



GETTLER - RYAN INC.

April 22, 1998

Job #6395.80

Mr. Phill Briggs
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

Re: First Quarter 1998 Groundwater Monitoring & Sampling Report
Chevron Service Station #9-9708
5910 MacArthur Boulevard
Oakland, California

Dear Mr. Briggs:

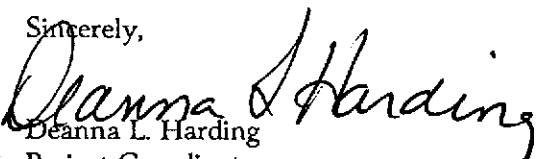
This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On March 18, 1998, field personnel were on-site to monitor and sample three wells (MW-1, MW-2 and MW-3) at the above referenced site.

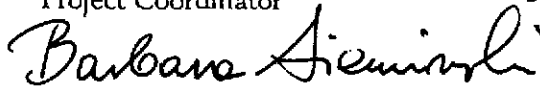
Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are presented in Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are presented in Table 1. The chain of custody document and laboratory analytical reports are attached.

Thank you for allowing Gettler-Ryan Inc. to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

Sincerely,

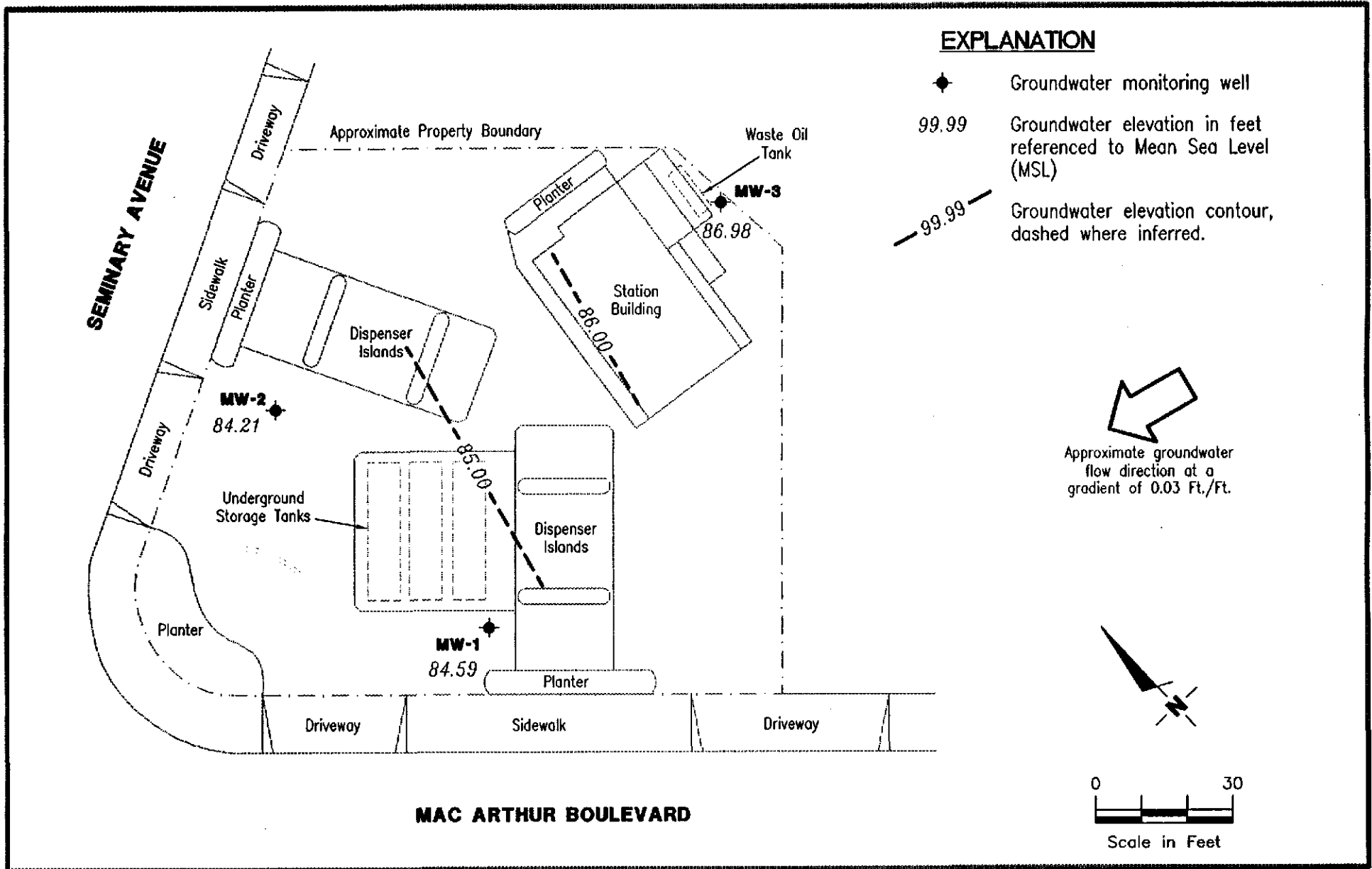

Deanna L. Harding
Project Coordinator


Barbara Sieminski
Project Geologist, R.G. No. 6676



DLH/bs/dlh
6395.QML

Figure 1: Potentiometric Map
Table 1: Water Level Data and Groundwater Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



Gottler - Ryan Inc.

6747 Sierra Ct., Suite J (925) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP
Chevron Service Station No. 9-9708
5910 Mac Arthur Boulevard
Oakland, California

FIGURE

1

JOB NUMBER
6395

REVIEWED BY

DATE
March 18, 1998

REVISED DATE

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-9708, 5910 MacArthur Blvd., Oakland, California

Well ID/ TOC(ft)	Date Sampled	Depth to Water (ft)	GWE (msl)	Product Thickness (ft)	←-----ppb----->						
					TPH(D)	TPH(G)	B	T	E	X	MTBE
MW-1 96.61 ¹	05/29/97	12.20	84.41	0.00	---	---	---	---	---	---	---
	06/04/97	12.21	84.40	0.00	---	380	58	1.2	5.4	40	85
	09/16/97	12.77	83.84	0.00	---	420 ³	120	<0.5	19	2.7	28
	12/17/97	11.18	85.43	0.00	---	210 ⁵	43	0.61	11	0.61	69
	03/18/98	12.02	84.59	0.00	---	210 ⁶	47	<0.50	8.2	<0.50	92
MW-2 96.91 ¹	05/29/97	13.06	83.85	0.00	---	---	---	---	---	---	---
	06/04/97	12.95	83.96	0.00	---	1,600	120	5.9	32	15	2,100
	09/16/97	12.99	83.92	0.00	---	1,100 ³	23	3.2	7.0	2.5	1,200
	12/17/97	12.18	84.73	0.00	---	7,100 ⁵	650	69	610	69	4,700/2,600 ⁶
	03/18/98	12.70	84.21	0.00	---	5,900 ⁹	250	<50	98	<50	12,000/7,100 ⁶
MW-3 97.86 ¹	05/29/97	11.45	86.41	0.00	---	---	---	---	---	---	---
	06/04/97 ²	11.28	86.58	0.00	1,200	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	09/16/97	12.19	85.67	0.00	2,700 ⁴	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	12/17/97	10.80	87.06	0.00	1,200 ⁷	<50	0.90	0.53	<0.50	<0.50	<2.5
	03/18/98	10.88	86.98	0.00	820 ⁷	<50	<0.50	<0.50	<0.50	<0.50	<2.5
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	<0.50	<0.50	<0.50	<0.50	<2.5
	03/18/98	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-9708, 5910 MacArthur Blvd., Oakland, California (continued)

EXPLANATION:

TOC = Top of casing elevation
(ft) = feet
GWE = Groundwater elevation
(msl) = Mean Sea Level
TPH(D) = Total Petroleum Hydrocarbons as diesel
TPH(G) = Total Petroleum Hydrocarbons as gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary-butyl ether
ppb = Parts per billion
-- = Not analyzed, not measured
ND = Not detected

ANALYTICAL METHODS:

EPA Method 8015 Modified for TPH(D)
EPA Method 8015 for TPH(G)
EPA Method 8020 for BTEX & MTBE
EPA Method 8260 for MTBE

NOTES:

- ¹ MW-1 through MW-3 were surveyed on June 18, 1997, by Virgil Chavez Land Surveying (PLS #6323). Benchmark Elevation = 95.88' (msl).
- ² 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 except 1,2-Dichloroethane was detected at 1 ppb.
- ³ Laboratory report indicates the concentration of MTBE has not been included in the reported concentration of TPH(G).
- ⁴ Laboratory report indicates the material present is qualitatively uncertain. Therefore, all material in the C9 to C22 range was quantitated against diesel fuel without respect to pattern. Chromatographic data indicates the presence of material, which is heavier than diesel fuel in this sample.
- ⁵ Laboratory report indicates gas & unidentified hydrocarbons > C6.
- ⁶ MTBE by EPA Method 8260.
- ⁷ Laboratory report indicates unidentified hydrocarbons C9-C24.
- ⁸ Laboratory report indicates unidentified hydrocarbons C6-C12.
- ⁹ Laboratory report indicates gas & unidentified hydrocarbons + C6-C12.



STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-9708
 Address: 5910 MacArthur Blvd.
 City: Oakland, CA

Job#: 6395.80
 Date: 3-18-9E
 Sampler: E.Cline

Well ID MW-1
 Well Diameter 2" in.
 Total Depth 20.2 ft.
 Depth to Water 12.02 ft.

Well Condition: okay

Hydrocarbon Thickness:	<u>0</u> in.	Amount Bailed (product/water):	<u>0</u> (gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

8.18 X VF 0.17 = 1.4 X 3 (case volume) = Estimated Purge Volume: 4.2 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 9:54
 Sampling Time: 10:03
 Purging Flow Rate: N/A gpm.
 Did well de-water? _____

Weather Conditions: clear warm sunny
 Water Color: clear Odor: None
 Sediment Description: None
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:57</u>	<u>1.4</u>	<u>6.90</u>	<u>925</u>	<u>20.0</u>	_____	_____	_____
<u>10:00</u>	<u>2.8</u>	<u>6.95</u>	<u>938</u>	<u>20.2</u>	_____	_____	_____
<u>10:03</u>	<u>4.2</u>	<u>6.97</u>	<u>940</u>	<u>20.2</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEI/GTEL Sequon</u>	<u>TPH-Gas/BTEX/MTBE</u>
<u>MW-</u>	<u>2 X Liter</u>	<u>Y</u>	<u>NONE</u>	<u>NEI/GTEL Sequon</u>	<u>TPH-Diesel</u>
_____	_____	_____	_____	_____	_____

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-9708

Job#: 6395.80

Address: 5910 MacArthur Blvd.

Date: 3-18-98

City: Oakland, CA

Sampler: E. Cline

Well ID: MW-2

Well Condition: okay

Well Diameter: 2" in.

Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth: 20.1 ft.

Depth to Water: 12.70 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

7.40 x VF 0.17 = 1.3 X 3 (case volume) = Estimated Purge Volume: 3.77 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 10:13

Weather Conditions: clear sunny warm

Sampling Time: 10:22

Water Color: clear Odor: Mild

Purging Flow Rate: N/A gpm.

Sediment Description: None

Did well de-water? No

If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ hos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:16</u>	<u>1.3</u>	<u>6.87</u>	<u>699</u>	<u>17.3</u>			
<u>10:19</u>	<u>2.6</u>	<u>6.93</u>	<u>723</u>	<u>17.3</u>			
<u>10:22</u>	<u>3.9</u>	<u>6.88</u>	<u>720</u>	<u>17.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEU/GTEL Sequon</u>	<u>TPH-Gas/BTEX/MTBE</u>
MW	<u>2 X Liter</u>	Y	<u>NONE</u>	NEU/GTEL	TPH-Gas/BTEX/MTBE

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-9708
 Address: 5910 MacArthur Blvd.
 City: Oakland, CA

Job#: 6395.80
 Date: 3-18-98
 Sampler: E. Cline

Well ID MW-3
 Well Diameter 2" in.
 Total Depth 20.1 ft.
 Depth to Water 10.88 ft.

Well Condition: okay

Hydrocarbon Thickness:	<u>0</u> in.	Amount Bailed (product/water):	<u>0</u> (gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

9.22 x VF 0.17 = 1.6 x 3 (case volume) = Estimated Purge Volume: 4.7 (gal.)

Purge Equipment: Disposable Bailer
Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 9:32
 Sampling Time: 9:41
 Purging Flow Rate: NA gpm.
 Did well de-water? NC

Weather Conditions: clear sunny & warm
 Water Color: clear Odor: none
 Sediment Description: none
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:35</u>	<u>1.6</u>	<u>6.63</u>	<u>936</u>	<u>19.6</u>	_____	_____	_____
<u>9:38</u>	<u>3.2</u>	<u>6.70</u>	<u>968</u>	<u>19.7</u>	_____	_____	_____
<u>9:41</u>	<u>4.8</u>	<u>6.70</u>	<u>967</u>	<u>19.9</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3 x 40m/VOA	Y	HCL	NEUGTEL Sequoia	TPH-Gas/BTEX/MTBE
MW-3	2 X Liter	Y	NONE	NEUGTEL Sequoia	TPH-Diesel

COMMENTS: _____

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

Chevron Facility Number #9-9708
 Facility Address 5910 MACARTHUR BLVD., OAKLAND, CA 6395
 Consultant Project Number _____
 Consultant Name Gattler-Ryan
 Address 6747 Sierra Ct, Ste J, Dublin 94568
 Project Contact (Name) Deanna Harding
 (Phone) 551-7555 (Fax Number) 551-7888

Chevron Contact (Name) MR. PHIL BRIGGS
 (Phone) (510) 842-9136
 Laboratory Name NEI/TEL SEQUIA Service Code: 7202790
 Laboratory Service Order #9064504-9105606
 Samples Collected by (Name) F. Clive
 Collection Date 3-18-98
 Signature _____

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analyses To Be Performed											Remarks					
								TPH G + BTEX w/MTBE (8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)									
TB-013		2	W	TB		1KL	Y	X																
NAW-3		5		G		1/4 gal		X	X															
NAW-1		3		G		1KL		X																
NAW-2		3		G		1KL		X																

DO NOT BILL
 TB-LB ANALYSIS
 Confirm highest
 hit of (8020)-
 MTBE by 8260.
 Remarks

ELP
 3/19

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>3-18-98/0800</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>3/19/98</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>Sequoia</u>	Date/Time <u>3/19/98</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>Sequoia</u>	Date/Time <u>3/19/98 9:48</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>Sequoia</u>	Date/Time <u>3-19-98</u>	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time <u>3/19/98 1234</u>

Turn Around Time (Circle Choice)
 24 Hrs. 48 Hrs. 5 Days 10 Days
 19 12 34
 As Contracted

COC-3.0MG/03 1/1/00



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-9708, Oakland Sample Descript: TB-LB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803B94-01	Sampled: 03/18/98 Received: 03/19/98 Analyzed: 03/23/98 Reported: 03/27/98
Attention: Deanna Harding		

QC Batch Number: GC032398802004A
Instrument ID: GCHP04

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:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	84

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

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-9708, Oakland
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803B94-03

Sampled: 03/18/98
Received: 03/19/98
Analyzed: 03/23/98
Reported: 03/27/98

QC Batch Number: GC032398802004A

Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	210
Methyl t-Butyl Ether	2.5	92
Benzene	0.50	47
Toluene	0.50	N.D.
Ethyl Benzene	0.50	8.2
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	78

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-9708, Oakland Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803B94-04	Sampled: 03/18/98 Received: 03/19/98 Analyzed: 03/23/98 Reported: 03/27/98
Attention: Deanna Harding		

QC Batch Number: GC032398802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	5900
Methyl t-Butyl Ether	250	12000
Benzene	50	250
Toluene	50	N.D.
Ethyl Benzene	50	98
Xylenes (Total)	50	N.D.
Chromatogram Pattern: Gas & Unidentified HC		+ C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	83

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

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-9708, Oakland Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9803B94-04	Sampled: 03/18/98 Received: 03/19/98 Analyzed: 03/23/98 Reported: 03/27/98
---	--	---

QC Batch Number: MS0323988260S1A

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	100	7100
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76 114	88
Toluene-d8	88 110	98
4-Bromofluorobenzene	86 115	98

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager





Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-9708, Oakland Sample Descript: MW-3 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9803B94-02	Sampled: 03/18/98 Received: 03/19/98 Extracted: 03/20/98 Analyzed: 03/26/98 Reported: 03/27/98
Attention: Deanna Harding		

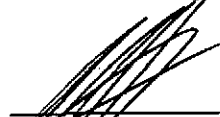
QC Batch Number: GC0320980HBPEXZ
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	820 Unid.-HC
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	117

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

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-9708, Oakland Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803B94-02	Sampled: 03/18/98 Received: 03/19/98 Analyzed: 03/23/98 Reported: 03/27/98
Attention: Deanna Harding		

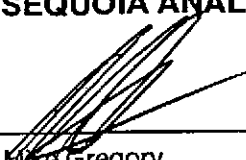
QC Batch Number: GC032398802004A
Instrument ID: GCHP04

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:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	79

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

SEQUOIA ANALYTICAL - ELAP #1210



 Mike Gregory
 Project Manager



Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Proj. ID: Chevron 9-9708, Oakland
Lab Proj. ID: 9803B94

Received: 03/19/98
Reported: 03/27/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 12 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPGBMW: Sample 9803B94-04 was diluted 100-fold.

SEQUOIA ANALYTICAL


Mike Gregory
Project Manager

Chromatogram

Sample Name : DW9803B94-2 (500:1)

FileName : S:\GHP_05\0329\326A014.raw

Method : TPH05A

Start Time : 0.00 min

Scale Factor: 0.0

End Time : 33.65 min

Plot Offset: 0 mV

Sample #: MW-3

Date : 3/26/98 19:48

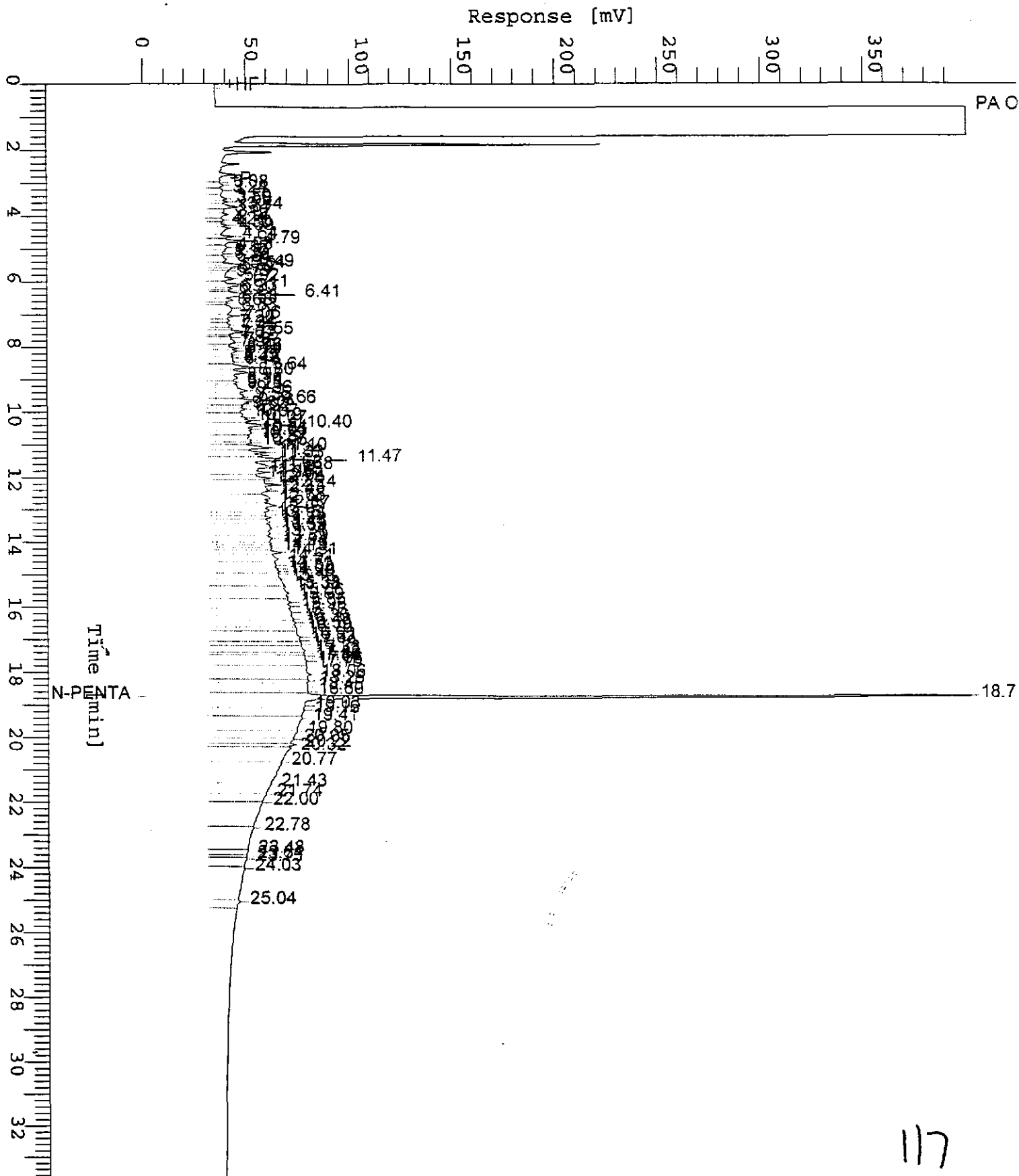
Time of Injection: 3/26/98 19:14

Low Point : 0.00 mV

Plot Scale: 400.0 mV

Page 1 of 1

High Point : 400.00 mV



117



Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 9-9708, Oakland
Matrix: Liquid

Work Order #: 9803B94 -01-04

Reported: Mar 30, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC032398802004A	GC032398802004A	GC032398802004A	GC032398802004A	GC032398802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	S.L.	S.L.	S.L.	S.L.	S.L.
MS/MSD #:	98030502	98030502	98030502	98030502	-
Sample Conc.:	47	N.D.	8.2	N.D.	-
Prepared Date:	3/23/98	3/23/98	3/23/98	3/23/98	-
Analyzed Date:	3/23/98	3/23/98	3/23/98	3/23/98	-
Instrument I.D.#:	GC4	GC4	GC4	GC4	-
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	-
Result:	67	18	28	57	-
MS % Recovery:	100	90	98	95	-
Dup. Result:	65	18	28	58	-
MSD % Recov.:	91	90	98	97	-
RPD:	3.0	0.0	0.0	1.7	-
RPD Limit:	0-25	0-25	0-25	0-25	-

LCS #:	LCS032398	LCS032398	LCS032398	LCS032398	LCS032398
Prepared Date:	3/23/98	3/23/98	3/23/98	3/23/98	3/23/98
Analyzed Date:	3/23/98	3/23/98	3/23/98	3/23/98	3/23/98
Instrument I.D.#:	GC4	GC4	GC4	GC4	GC4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
LCS Result:	17	17	18	53	440
LCS % Recov.:	85	85	90	88	88

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

SEQUOIA ANALYTICAL
Elap #2142

Mike Gregory
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

9803B94.GET <1>



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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J Dublin, CA 94568 Attention: Deanna Harding	Client Project ID: Chevron 9-9708, Oakland Matrix: Liquid Work Order #: 9803B94-04	Reported: Mar 30, 1998
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QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-benzene
QC Batch#:	MS0323988260S1A	MS0323988260S1A	MS0323988260S1A	MS0323988260S1A	MS0323988260S1A
Analy. Method:	EPA 8260	EPA 8260	EPA 8260	EPA 8260	EPA 8260
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

	S.L.	S.L.	S.L.	S.L.	S.L.
Analyst:	S.L.	S.L.	S.L.	S.L.	S.L.
MS/MSD #:	98030262	98030262	98030262	98030262	98030262
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/23/98	3/23/98	3/23/98	3/23/98	3/23/98
Analyzed Date:	3/23/98	3/23/98	3/23/98	3/23/98	3/23/98
Instrument I.D.#:	MS1	MS1	MS1	MS1	MS1
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L	25 µg/L	25 µg/L
Result:	26	24	25	25	25
MS % Recovery:	103	96	100	100	100
Dup. Result:	26	24	25	26	26
MSD % Recov.:	103	96	100	104	104
RPD:	0.0	0.0	0.0	3.9	3.9
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	LCS032398	LCS032398	LCS032398	LCS032398	LCS032398
Prepared Date:	3/23/98	3/23/98	3/23/98	3/23/98	3/23/98
Analyzed Date:	3/23/98	3/23/98	3/23/98	3/23/98	3/23/98
Instrument I.D.#:	MS1	MS1	MS1	MS1	MS1
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L	25 µg/L	25 µg/L
LCS Result:	27	24	25	26	25
LCS % Recov.:	108	96	100	103	100

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	65-135	70-130	70-130	70-130	70-130
Control Limits					

SEQUOIA ANALYTICAL
Elap #2142

Mike Gregory
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

9803B94.GET <2>

