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ENVIRONMENTAL PROTECTION

98 MAY 21 AM 9:03

Chevron

May 18, 1998

Chevron Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 6004
San Ramon, CA 94583-0904

Marketing – Sales West
Phone 510 842-9500

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

Re: Former Chevron Service Station #9-0100
2428 Central Avenue, Alameda, California

Dear Mr. Peacock:

Enclosed is a copy of the Semi-Annual Groundwater Monitoring Report 1998 (First Quarter), that was prepared by our consultant Gettler-Ryan Inc. for the above noted site. Groundwater samples were analyzed for TPH-g, BTEX, and MtBE constituents.

The benzene constituent in monitoring well MW-1 increased from the previous sampling event, while remaining the same in well MW-2. In monitoring wells MW-3, MW-4, MW-5, and MW-6 the concentrations were below method detection levels for all constituents.

Ground water depth varied from 4.38 feet to 5.07 feet below grade with the direction of flow northeasterly.

A Risk Based Corrective Action (RBCA) plan was submitted and is currently under review along with an Addendum to the RBCA, by Ms. Madhulla Logan of your office. The results from this sampling event should not effect the findings in the submitted RBCA or Addendum. Therefore, Chevron continues to state that no additional investigation is warranted and the site appears to meet the RWQCB's Interim Guidance Criteria for a low risk groundwater case. The leak and source has been stopped and removed. The site has been adequately characterized and there is minimal impact to the groundwater. The plume is limited in area and is not migrating. With the sources removed, the groundwater will not be impacted further and natural attenuation will continue to occur.

Therefore, Chevron request that the wells be abandoned and the site closed.

The next sampling event is scheduled for September 1998, however, the response to the submitted RBCA may change this schedule. If you have any questions, call me at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

Cc. Ms. Bette Owen, Chevron

Mr. Robert Stahl
Stahl-Woolridge Investment Properties
2428 Central Avenue
Alameda, CA 94501
(Memo: Enclosed is copy of the RBCA and Addendum, and letter from Mahulla Logan, dated December 15, 1997 for your files.)

GETTLER-RYAN INC.

May 11, 1998

Job #5178.80

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

Re: Semi-Annual 1998 Groundwater Monitoring & Sampling Report
Former Chevron Service Station #9-0100
2428 Central Avenue
Alameda, CA

Dear Mr. Briggs:

This report documents the semi-annual groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On March 31, 1998, field personnel were on-site to monitor and sample six wells (MW-1 through MW-6) at the above mentioned 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. 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,

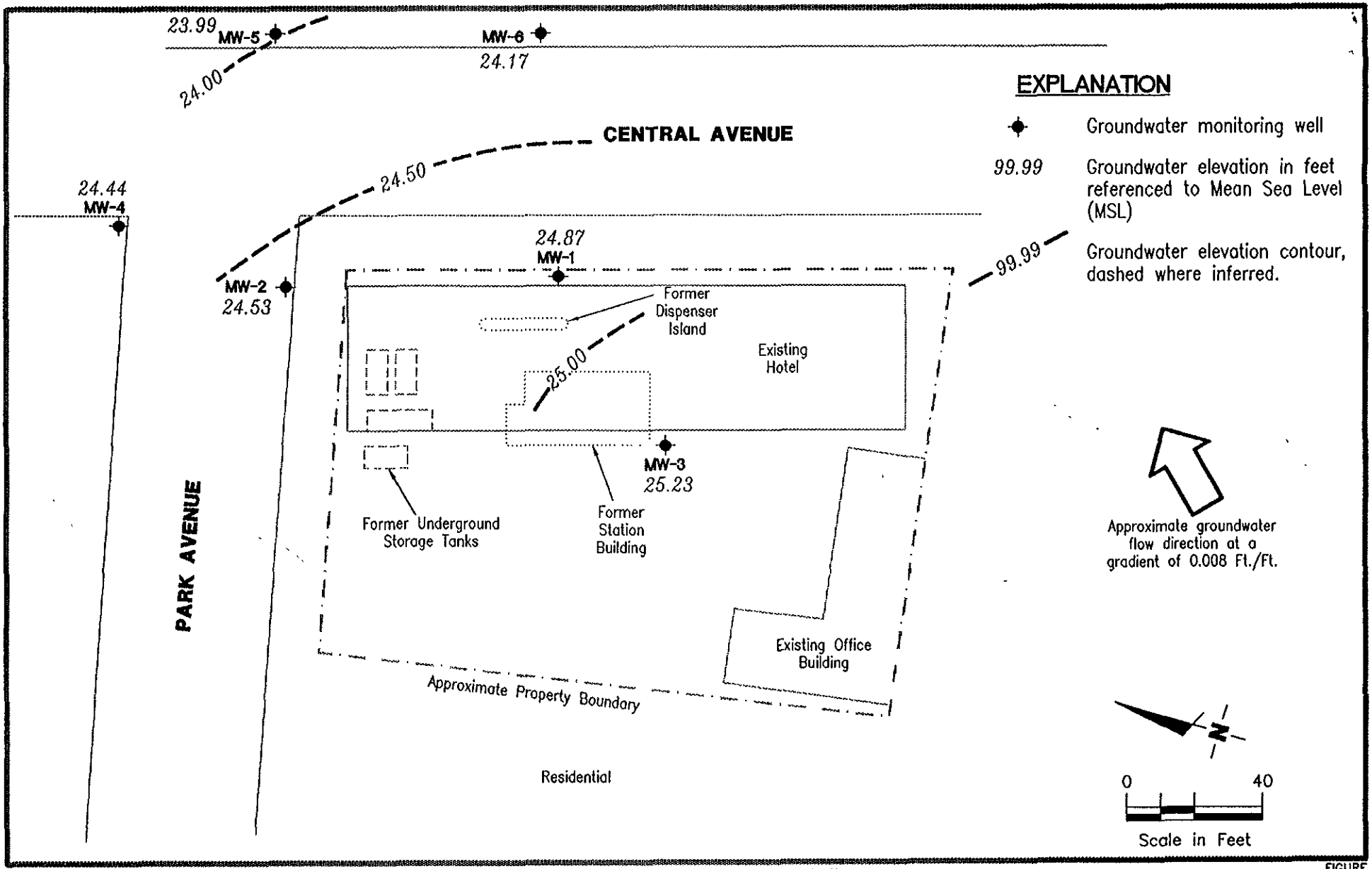
Deanna L. Harding
Project Coordinator

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

REGISTERED GEOLOGIST
BARBARA SIEMINSKI
No. 6676
STATE OF CALIFORNIA

DLH/PLS/dlh
5178.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 (925) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP
Former Chevron Service Station No. 9-0100
2428 Central Avenue
Alameda, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
5178		March 31, 1998	

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->				
MW-1/	3/10/94[1,2]	6.79	22.44	0	7,400	120	120	33	72	---
29.23	6/21/94	7.74	21.49	0	5,300	140	60	21	43	---
	9/26/94	8.94	20.29	0	9,500	<250[5]	<250[5]	<250[5]	<250[5]	---
	12/16/94	6.57	22.66	0	4,700	<0.5	46	15	48	---
	3/22/95	5.16	24.07	0	8,800	55	14	11	<10	---
	6/13/95	5.84	23.39	0	2,100	130	29	9.5	15	---
	9/15/95	7.65	21.58	0	8,100	110	26	6.0	13	---
	3/8/96	5.36	23.87	0	5,600	250	<5.0	<5.0	<5.0	60
29.25**	9/3/96	8.03	21.22	0	7,600	270	5.6	3.4	4.9	120
	3/5/97	5.33	23.92	0	5,000	130	5.2	3.7	5.7	31
	9/30/97	8.86	20.39	0	3,500	53	2.4	2.8	6.4	26
	3/31/98	**4.38**	**24.87**	**0**	**2,200**	**210**	**<5.0**	**<5.0**	**14**	**60**
MW-2/	3/10/94[2,3]	6.94	22.24	0	6,400	<5	64	58	17	---
29.18	6/21/94	7.89	21.29	0	1,800	23	12	6.9	32	---
	9/26/94	8.98	20.20	0	8,400	<100[5]	<100[5]	<100[5]	<100[5]	---
	12/16/94	6.65	22.53	0	2,300	<0.5	29	8.9	33	---
	3/22/95	5.15	24.03	0	1,500	0.6	4.5	<0.5	2.5	---
	6/13/95	6.06	23.12	0	880	<0.5	<0.5	2.2	10	---
	9/15/95	7.72	21.46	0	2,700	<0.5	17	4.8	13	---
	3/8/96	5.38	23.80	0	1,300	42	2.0	0.7	2.2	10
29.19**	9/3/96	8.14	21.05	0	2,700	64	4.6	1.6	4.6	35
	3/5/97	5.43	23.76	0	1,200	25	3.0	<0.5	3.6	<5.0
	9/30/97	9.01	20.18	0	2,400	12	1.0	1.4	5.8	6.9
	3/31/98	**4.66**	**24.53**	**0**	**490**	**12**	**1.2**	**<1.0**	**1.2**	**<5.0**
MW-3/	3/10/94[2,4]	7.30	22.79	0	<50	<0.5	<0.5	<0.5	<0.5	---
30.09	6/21/94	8.53	21.56	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/26/94	9.80	20.29	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/16/94	7.11	22.98	0	<50	<0.5	<0.5	<0.5	<0.5	---
	3/22/95	5.54	24.55	0	<50	<0.5	<0.5	<0.5	<0.5	---
	6/13/95	6.48	23.61	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/15/95	8.40	21.69	0	<50	<0.5	<0.5	<0.5	<0.5	---
	3/8/96	5.69	24.40	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
30.10**	9/3/96	8.80	21.30	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	5.89	24.21	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/30/97	9.68	20.42	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/31/98	**4.87**	**25.23**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
MW-4										
29.31**	9/3/96	8.32	20.99	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	5.80	23.51	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->				
MW-4	9/30/97	9.18	20.13	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
(cont)	**3/31/98**	**4.87**	**24.44**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
MW-5										
28.88**	9/3/96	7.90	20.98	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	5.70	23.18	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/30/97	8.73	20.15	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/31/98	**4.89**	**23.99**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
MW-6										
29.24**	9/3/96	7.98	21.26	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	5.61	23.63	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/30/97	8.88	20.36	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/31/98	**5.07**	**24.17**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
Trip Blank	3/10/94	---	---	---	<50	<0.5	0.7	<0.5	<0.5	---
TB-LB	6/21/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/26/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	12/16/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/22/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	6/13/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/15/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/8/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/3/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/30/97	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/31/98	**---**	**---**	**---**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California (continued)

EXPLANATION:

TOC = Top of casing elevation
(ft) = feet
DTW = Depth to water
GWE = Groundwater elevation
msl = Measurements referenced relative to mean sea level
TPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary butyl ether
EDB = Ethylene Dibromide
ppb = Parts per billion
--- = Not analyzed/Not applicable

ANALYTICAL METHODS:

EPA Method 8015/5030 for TPPH(G)
EPA Method 8020 for BTEX & MTBE

NOTES:

Water level elevation data and laboratory analytic results prior to March 22, 1995, were compiled from Quarterly Monitoring Reports prepared for Chevron by Sierra Environmental Services.

* Product thickness was measured on and after June 21,1994 with a MMC Flexi-Dip interface probe.

** Wells MW-1 through MW-6 were surveyed on September 17, 1996, by Virgil Chavez of Vallejo, California (PLS #6323).

[1] TPH(D) was also analyzed and detected at 840 ppb. However, chromatogram does not match typical diesel pattern.

[2] Organic lead and EDB were also analyzed but not detected at detection limits of 4 and 0.02 ppb, respectively.

[3] TPH(D) was also analyzed and detected at 920 ppb. However, chromatogram does not match typical diesel pattern.

[4] TPH(D) was also analyzed but not detected at detection limits of 50 ppb.

[5] Detection limits raised due to the dilution required by a high amount of foaming in the sample.

5178.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 # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 3-31-95

City: Alameda, CA Sampler: F.Cline

Well ID MW- 1 Well Condition: okay

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

Total Depth 9.7 ft.

Depth to Water 4.38 ft.

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

20.32 X VF 0.17 = 3.45 X 3 (case volume) = Estimated Purge Volume: 10.4 (gal.)

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

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

Starting Time: 14:08 Weather Conditions: Rainy cloudy cool

Sampling Time: 1416 Water Color: clear Odor: Mild

Purging Flow Rate: 2.0 gpm. Sediment Description: None

Did well de-water? Yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1410	4	6.97	950	16.0			
1412	8	6.98	923	16.6			
1414	12	6.99	930	16.8			
1416	13	6.98	928	16.7			

LABORATORY INFORMATION

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

COMMENTS:

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 3-29-12

City: Alameda, 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 23.75 ft.

Depth to Water 4.66 ft.

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

19.09 X VF 0.17 3.2 = 9.2 X 3 (case volume) = Estimated Purge Volume: 9.7 (gal.)

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

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

Starting Time: 12:15 Weather Conditions: Clear

Sampling Time: 12:23 Water Color: Clear Odor: n/a

Purging Flow Rate: 1.7 gpm. Sediment Description: Clear

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
12:17	3.4	6.75	773	18C			
12:19	6.8	6.83	759	18.1			
12:21	10.2	6.83	716	18.2			
12:23	11.6	6.83	719	18.1			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 2	3 x 40m/VOA	Y	HCL	~~NET/CTEL~~ SEQ.	TPH-Gas/BTEX/MTBE

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 3-31-99

City: Alameda, 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 24.15 ft.

Depth to Water 4.57 ft.

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

19.63 X VF 0.17 = 3.3 X 3 (case volume) = Estimated Purge Volume: 10.1 (gal.)

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

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

Starting Time: 11:57 Weather Conditions: clear warm

Sampling Time: 12:05 Water Color: Clear Odor: None

Purging Flow Rate: 2 gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:59	4	6.81	315	18.1			
12:01	8	6.91	310	18.2			
12:03	12	6.91	314	18.2			
12:05	13	6.91	312	18.2			

LABORATORY INFORMATION

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

COMMENTS:

9/97-fieldat.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility #9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 3-3-98

City: Alameda, CA Sampler: F.Cline

Well ID MW-4 Well Condition: okay

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

Total Depth 20 ft.

Depth to Water 4.87 ft.

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

15.13 X VF 0.17 = 2.6 X 3 (case volume) = Estimated Purge Volume: 8.7 (gal.)

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

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

Starting Time: 13:57 Weather Conditions: Rainy cloudy cool

Sampling Time: 1903 Water Color: clear Odor: None

Purging Flow Rate: 1.5 gpm. Sediment Description: None

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)
1357	3	6.79	826	17.4			
1401	6	6.91	824	17.9			
1403	9	6.58	825	17.9			
1405	10	6.56	823				

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	3 x 40m/VOA	Y	HCL	~~NET/STEL~~ SEQ.	TPH-Gas/BTEX/MTBE

COMMENTS: _____

9/97-fieldat.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 3-31-95

City: Alameda, CA Sampler: F.Cline

Well ID MW-5 Well Condition: okay

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

Total Depth 21 ft.

Depth to Water 4.89 ft.

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

(16.11) X VF 0.17 = 2.74 X 3 (case volume) = Estimated Purge Volume: 8 (gal.)

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

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

Starting Time: 13:45 Weather Conditions: Cloudy Rainy

Sampling Time: 1353 Water Color: Clear Odor: None

Purging Flow Rate: 1.5 gpm. Sediment Description: None

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)
13:47	3	6.95	82	18.4			
1349	6	6.93	1173	18.5			
1351	9	6.98	1183	18.3			
13:53	10	6.99	1150	18.4			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3 x 40m/VOA	Y	HCL	~~NEW/CTEL~~ SEQ.	TPH-Gas/BTEX/MTBE

COMMENTS:

9/97-fieldat.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 3-31-9E

City: Alameda, CA Sampler: F.Cline

Well ID MW-6 Well Condition: clay

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

Total Depth 21 ft.

Depth to Water 5.07 ft.

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

15.93 X VF 0.17 = 2.7 X 3 (case volume) = Estimated Purge Volume: 8.13 (gal.)

Purge Equipment:
Disposable Bailer
Bailer
(Stack)
~~Suction~~
Grundfos
Other: ____

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

Starting Time: 13:34 Weather Conditions: Rainy cool

Sampling Time: 13:42 Water Color: Clear Odor: None

Purging Flow Rate: 1.5 gpm. Sediment Description: None.

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)
13:36	3	7.20	113	17.9			
13:38	6	7.06	114	18.0			
13:40	9	7.08	111	18.6			
13:42	10	7.07	112	18.7			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 6 /	3 x 40m/VOA	Y	HCL	~~NEI/GTEL~~ SEQ.	TPH-Gas/BTEX/MTBE

COMMENTS: ____

9/97-fieldat.frm

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 #9-0100
Facility Address 2428 CENTRAL AVENUE, ALAMEDA, CA
Consultant Project Number 5178
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) Mr. Phil Briggs
(Phone) (510) 842-9136
Laboratory Name ~~GTEL~~ SEQ. Service Code: ZZ02790
Laboratory Service Order # ~~9033185~~ 9105596
Samples Collected by (Name) F.C./mc
Collection Date 3-31-98
Signature [signature]

Analyses To Be Performed

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 (8015) (8020)	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		2	W	TB	—	HCL	Y	X								DO NOT BILL TB-LB ANALYSIS [redacted]
MW-6		3		G	1342			X								9-3 5 47
MW-5					1333			X								
MW-4					1405			X								
MW-3					1205			X								WC
MW-2					1223			X								
MW-1					1414			X								

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	G-R Inc.	4-2-98/0800	D. Harding	G-R Inc.	4/3/98
D Harding	G-R	4/3/98	[signature]	SEQUOIA	4-3-98 4:22
[signature]	SEQUOIA	4-3-98	Received For Laboratory By (Signature) [signature]		4/3/98 1747

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

Sequoia Analytical

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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	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 03/31/98
6747 Sierra Court Suite J	Sample Descript: TB-LB	Received: 04/03/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/10/98
Attention: Deanna Harding	Lab Number: 9804230-01	Reported: 04/17/98

QC Batch Number: GC041098802009A
Instrument ID: GCHP09

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	99

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 03/31/98
6747 Sierra Court Suite J	Sample Descript: MW-1	Received: 04/03/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/13/98
Attention: Deanna Harding	Lab Number: 9804230-07	Reported: 04/17/98

QC Batch Number: GC041398802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**2200**
Methyl t-Butyl Ether	**25**	**60**
Benzene	**5.0**	**210**
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	**5.0**	**14**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 03/31/98
6747 Sierra Court Suite J	Sample Descript: MW-2	Received: 04/03/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/13/98
Attention: Deanna Harding	Lab Number: 9804230-06	Reported: 04/17/98

QC Batch Number: GC041398802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**100**	**490**
Methyl t-Butyl Ether	5.0	N.D.
Benzene	**1.0**	**12**
Toluene	**1.0**	**1.2**
Ethyl Benzene	1.0	N.D.
Xylenes (Total)	**1.0**	**1.2**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 03/31/98
6747 Sierra Court Suite J	Sample Descript: MW-3	Received: 04/03/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/10/98
Attention: Deanna Harding	Lab Number: 9804230-05	Reported: 04/17/98

QC Batch Number: GC041098802009A
Instrument ID: GCHP09

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	99

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 03/31/98
6747 Sierra Court Suite J	Sample Descript: MW-4	Received: 04/03/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/10/98
Attention: Deanna Harding	Lab Number: 9804230-04	Reported: 04/17/98

QC Batch Number: GC041098802009A
Instrument ID: GCHP09

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	100

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 03/31/98
6747 Sierra Court Suite J	Sample Descript: MW-5	Received: 04/03/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/10/98
Attention: Deanna Harding	Lab Number: 9804230-03	Reported: 04/17/98

QC Batch Number: GC041098802009A
Instrument ID: GCHP09

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	102

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 03/31/98
6747 Sierra Court Suite J	Sample Descript: MW-6	Received: 04/03/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/10/98
Attention: Deanna Harding	Lab Number: 9804230-02	Reported: 04/17/98

QC Batch Number: GC041098802009A
Instrument ID: GCHP09

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	100

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Received: 04/03/98
6747 Sierra Court Suite J		
Dublin, CA 94568	Lab Proj. ID: 9804230	Reported: 04/17/98
Attention: Deanna Harding		

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 9804230-06 was diluted 2-fold.
Sample 9804230-07 was diluted 10-fold.

SEQUOIA ANALYTICAL

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Project Manager

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Gettler Ryan/Geostrategies	Client Project ID:	Chevron 9-0100, Alameda	
6747 Sierra Court, Ste J	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9804230 -01-05	Reported: Apr 21, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC041098802009A	GC041098802009A	GC041098802009A	GC041098802009A	GC041098802009A
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:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8040426	8040426	8040426	8040426	8040426
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/10/98	4/10/98	4/10/98	4/10/98	4/10/98
Analyzed Date:	4/10/98	4/10/98	4/10/98	4/10/98	4/10/98
Instrument I.D.#:	HP9	HP9	HP9	HP9	HP9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	350 µg/L
Result:	20	21	21	65	330
MS % Recovery:	100	105	105	108	94
Dup. Result:	21	23	23	68	350
MSD % Recov.:	105	115	115	113	100
RPD:	4.9	9.1	9.1	4.5	5.9
RPD Limit:	0-20	0-20	0-20	0-20	0-50
LCS #:	LCS041098	LCS041098	LCS041098	LCS041098	LCS041098
Prepared Date:	4/10/98	4/10/98	4/10/98	4/10/98	4/10/98
Analyzed Date:	4/10/98	4/10/98	4/10/98	4/10/98	4/10/98
Instrument I.D.#:	HP9	HP9	HP9	HP9	HP9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	350 µg/L
LCS Result:	18	19	20	59	310
LCS % Recov.:	90	95	100	98	89
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL
Elap #1271

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
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 9-0100, Alameda
Matrix: Liquid
Work Order #: 9804230-06, 07
Reported: Apr 21, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC041398802004A	GC041398802004A	GC041398802004A	GC041398802004A	GC041398802004A
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:	K. Nill	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	8040682	8040682	8040682	8040682	8040682
Sample Conc.:	N.D.	0.58	N.D.	N.D.	N.D.
Prepared Date:	4/13/98	4/13/98	4/13/98	4/13/98	4/13/98
Analyzed Date:	4/13/98	4/13/98	4/13/98	4/13/98	4/13/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	370 µg/L
Result:	21	22	21	66	410
MS % Recovery:	105	107	105	110	111
Dup. Result:	20	22	21	65	390
MSD % Recov.:	100	107	105	108	105
RPD:	4.9	0.0	0.0	1.5	5.0
RPD Limit:	0-20	0-20	0-20	0-20	0-50
LCS #:	LCS041398	LCS041398	LCS041398	LCS041398	LCS041398
Prepared Date:	4/13/98	4/13/98	4/13/98	4/13/98	4/13/98
Analyzed Date:	4/13/98	4/13/98	4/13/98	4/13/98	4/13/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	370 µg/L
LCS Result:	21	22	21	65	270
LCS % Recov.:	105	110	105	108	73
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL
Elap #1271

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