5960 1042

Chevron

September 18, 1998

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 #9-8341
3530 MacArthur Blvd.
Oakland, California

Dear Mr. Peacock:

Enclosed is the Third Quarter Groundwater Monitoring Report for 1998 that was prepared by our consultant Gettler-Ryan Inc. for the above noted site. Ground water samples were collected and analyzed for TPH-g, BTEX and MtBE constituents and sampled quarterly.

The concentrations were below method detection limits for all constituents in monitoring wells MW-1 and MW-3. The benzene constituent decreased in monitoring well MW-2 from the previous sampling event to below method detection limits. The MtBE constituent continues to be detected only in monitoring well MW-2.

Depth to ground water varied from 9.02 feet to 10.21 feet below grade with a direction of flow southeasterly.

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. Chuck Headlee
RWQCB-San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Ms. Madhulla Logan
Alameda County Health Care Services
Division of Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Mr. Jim Perkins, R.G., C.E.M.
Pacific Environmental Group, Inc.
2025 Gateway Place, Suite 440
San Jose, CA 95110-1006

Mr. Bill Scudder, Chevron

GETTLER-RYAN INC.

September 2, 1998

Job #6346.80

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

Re: Third Quarter 1998 Groundwater Monitoring & Sampling Report
Chevron Service Station #9-8341
3530 MacArthur Boulevard
Oakland, California

Dear Ms. Hodge:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On July 29, 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,

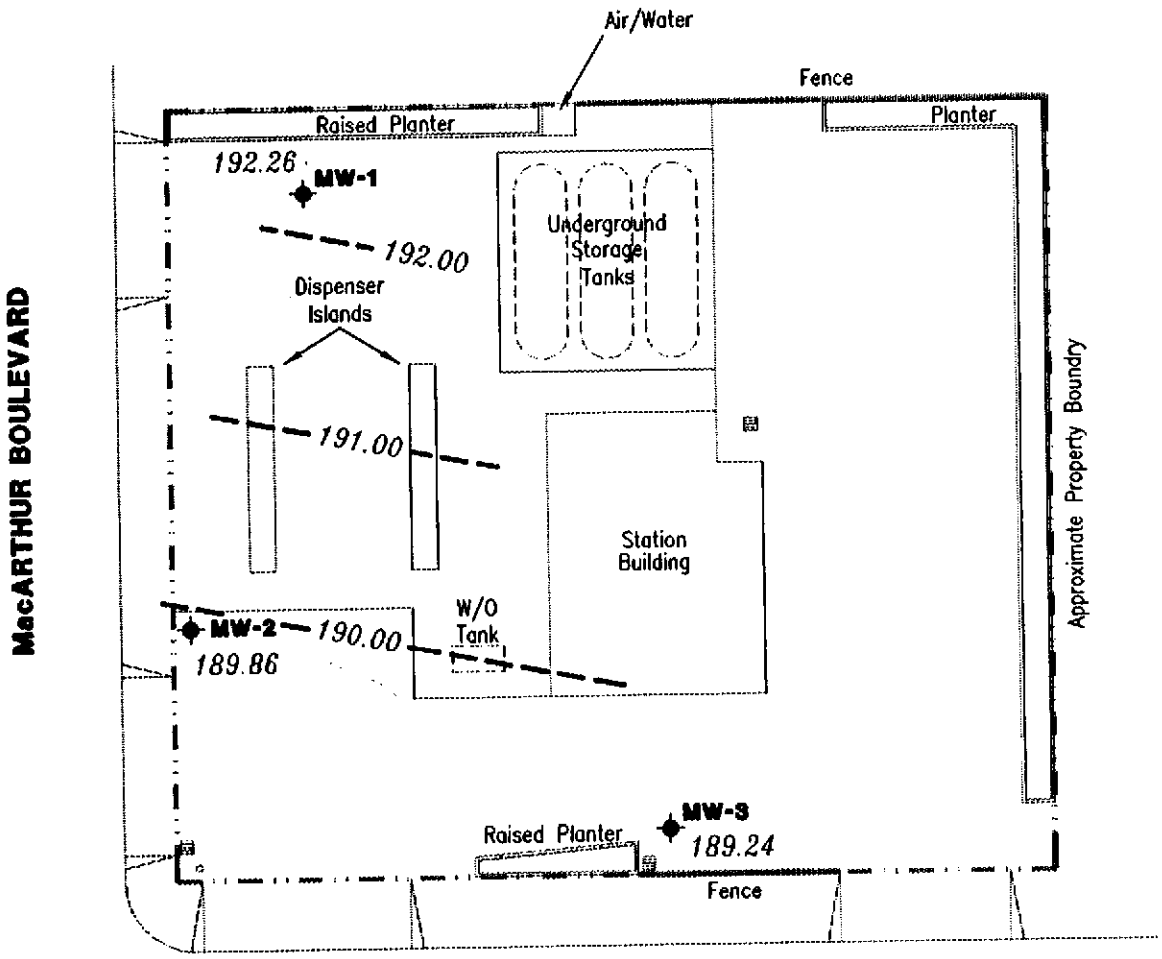
Deanna L. Harding
Project Coordinator

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

REGISTERED GEOLOGIST
BARBARA SIEMINSKI
No. 6676
STATE OF CALIFORNIA

DLH/SJC/scn
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



EXPLANATION

- Groundwater monitoring well
- 99.99 — Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 — Groundwater elevation contour, dashed where inferred.

Approximate groundwater flow direction at a gradient of 0.03 Ft./Ft.

0 30

Scale in Feet

FIGURE 1

Gettler - Ryan Inc.

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

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

JOB NUMBER 6346

REVIEWED BY

DATE July 29, 1998

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)	TPH(G)	B	T	E	X	MTBE
					<----------ppb---------->					
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
	07/17/97	5.75	196.72	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	10/29/97	5.50	196.97	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	02/04/98	2.67	199.80	0.00	<50	4.2	<0.50	<0.50	<0.50	94
	04/03/98	5.41	197.06	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/29/98	**10.21**	**192.26**	**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]
	07/17/97	3.90	194.98	0.00	<500	<5.0	<5.0	<5.0	<5.0	2,300/2,900[1]
	10/29/97	5.92	192.96	0.00	120[2]	12	<0.50	<0.50	<0.50	810/900[1]
	02/04/98	3,83	195.05	0.00	<1,000	<10	<10	<10	<10	2,100/2,800[1]
	04/03/98	7.33	191.55	0.00	<1,000	<10	<10	<10	<10	3,800/3,600[1]
	07/29/98	**9.02**	**189.86**	**0.00**	**120[3]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2,800/3,900[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
	07/17/97	4.18	194.92	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	10/29/97	5.20	193.90	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	02/04/98	4.39	194.71	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	04/03/98	3.32	195.78	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/29/98	**9.86**	**189.24**	**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
	07/17/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	10/29/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	02/04/98	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5

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

Well ID/ TOC	Date Sampled	Depth to Water (ft)	GWE (msl)	Product Thickness (ft)	TPH(G)	B	T	E	X	MTBE
					<----------ppb---------->					
Trip Blank	04/03/98	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
(cont)	**07/29/98**	**---**	**---**	**---**	**<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

ANALYTICAL METHODS:

EPA Method 8015 for TPH(G)
EPA Method 8020 for BTEX and MTBE
EPA Method 8260 for MTBE

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.
[2] Laboratory report indicates gas & unidentified hydrocarbons <C8.
[3] Laboratory report indicates discrete peak C6.

6346.tqm

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 # 9-8341 Job#: 6346.80

Address: 3530 MacArthur Blvd. Date: 7-29-98

City: Oakland, CA Sampler: F.Cline

Well ID MW- 1 Well Condition: Okay

Well Diameter 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 27.4 ft.

Depth to Water 10.12 ft.

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

17.28 X VF 0.17 = 2.9 X 3 (case volume) = Estimated Purge Volume: 8.8 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); Suction; Grundfos; Other:

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other:

Starting Time: 13:24 Weather Conditions: Cloudy cool

Sampling Time: 13:32 Water Color: Clear Odor: Non

Purging Flow Rate: 1.5 gpm. Sediment Description: N/a

Did well de-water? No If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1326	3	6.56	519	20.9			
1328	6	6.46	512	20.6			
1330	9	6.49	502	20.3			
1332	10	6.48	504	20.4			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 1	3 x 40m/VOA	Y	HCL	SEQUOIA	TPH-G/BTEX/MTBE

COMMENTS:

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-8341 Job#: 6346.80

Address: 3530 MacArthur Blvd. Date: 7-29-98

City: Oakland, CA Sampler: F.Cline

Well ID MW-2 Well Condition: Okay

Well Diameter 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 33.2 ft.

Depth to Water 9.02 ft.

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

24.18 X VF 0.17 = 4.1 X 3 (case volume) = Estimated Purge Volume: 12.3 (gal.)

Purge Equipment: Disposable Bailer / Bailer / (Stack) / Suction / Grundfos / Other:

Sampling Equipment: (Disposable Bailer) / ~~Bailer~~ / Pressure Bailer / Grab Sample / Other:

Starting Time: 13:40 Weather Conditions: Cloudy cool

Sampling Time: 1348 Water Color: Brown Odor: Mild

Purging Flow Rate: 2 gpm Sediment Description: Light Silt

Did well de-water? NC If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1342	4	6.41	673	22.3			
1344	8	6.41	680	22.1			
1346	12	6.40	681	22.0			
1348	13	6.41	680	22.1			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	3 x 40m/VOA	Y	HCL	SEQUOIA	TPH-G/BTEX/MTBE

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-8341 Job#: 6346.80

Address: 3530 MacArthur Blvd. Date: 7-29-98

City: Oakland, CA Sampler: F.Cline

Well ID MW-3 Well Condition: okay

Well Diameter 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 32.84 ft.

Depth to Water 9.86 ft.

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

22.98 X VF 0.17 = 3.9 X 3 (case volume) = Estimated Purge Volume: 11.7 (gal.)

Purge Equipment: Disposable Bailer, Bailer, (Stack), Suction, Grundfos, Other:

Sampling Equipment: (Disposable Bailer), ~~Bailer~~, Pressure Bailer, Grab Sample, Other:

Starting Time: 1308 Weather Conditions: cloudy (cool)

Sampling Time: 1316 Water Color: clear Odor: None

Purging Flow Rate: 2 gpm. Sediment Description: N/a

Did well de-water? No If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1310	4	7.18	521	21.5			
1312	8	6.64	531	21.5			
1314	12	6.55	508	21.1			
1316	13	6.53	510	21.2			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 x 40m/VOA	Y	HCL	SEQUOIA	TPH-G/BTEX/MTBE

COMMENTS: _____

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

Chain-of-Custody-Record

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) E. Cline
Collection Date 7-29-98
Signature

Analyses To Be Performed 9807H62

DO NOT BILL TB-LB ANALYSIS

Confirm Highest hit of 8020 w/the by 8260 - Thanks

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	TPH Gas + BTEX w/MTBE (8016)	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)					Remarks
TB-LB	1	2	W	TB	—	HCl	Y	X												
MW-3	2	3		G	1346			X												
MW-1	3	3			1332			X												
MW-2	4	3			1348			X												

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	G-R Inc.	7-30-98/1500	D. Harding	G-R Inc.	7/30/98
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
D. Harding	G-R	7/30/98		Sequoia	7/30/98 1140
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
		7/30/98			7/31/98 1027

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

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

Attention: Deanna Harding

Client Proj. ID: Chevron 9-8341, Oakland
Sample Descript: TB-LB
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807H62-01

Sampled: 07/29/98
Received: 07/30/98
Analyzed: 08/04/98
Reported: 08/10/98

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	97

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

SEQUOIA ANALYTICAL - ELAP #1849

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-8341, Oakland
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807H62-03

Sampled: 07/29/98
Received: 07/30/98

Analyzed: 08/04/98
Reported: 08/10/98

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	97

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

SEQUOIA ANALYTICAL - ELAP #1849

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

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

Attention: Deanna Harding

Client Proj. ID: Chevron 9-8341, Oakland
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807H62-04

Sampled: 07/29/98
Received: 07/30/98

Analyzed: 08/04/98
Reported: 08/10/98

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**120**
Methyl t-Butyl Ether	**2.5**	**2800**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		**C6**
Discrete Peak		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	97

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

SEQUOIA ANALYTICAL - ELAP #1849

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

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

Attention: Deanna Harding

Client Proj. ID: Chevron 9-8341, Oakland
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: EPA 8260
Lab Number: 9807H62-04

Sampled: 07/29/98
Received: 07/30/98

Analyzed: 08/07/98
Reported: 08/10/98

QC Batch Number: MS080698MTBEH6B
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	40	3900

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

Sequoia Analytical

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

Attention: Deanna Harding

Client Proj. ID: Chevron 9-8341, Oakland
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807H62-02

Sampled: 07/29/98
Received: 07/30/98

Analyzed: 08/04/98
Reported: 08/10/98

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	97

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

SEQUOIA ANALYTICAL - ELAP #1849

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Attention: Deanna Harding	Client Proj. ID: Chevron 9-8341, Oakland Lab Proj. ID: 9807H62	Received: 07/30/98 Reported: 08/10/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 9 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

MTBE by 8260:
Sample 9807H62-04 was diluted 20-fold.

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Sequoia Analytical

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

Client Project ID: Chevron 9-8341, Oakland
Matrix: Liquid
Work Order #: 9807H62 -01-04
Reported: Aug 10, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	08V8035	08V8035	08V8035	08V8035
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	L. Hall	L. Hall	L. Hall	L. Hall
LCS/LCSD #:	LCS080498	LCS080498	LCS080498	LCS080498
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/4/98	8/4/98	8/4/98	8/4/98
Analyzed Date:	8/4/98	8/4/98	8/4/98	8/4/98
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	20 µg/L
Result:	19	19	19	20
LCS % Recovery:	95	95	95	100
Dup. Result:	19	19	19	20
LCSD % Recov.:	95	95	95	100
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-30	0-30	0-30	0-30

MS/MSD LCS Control Limits	80-120	80-120	80-120	80-120

SEQUOIA ANALYTICAL
Elap #1849

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

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Gettler Ryan/Geostrategies	Client Project ID:	Chevron 9-8341, Oakland	
6747 Sierra Court, Ste J	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9807H62-04	Reported: Aug 10, 1998

QUALITY CONTROL DATA REPORT

Analyte:	MTBE
QC Batch#:	MS080698MTBEH6B
Analy. Method:	EPA 8260
Prep. Method:	N.A.
Analyst:	L. Duong
MS/MSD #:	9807H8920
Sample Conc.:	N.D.
Prepared Date:	8/6/98
Analyzed Date:	8/6/98
Instrument I.D.#:	H6
Conc. Spiked:	50 µg/L
Result:	45
MS % Recovery:	90
Dup. Result:	46
MSD % Recov.:	92
RPD:	2.2
RPD Limit:	0-25

LCS #:	LCS080698
Prepared Date:	8/6/98
Analyzed Date:	8/6/98
Instrument I.D.#:	H6
Conc. Spiked:	50 µg/L
LCS Result:	45
LCS % Recov.:	90

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

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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