

Chevron



Chevron

May 20, 1997

Chevron Products Company
6001 Bollinger Canyon Rd, Bldg L
PO Box 5004
San Ramon, CA 94583-0804

Ms. Madhulla Logan
Alameda County Dept. of Enviro. Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Site Assessment & Remediation
Phone (510) 842-9500
Fax (510) 842-8370

Re: Chevron Service Station 9-8341
3530 Macarthur Blvd. Oakland, CA

Dear, Ms. Logan,

Please find attached the "Second Quarter Groundwater Monitoring & Sampling Report" prepared by Gettler-Ryan Inc. dated May 14th, 1997. This report presents the results of the sampling event performed on April 14th, 1997.

The groundwater samples collected by Gettler-Ryan were analyzed for the presence of TPHG and BTEX constituents. The results obtained during this sampling event were consistent with historical data seen from previous sampling events at this site.

Chevron will continue with the current monitoring schedule (quarterly) in place for this site. If you have any questions or comments regarding this site, please call. I can be reached by phone at (510) 842-9449 or by fax at (510) 842-8370.

Sincerely,

Tammy L. Hodge
Groundwater Coordinator
Site Assessment and Remediation

*Date
Sampled
ML*

cc:

- * Mr. Richard Hiatt, RWQCB-Bay Region
2101 Webster St. Suite 500, Oakland CA 94612
- * Ms. Violet Cargill, Chevron Property Development
- * Chevron File 98341

ENVIRONMENTAL
PROTECTION
97 MAY 23 PM 3:51





GETTLER - RYAN INC.

May 14, 1997

Job #6346.80

Ms. Tammy Hodge
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

Re: Second Quarter Groundwater Monitoring & Sampling Report
Chevron Service Station #9-8341
3530 MacArthur Boulevard
Oakland, California

Dear Ms. Hodge:

This report documents the quarterly groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On April 14, 1997, field personnel were on-site to monitor and sample three wells (MW-1, MW-2 and MW-3) at Chevron Service Station #9-8341 located at 3530 MacArthur Boulevard in Oakland, California.

Static groundwater levels were measured on April 14, 1997. 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.

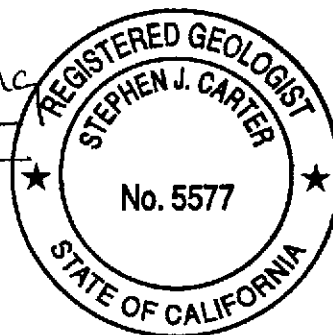
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are presented in Table 1. The chain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

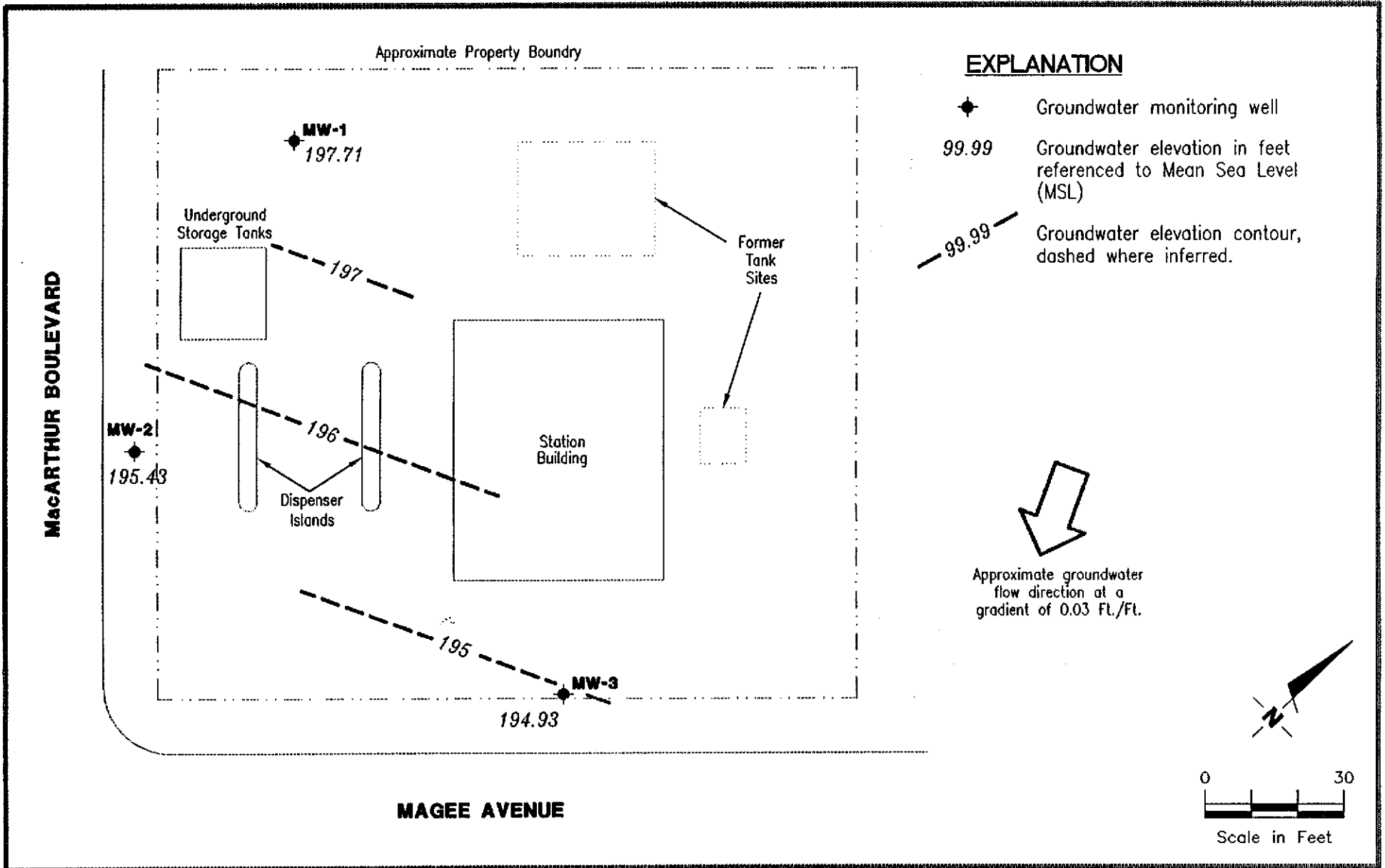
Deanna L. Harding
Deanna L. Harding
Project Coordinator

Stephen J. Carter
Stephen J. Carter
Senior Geologist, R.G. No. 5577



DLH/SJC/dlh
6346.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



Gettler - Ryan Inc.

6747 Sierra Ct., Suite J (510) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP
Chevron Service Station No. 9-8341
3530 MacArthur Boulevard
Oakland, California

FIGURE

1

JOB NUMBER
6346

REVIEWED BY

DATE
April 14, 1997

REVISED DATE



Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-8341, 3530 MacArthur Blvd., Oakland, California

Well ID/ TOC	Date Sampled	Depth to Water (ft)	GWE (msl)	Product Thickness (ft)	ppb					
					TPH(G)	B	T	E	X	MTBE
MW-1 202.47	04/04/96	3.82	198.65	---	<50	<0.50	<0.50	<0.50	<0.50	ND
	11/01/96	5.02	197.45	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	01/06/97	2.75	199.72	0.00	<50	<0.50	<0.50	<0.50	<0.50	14
	04/14/97	4.76	197.71	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-2 198.88	04/04/96	2.81	196.07	---	<50	<0.50	<0.50	<0.50	<0.50	6,100
	11/01/96	3.61	195.27	0.00	<500	<5.0	<5.0	<5.0	<5.0	2,600
	01/06/97	2.91	195.97	0.00	<2,000	31	<20	<20	<20	4,000
	04/14/97	3.45	195.43	0.00	<2,000	<20	<20	<20	<20	5,100/5,800 ¹
MW-3 199.10	04/04/96	3.88	195.22	---	<50	<0.50	<0.50	<0.50	<0.50	ND
	11/01/96	4.19	194.91	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	01/06/97	3.81	195.29	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	04/14/97	4.17	194.93	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
Trip Blank	11/01/96	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	01/06/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	04/14/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5

Explanation:

TOC = Top of casing elevation
 (ft) = feet
 GWE = Groundwater elevation
 (msl) = Measurement referenced relative to mean sea level
 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 at or above laboratory detection limit

Notes:

Water level elevation data and laboratory analytical results prior to November 1, 1996, were provided by Chevron Products Company.

¹ MTBE by EPA Method 8260.



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 SAMPLING FIELD DATA SHEET

SAMPLER Clyde Galantine DATE 4/14/97
 ADDRESS 3530 MacArthur JOB # 6346.85
 CITY Oakland CA SS# 9-8341

Well ID MW-1 Well Condition OK
 Well Location Description _____

Well Diameter 2 in Hydrocarbon Thickness _____
 Total Depth 27.14 ft
 Depth to Liquid 4.76 ~~4.82~~ ft
 # of casing Volume 2238 x 0.17 x (VF) 3 #Estimated 11.4 gal.
 Volume _____ x (VF) _____ #Estimated _____ gal.
 Purge Equipment stack pump Sampling Equipment disp bailer
 Did well dewater No If yes, Time _____ Volume _____

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

Starting Time 12:06 Purging Flow Rate 22.5 gpm.
 Sampling Time 12:15

Time	pH	Conductivity	Temperature	Volume
<u>12:06</u>	<u>6.99</u>	<u>543</u>	<u>16.8</u>	<u>2</u>
<u>12:07</u>	<u>7.04</u>	<u>541</u>	<u>16.0</u>	<u>4</u>
<u>12:09</u>	<u>7.00</u>	<u>538</u>	<u>15.7</u>	<u>8</u>
<u>12:10</u>	<u>6.99</u>	<u>543</u>	<u>15.7</u>	<u>12</u>
<u>12:15</u>	<u>7.08</u>	<u>539</u>	<u>16.1</u>	<u>Sample</u>

Weather Conditions clear
 Water Color: lt brown Odor: _____
 Sediment Description silt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-1</u>	<u>Von</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX</u> <u>MTBE</u>

Comments well pressurized -> ~.06 gain in ~1.5hr.



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Galantine DATE 4/14/97
 ADDRESS 3530 MacArthur JOB # 6346.85
 CITY Oakland CA SS# 9-8341

Well ID MW-2 Well Condition OK
 Well Location Description _____

Well Diameter 2 in Hydrocarbon Thickness _____
 Total Depth 33.20 ft
 Depth to Liquid 3.45 4.50 ft

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

of casing Volume 29.75 x 0.17 x (VF) 3 #Estimated 15.2 gal. purge Volume

Purge Equipment stack pump Sampling Equipment disp backer
 Did well dewater No If yes, Time _____ Volume _____

Starting Time 12:30 Purging Flow Rate 2.5 gpm.
 Sampling Time 12:40

Time	pH	Conductivity	Temperature	Volume
<u>12:30</u>	<u>6.99</u>	<u>677</u>	<u>16.8</u>	<u>2</u>
<u>12:32</u>	<u>7.04</u>	<u>678</u>	<u>16.6</u>	<u>S</u>
<u>12:34</u>	<u>7.00</u>	<u>698</u>	<u>16.0</u>	<u>W</u>
<u>12:36</u>	<u>7.06</u>	<u>684</u>	<u>16.3</u>	<u>15.5</u>
<u>12:40</u>	<u>6.90</u>	<u>685</u>	<u>16.6</u>	<u>Sample</u>

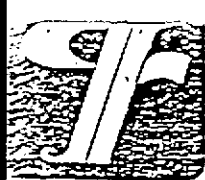
Weather Conditions clear, breezy
 Water Color: lt brown Odor: ?
 Sediment Description silt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-2</u>	<u>Voa</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, KATBE</u>

Comments well pressurized - H₂O rose 1.05' in ~ 2 hrs

3.45 @ 12:25



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Calantone DATE 4/14/97
 ADDRESS 3530 MacArthur JOB # 6346.85
 CITY Oakland CA SS# 9-8341

Well ID MW-3 Well Condition OK

Well Location Description

Well Diameter 2 in
 Total Depth 32.84 ft
 Depth to Liquid 4.17 ~~4.54~~ ft
 # of casing Volume 28.67 ~~28.30~~ x all x(VF) 3 #Estimated ~~14.4~~ gal.
 purge Volume 14.6

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

Purge Equipment stack pump Sampling Equipment disp bailer
 Did well dewater No If yes, Time _____ Volume _____

Starting Time 11:38 Purging Flow Rate 2.5 gpm.
 Sampling Time 11:50

Time	pH	Conductivity	Temperature	Volume
<u>11:38</u>	<u>6.81</u>	<u>555</u>	<u>18.0</u>	<u>2</u>
<u>11:40</u>	<u>6.92</u>	<u>558</u>	<u>16.7</u>	<u>5</u>
<u>11:42</u>	<u>6.94</u>	<u>554</u>	<u>16.2</u>	<u>10</u>
<u>11:44</u>	<u>7.02</u>	<u>538</u>	<u>16.3</u>	<u>15</u>
<u>11:50</u>	<u>6.76</u>	<u>545</u>	<u>16.5</u>	<u>Sample</u>

Weather Conditions clear
 Water Color: brown Odor: _____
 Sediment Description silt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-3</u>	<u>Von</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX</u> <u>MTBE</u>

Comments well pressurized

4.37 10:45
 4.20 11:10
 11:17

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

Chevron Facility Number #9-8341
Facility Address 3530 MacArthur, Oakland, CA
Consultant Project Number 6346
Consultant Name Gettler-Ryan
Address 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name) Deanna Harding
(Phone) 551-7555 (Fax Number) 551-7888

Chevron Contact (Name) Ms. Tammy Hodge
(Phone) (510) 842-9449
Laboratory Name SEQUOIA Service Code: ZZ02790
Laboratory Service Order # 9022851
Samples Collected by (Name) *Clyde Galantine*
Collection Date *4/14/97*
Signature *Clyde Galantine*

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type C = Grab C = Composite D = Discrete	Time	Sample Preservation	Leak (Yes or No)	Analytes To Be Performed											DO NOT BILL TB-LB ANALYSIS confirm made By 8260 Remarks
								TPH Gas + BTEX w/MTE (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)				
MW-3	1	3	W	G	11:50 A		Y	X											
MW-1	2	3	I	I	12:15		↓	X											
MW-2	3	3	I	I	12:40		↓	X											
TBLB	4	2	↓	↓	-		↓	X											

9704880

APR 15 11 49

Relinquished By (Signature) <i>Clyde Galantine</i>	Organization G-R Inc.	Date/Time 4/14/97 13:45	Received By (Signature) <i>D. Harding</i>	Organization G-R Inc.	Date/Time 4/14/97 8:20	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted
Relinquished By (Signature) <i>D. Harding</i>	Organization G-R	Date/Time 4/15/97	Received By (Signature) <i>Stu Kempf</i>	Organization SEQ	Date/Time 4/15/97 9:55	
Relinquished By (Signature) <i>Stu Kempf</i>	Organization SEQ	Date/Time 4/15/97 11:49	Received For Laboratory By (Signature) <i>Maria Gusler</i>		Date/Time 4/15/97 11:49	

COC-3.DWG/03 01/mgr



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

Client Proj. ID: Chevron 9-8341, Oakland
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9704880-02

Sampled: 04/14/97
Received: 04/15/97
Analyzed: 04/19/97
Reported: 04/29/97

QC Batch Number: GC041997BTEX18A
Instrument ID: GCHP18

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	92

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 G Dublin, CA 94568	Client Proj. ID: Chevron 9-8341, Oakland Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9704880-03	Sampled: 04/14/97 Received: 04/15/97 Analyzed: 04/22/97 Reported: 04/29/97
Attention: Deanna Harding		


QC Batch Number: GC042297BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2000	N.D.
Methyl t-Butyl Ether	100	5100
Benzene	20	N.D.
Toluene	20	N.D.
Ethyl Benzene	20	N.D.
Xylenes (Total)	20	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	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 G Dublin, CA 94568	Client Proj. ID: Chevron 9-8341, Oakland Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9704880-03	Sampled: 04/14/97 Received: 04/15/97 Analyzed: 04/25/97 Reported: 04/29/97
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QC Batch Number: MS042197MTBEH6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	100	5800
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76 114	101

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 G Dublin, CA 94568	Client Proj. ID: Chevron 9-8341, Oakland Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9704880-01	Sampled: 04/14/97 Received: 04/15/97 Analyzed: 04/21/97 Reported: 04/29/97
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QC Batch Number: GC042197BTEX01A
Instrument ID: GCHP01

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	121

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 G Dublin, CA 94568	Client Proj. ID: Chevron 9-8341, Oakland Sample Descript: TB-LB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9704880-04	Sampled: Received: 04/15/97 Analyzed: 04/21/97 Reported: 04/29/97
Attention: Deanna Harding		

QC Batch Number: GC042197BTEX01A
Instrument ID: GCHP01


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	113

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 G
Dublin, CA 94568
Attention: Deanna Harding

Client Proj. ID: Chevron 9-8341, Oakland
Lab Proj. ID: 9704880

Received: 04/15/97
Reported: 04/29/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 11 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPGBMW: Sample 9704880-03 was diluted 40-fold.

SEQUOIA ANALYTICAL



Mike Gregory
Project Manager



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

Client Project ID: Chevron 9-8341, Oakland
Matrix: Liquid

Work Order #: 9704880 01, 04

Reported: Apr 29, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC042197BTEX01A	GC042197BTEX01A	GC042197BTEX01A	GC042197BTEX01A	GC042197BTEX01A
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:	J. Heider	J. Heider	J. Heider	J. Heider	J. Heider
MS/MSD #:	970487301	970487301	970487301	970487301	970487301
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97
Analyzed Date:	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	13	12	12	36	68
MS % Recovery:	130	120	120	120	113
Dup. Result:	11	11	11	32	61
MSD % Recov.:	110	110	110	107	102
RPD:	17	8.7	8.7	12	11
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK042197BSA	BLK042197BSA	BLK042197BSA	BLK042197BSA	BLK042197BSA
Prepared Date:	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97
Analyzed Date:	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	11	11	11	32	60
LCS % Recov.:	110	110	110	107	100

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					

Please Note:

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SEQUOIA ANALYTICAL

Gregory
Gregory
Project Manager

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

9704880.GET <1>



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

Client Project ID: Chevron 9-8341, Oakland
Matrix: Liquid

Work Order #: 9704880 02

Reported: Apr 29, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC041997BTEX18A	GC041997BTEX18A	GC041997BTEX18A	GC041997BTEX18A	GC041997BTEX18A
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:	J. Heider	J. Heider	J. Heider	J. Heider	J. Heider
MS/MSD #:	970466105	970466105	970466105	970466105	970466105
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97
Analyzed Date:	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.7	8.8	8.6	25	59
MS % Recovery:	87	88	86	83	98
Dup. Result:	8.9	8.9	8.8	26	58
MSD % Recov.:	89	89	88	87	97
RPD:	2.3	1.1	2.3	3.9	1.7
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK041997BSA	BLK041997BSA	BLK041997BSA	BLK041997BSA	BLK041997BSA
Prepared Date:	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97
Analyzed Date:	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.4	8.5	8.4	25	56
LCS % Recov.:	84	85	84	83	93

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

Mike Gregory
Project Manager

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9704880.GET <2>



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

Client Project ID: Chevron 9-8341, Oakland
Matrix: Liquid

Work Order #: 9704880 03

Reported: Apr 29, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC042297BTEX06A	GC042297BTEX06A	GC042297BTEX06A	GC042297BTEX06A	GC042297BTEX06A
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:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970487303	970487303	970487303	970487303	970487303
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97
Analyzed Date:	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.0	8.5	9.0	27	71
MS % Recovery:	80	85	90	90	118
Dup. Result:	8.6	9.1	9.7	29	76
MSD % Recov.:	86	91	97	97	127
RPD:	7.2	6.8	7.5	7.1	6.8
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK042297BSA	BLK042297BSA	BLK042297BSA	BLK042297BSA	BLK042297BSA
Prepared Date:	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97
Analyzed Date:	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.8	9.3	9.9	29	77
LCS % Recov.:	88	93	99	97	128

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

Mike Gregory
Project Manager

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9704880.GET <3>



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

Client Project ID: Chevron 9-8341, Oakland
Matrix: Liquid

Work Order #: 9704880 03

Reported: Apr 29, 1997

QUALITY CONTROL DATA REPORT

Analyte: MTBE

QC Batch#: MS042197MTBEH6A

Analy. Method: EPA 8260

Prep. Method:

Analyst: L. Zhu

MS/MSD #: 970458703

Sample Conc.: N.D.

Prepared Date: N.A.

Analyzed Date: 4/21/97

Instrument I.D.#: H6

Conc. Spiked: 50 µg/L

Result: 54

MS % Recovery: 108

Dup. Result: 53

MSD % Recov.: 106

RPD: 1.8

RPD Limit: 0-25

LCS #: VMB042597S

Prepared Date: 4/25/97

Analyzed Date: 4/25/97

Instrument I.D.#: H6

Conc. Spiked: 50 µg/L

LCS Result: 52

LCS % Recov.: 104

MS/MSD 60-140

LCS 70-130

Control Limits

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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9704880.GET <4>