene	"			ND	"	1.00				
p-Isopropyltoluene	"			ND	"	1.00				
Methylene chloride	"			ND	"	1.00				
4-Methyl-2-pentanone	"			ND	"	10.0				
Methyl tert-butyl ether	"			ND	"	1.00				
Naphthalene	"			ND	"	1.00				
n-Propylbenzene	"			ND	"	1.00				
Styrene	"			ND	"	1.00				
1,1,2,2-Tetrachloroethane	"			ND	"	1.00				
1,1,1,2-Tetrachloroethane	"			ND	"	1.00				
Tetrachloroethene	"			ND	"	1.00				
Toluene	"			ND	"	1.00				
1,2,3-Trichlorobenzene	"			ND	"	1.00				
1,2,4-Trichlorobenzene	"			ND	"	1.00				
1,1,2-Trichloroethane	"			ND	"	1.00				
1,1,1-Trichloroethane	"			ND	"	1.00				
Trichloroethene	"			ND	"	1.00				
Trichlorofluoromethane	"			ND	"	1.00				
1,2,3-Trichloropropane	"			ND	"	1.00				
1,3,5-Trimethylbenzene	"			ND	"	1.00				
1,2,4-Trimethylbenzene	"			ND	"	1.00				
Vinyl acetate	"			ND	"	20.0				
Vinyl chloride	"			ND	"	1.00				
m,p-Xylene	"			ND	"	1.00				
o-Xylene	"			ND	"	1.00				
Surrogate: Dibromofluoromethane	"	5.00		4.75	"	86.0-118	95.0			
Surrogate: 1,2-Dichloroethane-d4	"	5.00		4.75	"	80.0-120	95.0			
Surrogate: Toluene-d8	"	5.00		4.50	"	88.0-110	90.0			
Surrogate: 4-Bromofluorobenzene	"	5.00		4.52	"	86.0-115	90.4			

Blank	9030598-BLK2									
Acetone	3/25/99			ND	ug/l	10.0				
Benzene	"			ND	"	1.00				
Bromobenzene	"			ND	"	1.00				
Bromochloromethane	"			ND	"	1.00				
Bromodichloromethane	"			ND	"	1.00				
Bromoform	"			ND	"	1.00				
Bromomethane	"			ND	"	1.00				





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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Volatile Organic Compounds by EPA Method 8260B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	9030598-BLK2									
2-Butanone	3/25/99			ND	ug/l	10.0				
n-Butylbenzene	"			ND	"	1.00				
sec-Butylbenzene	"			ND	"	1.00				
tert-Butylbenzene	"			ND	"	1.00				
Carbon disulfide	"			ND	"	10.0				
Carbon tetrachloride	"			ND	"	1.00				
Chlorobenzene	"			ND	"	1.00				
Chloroethane	"			ND	"	1.00				
2-Chloroethylvinyl ether	"			ND	"	10.0				
Chloroform	"			ND	"	1.00				
Chloromethane	"			ND	"	1.00				
2-Chlorotoluene	"			ND	"	1.00				
4-Chlorotoluene	"			ND	"	1.00				
Dibromochloromethane	"			ND	"	1.00				
1,2-Dibromo-3-chloropropane	"			ND	"	1.00				
1,2-Dibromoethane (EDB)	"			ND	"	1.00				
Dibromomethane	"			ND	"	1.00				
1,2-Dichlorobenzene	"			ND	"	1.00				
1,3-Dichlorobenzene	"			ND	"	1.00				
1,4-Dichlorobenzene	"			ND	"	1.00				
Dichlorodifluoromethane	"			ND	"	1.00				
1,1-Dichloroethane	"			ND	"	1.00				
1,2-Dichloroethane	"			ND	"	1.00				
1,1-Dichloroethene	"			ND	"	1.00				
cis-1,2-Dichloroethene	"			ND	"	1.00				
trans-1,2-Dichloroethene	"			ND	"	1.00				
1,2-Dichloropropane	"			ND	"	1.00				
1,3-Dichloropropane	"			ND	"	1.00				
2,2-Dichloropropane	"			ND	"	1.00				
1,1-Dichloropropene	"			ND	"	1.00				
cis-1,3-Dichloropropene	"			ND	"	1.00				
trans-1,3-Dichloropropene	"			ND	"	1.00				
Ethylbenzene	"			ND	"	1.00				
Freon 113	"			ND	"	1.00				
Hexachlorobutadiene	"			ND	"	1.00				
2-Hexanone	"			ND	"	10.0				
Isopropylbenzene	"			ND	"	1.00				
p-Isopropyltoluene	"			ND	"	1.00				
Methylene chloride	"			ND	"	1.00				
4-Methyl-2-pentanone	"			ND	"	10.0				
Methyl tert-butyl ether	"			ND	"	1.00				





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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**Volatile Organic Compounds by EPA Method 8260B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)										
9030598-BLK2										
Naphthalene	3/25/99			ND	ug/l	1.00				
n-Propylbenzene	"			ND	"	1.00				
Styrene	"			ND	"	1.00				
1,1,2,2-Tetrachloroethane	"			ND	"	1.00				
1,1,1,2-Tetrachloroethane	"			ND	"	1.00				
Tetrachloroethene	"			ND	"	1.00				
Toluene	"			ND	"	1.00				
1,2,3-Trichlorobenzene	"			ND	"	1.00				
1,2,4-Trichlorobenzene	"			ND	"	1.00				
1,1,2-Trichloroethane	"			ND	"	1.00				
1,1,1-Trichloroethane	"			ND	"	1.00				
Trichloroethene	"			ND	"	1.00				
Trichlorofluoromethane	"			ND	"	1.00				
1,2,3-Trichloropropane	"			ND	"	1.00				
1,3,5-Trimethylbenzene	"			ND	"	1.00				
1,2,4-Trimethylbenzene	"			ND	"	1.00				
Vinyl acetate	"			ND	"	20.0				
Vinyl chloride	"			ND	"	1.00				
m,p-Xylene	"			ND	"	1.00				
o-Xylene	"			ND	"	1.00				
Surrogate: Dibromofluoromethane	"	5.00	4.84	"	"	86.0-118	96.8			
Surrogate: 1,2-Dichloroethane-d4	"	5.00	4.91	"	"	80.0-120	98.2			
Surrogate: Toluene-d8	"	5.00	4.89	"	"	88.0-110	97.8			
Surrogate: 4-Bromofluorobenzene	"	5.00	5.00	"	"	86.0-115	100			
LCS										
9030598-BS1										
Benzene	3/24/99	5.00	4.58	"	ug/l	88.0-124	91.6			
Chlorobenzene	"	5.00	4.60	"	"	88.0-117	92.0			
1,1-Dichloroethene	"	5.00	4.99	"	"	79.0-133	99.8			
Toluene	"	5.00	4.64	"	"	88.0-122	92.8			
Trichloroethene	"	5.00	4.67	"	"	85.0-117	93.4			
Surrogate: Dibromofluoromethane	"	5.00	4.90	"	"	86.0-118	98.0			
Surrogate: 1,2-Dichloroethane-d4	"	5.00	4.98	"	"	80.0-120	99.6			
Surrogate: Toluene-d8	"	5.00	4.71	"	"	88.0-110	94.2			
Surrogate: 4-Bromofluorobenzene	"	5.00	4.91	"	"	86.0-115	98.2			
LCS										
9030598-BS2										
Benzene	3/25/99	5.00	4.78	"	ug/l	79.7-114	95.6			
Chlorobenzene	"	5.00	4.64	"	"	80.5-114	92.8			
1,1-Dichloroethene	"	5.00	4.96	"	"	76.9-117	99.2			
Toluene	"	5.00	4.71	"	"	79.8-113	94.2			





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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**Volatile Organic Compounds by EPA Method 8260B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD % Notes*
<u>LCS (continued)</u>		<u>9030598-BS2</u>							
Trichloroethene	3/25/99	5.00		4.64	ug/l	78.4-114	92.8		
Surrogate: Dibromofluoromethane	"	5.00		5.06	"	86.0-118	101		
Surrogate: 1,2-Dichloroethane-d4	"	5.00		5.30	"	80.0-120	106		
Surrogate: Toluene-d8	"	5.00		4.84	"	88.0-110	96.8		
Surrogate: 4-Bromofluorobenzene	"	5.00		5.00	"	86.0-115	100		
<u>Matrix Spike</u>		<u>9030598-MS1</u>	<u>P903618-02</u>						
Benzene	3/24/99	5.00	ND	4.67	ug/l	88.0-124	93.4		
Chlorobenzene	"	5.00	ND	4.62	"	88.0-117	92.4		
1,1-Dichloroethene	"	5.00	ND	5.12	"	79.0-133	102		
Toluene	"	5.00	ND	4.64	"	88.0-122	92.8		
Trichloroethene	"	5.00	ND	4.67	"	85.0-117	93.4		
Surrogate: Dibromofluoromethane	"	5.00		5.11	"	86.0-118	102		
Surrogate: 1,2-Dichloroethane-d4	"	5.00		5.22	"	80.0-120	104		
Surrogate: Toluene-d8	"	5.00		4.81	"	88.0-110	96.2		
Surrogate: 4-Bromofluorobenzene	"	5.00		4.84	"	86.0-115	96.8		
<u>Matrix Spike Dup</u>		<u>9030598-MSD1</u>	<u>P903618-02</u>						
Benzene	3/24/99	5.00	ND	4.66	ug/l	88.0-124	93.2	15.0	0.214
Chlorobenzene	"	5.00	ND	4.67	"	88.0-117	93.4	15.0	1.08
1,1-Dichloroethene	"	5.00	ND	5.10	"	79.0-133	102	15.0	0
Toluene	"	5.00	ND	4.72	"	88.0-122	94.4	15.0	1.71
Trichloroethene	"	5.00	ND	4.64	"	85.0-117	92.8	15.0	0.644
Surrogate: Dibromofluoromethane	"	5.00		5.02	"	86.0-118	100		
Surrogate: 1,2-Dichloroethane-d4	"	5.00		5.19	"	80.0-120	104		
Surrogate: Toluene-d8	"	5.00		4.88	"	88.0-110	97.6		
Surrogate: 4-Bromofluorobenzene	"	5.00		4.94	"	86.0-115	98.8		





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Chevron USA, Inc. Project Number: 9-9708/990311-K4 Project Manager: Christine Lillie	Sampled: 3/11/99 Received: 3/15/99 Reported: 3/31/99
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Notes and Definitions

#	Note
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- 1 Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
- 2 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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



Field Data Sheets

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>990311-K4</u>	Station #: <u>9-9708</u>
Sampler: <u>Mark</u>	Date: <u>3/11/99</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>20.16</u>	Depth to Water: <u>12.81</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: <u>Bailer</u> Disposable Bailer ← <u>Middleburg</u> Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> Disposable Bailer × Extraction Port Other: _____
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<u>1.1</u>	X	<u>3</u>	=	<u>3.3</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1246</u>	<u>63.6</u>	<u>7.6</u>	<u>1172</u>	<u>1.25</u>	
<u>1247</u>	<u>64.5</u>	<u>7.6</u>	<u>1135</u>	<u>2.50</u>	
<u>1248</u>	<u>64.9</u>	<u>7.5</u>	<u>1122</u>	<u>3.5</u>	

Did well dewater? Yes <input type="checkbox"/> <u>No</u> <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>3.5</u>
Sampling Time: <u>1250</u>	Sampling Date: <u>3/11</u>
Sample I.D.: <u>MW-1</u>	Laboratory: <u>Sequoia</u> CORE N. Creek Assoc. Labs
Analyzed for: <u>TPH-G BTEX MIBE</u> TPH-D Other:	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MIBE TPH-D Other:
D.O. (if req'd):	Pre-purge: <u>mg/L</u> Post-purge: <u>mg/L</u>
R.P. (if req'd):	Pre-purge: <u>mV</u> Post-purge: <u>mV</u>

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>990711-K4</u>	Station #: <u>9-9708</u>
Sampler: <u>Mark</u>	Date: <u>3/11/99</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>20.01</u>	Depth to Water: <u>11.03</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>RVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
<u>2"</u>	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.165

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

<u>1.4</u>	X	<u>3</u>	=	<u>4.2</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1313</u>	<u>65.7</u>	<u>7.4</u>	<u>1050</u>	<u>1.5</u>	<u>odd</u>
<u>1315</u>	<u>66.3</u>	<u>7.2</u>	<u>1058</u>	<u>3.0</u>	
<u>1317</u>	<u>66.5</u>	<u>7.2</u>	<u>1084</u>	<u>4.25</u>	

Did well dewater? Yes No Gallons actually evacuated: 4.25

Sampling Time: 1320 Sampling Date: 3/11

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: AVOC's

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: