

ST 10 3910
LS



NOV 12 PM 1:21

November 6, 1997

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

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

**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 1997 (Third 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 wells MW-1 and MW-2 continues to decline from the previous sampling event. The sample results for monitoring wells MW-3, MW-4, MW-5, and MW-6 were below method detection levels for all constituents.

Ground water depth varied from 8.73 feet to 9.68 feet below grade with the direction of flow in a northwesterly direction.

A Risk Based Corrective Action (RBCA) plan was submitted on May 9, 1997 to Juliet Shin of your office, for her review and comment. No reply has been received to date, from your office, on the review of the RBCA. Based on the data submitted and the present sampling results, 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.

Chevron therefore requests that the wells be abandoned and the site be closed.

1/10/97

November 5, 1997
Mr. Thomas Peacock
Former Chevron Service Station #9-0100
Page 2

Chevron will continue the scheduled for the next sampling event in March 1998, unless we receive notice from your office to cease monitoring. If you have any questions, call me at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

A handwritten signature in black ink, appearing to read "Philip R. Briggs". The signature is fluid and cursive, with a long horizontal stroke at the end.

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



GETTLER - RYAN INC.

November 4, 1997

Job #5178.80

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

Re: Semi-Annual 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 September 30, 1997, field personnel were on-site to monitor and sample six wells (MW-1 through MW-6) at the Former Chevron Service Station #9-0100 located at 2428 Central Avenue in Alameda, California.

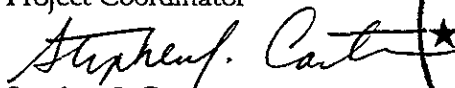
Static groundwater levels were measured on September 30, 1997. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are presented in Table 1. A Potentiometric Map is included as Figure 1.

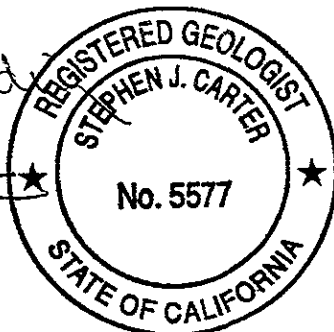
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by NEI/GTEL Environmental Laboratories, Inc. Analytical results are presented 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,

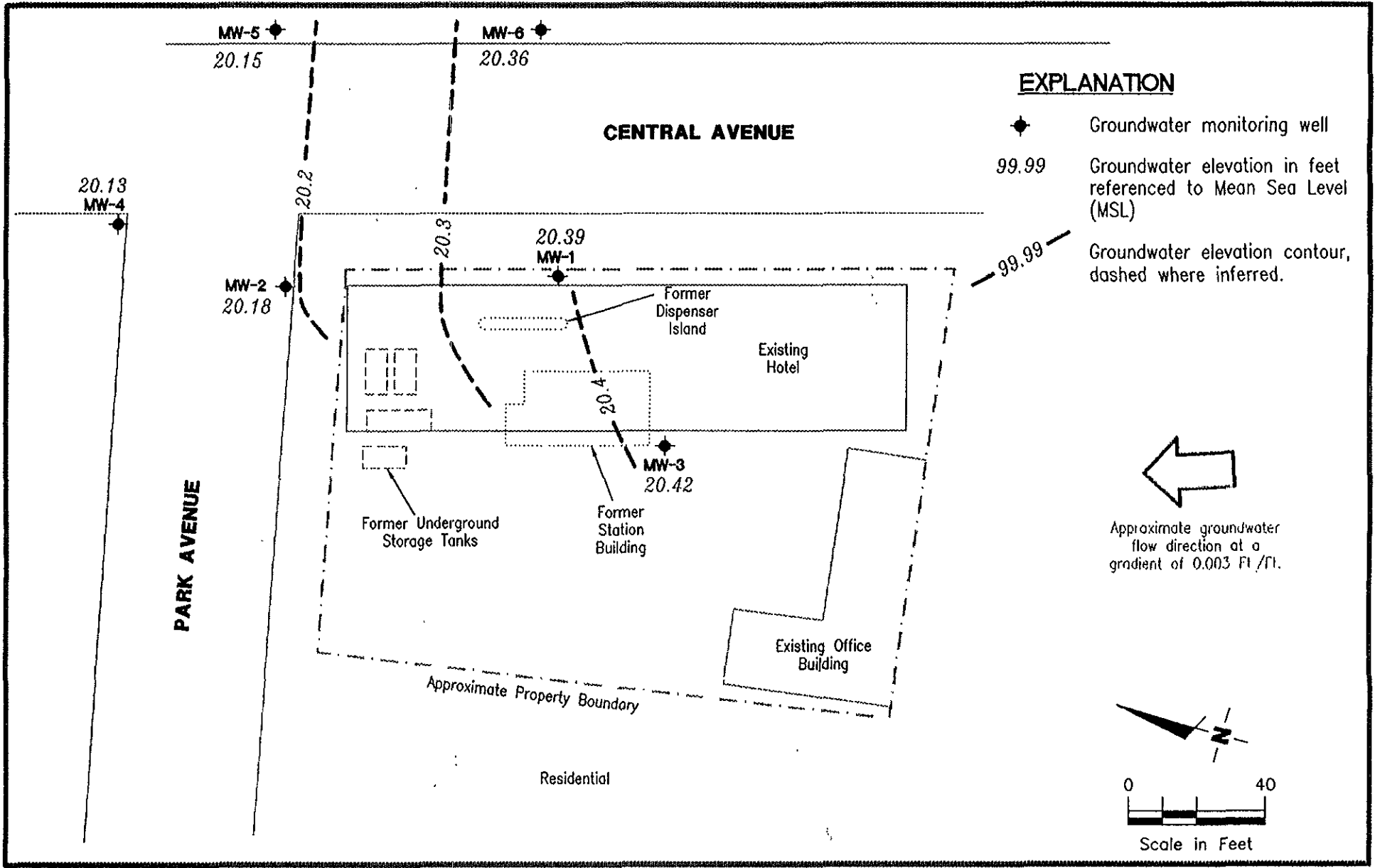

Deanna L. Harding
Project Coordinator


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



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 (510) 551-7555
 Dublin, CA 94568

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

FIGURE 1

JOB NUMBER
5178

REVIEWED BY

DATE
September 30, 1997

REVISED DATE



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/ 29.23	3/10/94 ^{1,2}	6.79	22.44	0	7,400	120	120	33	72	---
	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 ^s	<250 ^s	<250 ^s	<250 ^s	---
	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
MW-2/ 29.18	3/10/94 ^{2,3}	6.94	22.24	0	6,400	<5	64	58	17	---
	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 ^s	<100 ^s	<100 ^s	<100 ^s	---
	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
MW-3/ 30.09	3/10/94 ^{2,4}	7.30	22.79	0	<50	<0.5	<0.5	<0.5	<0.5	---
	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
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
	9/30/97	9.18	20.13	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)	←-----ppb----->				
						B	T	E	X	MTBE
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
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
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



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.



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
 Address: 2428 Central Avenue
 City: Alameda, CA

Job#: 5178.80
 Date: 9-30-97
 Sampler: E. Cline

Well ID MW-1
 Well Diameter 2" in.
 Total Depth 29.7 ft.
 Depth to Water 8.86 ft.
15.84

Well Condition: _____

Hydrocarbon Thickness:	Amount Bailed (product/water):			
2" = 0.17	3" = 0.38	4" = 0.66		
6" = 1.50	12" = 5.80			

15.84 x VF 0.17 = 2.7 X 3 (case volume) = Estimated Purge Volume: 8.1 (gal.)

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

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

Starting Time: 1103
 Sampling Time: 1110
 Purging Flow Rate: 1.5 gpm.
 Did well de-water? N/C

Weather Conditions: clear
 Water Color: clear Odor: Mild
 Sediment Description: N/C
 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>1104</u>	<u>2.7</u>	<u>6.98</u>	<u>261</u>	<u>19.4</u>			
<u>1106</u>	<u>6</u>	<u>7.06</u>	<u>259</u>	<u>19.5</u>			
<u>1108</u>	<u>9</u>	<u>7.07</u>	<u>247</u>	<u>19.3</u>			
<u>1110</u>	<u>10</u>	<u>7.06</u>	<u>248</u>	<u>19.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- <u>1</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEI/GTEL</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-0100

Job#: 5178.80

Address: 2428 Central Avenue

Date: 9-30-97

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): _____ (gal.)

Total Depth 23.75 ft.

Depth to Water 9.01 ft.

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

$(14.75) \times VF_{0.17} = 2.5 \times 3 \text{ (case volume)} = \text{Estimated Purge Volume: } 7.5 \text{ (gal.)}$

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

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

Starting Time: 10:54

Weather Conditions: Clear warm

Sampling Time: 10:29

Water Color: Clear Odor: None

Purging Flow Rate: 2.5 gpm.

Sediment Description: None

Did well de-water? No

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

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}$	Temperature $^{\circ}\text{C}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:55</u>	<u>2.5</u>	<u>6.56</u>	<u>583</u>	<u>21.5</u>			
<u>10:56</u>	<u>5.0</u>	<u>6.61</u>	<u>536</u>	<u>21.1</u>			
<u>10:57</u>	<u>7.5</u>	<u>6.63</u>	<u>525</u>	<u>20.8</u>			
<u>10:59</u>	<u>8.0</u>	<u>6.67</u>	<u>530</u>	<u>21.0</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>NEI/GTEL</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-0100

Job#: 5178.80

Address: 2428 Central Avenue

Date: 9-30-97

City: Alameda, CA

Sampler: E. Cline

Well ID MW-3

Well Condition: okay

Well Diameter 2" in.

Hydrocarbon ~~○~~ Amount Bailed
Thickness: _____ in. (product/water): _____ (gal.)

Total Depth 29.7 ft.

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

Depth to Water 9.68 ft.

14.82 x VF 0.17 = 2.5 X 3 (case volume) = Estimated Purge Volume: 7.5 (gal.)

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

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

Starting Time: 10:40

Weather Conditions: clear warm

Sampling Time: 10:46

Water Color: clear Odor: None

Purging Flow Rate: 2.5 gpm.

Sediment Description: None

Did well de-water? 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>10:42</u>	<u>2.5</u>	<u>6.66</u>	<u>431</u>	<u>21.0</u>			
<u>10:43</u>	<u>5.0</u>	<u>6.62</u>	<u>435</u>	<u>20.4</u>			
<u>10:44</u>	<u>2.5</u>	<u>6.63</u>	<u>447</u>	<u>20.2</u>			
<u>10:46</u>	<u>8.0</u>	<u>6.62</u>	<u>446</u>	<u>20.3</u>			

LABORATORY INFORMATION

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

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-0100
 Address: 2428 Central Avenue
 City: Alameda, CA

Job#: 5178.80
 Date: 9-30-91
 Sampler: F.Cline

Well ID MW-4
 Well Diameter 2" in.
 Total Depth 20 ft.
 Depth to Water 9.18 ft.

Well Condition: OK

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

10.82 x VF 0.17 = 1.8 X 3 (case volume) = Estimated Purge Volume: 5.5 (gal.)

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

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

Starting Time: 10:28
 Sampling Time: 10:33
 Purging Flow Rate: 2 gpm.
 Did well de-water? No

Weather Conditions: clear 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>1029</u>	<u>2</u>	<u>6.74</u>	<u>80</u>	<u>21.8</u>			
<u>1030</u>	<u>4</u>	<u>6.75</u>	<u>79</u>	<u>21.9</u>			
<u>1031</u>	<u>6</u>	<u>6.76</u>	<u>80</u>	<u>21.8</u>			
<u>1033</u>	<u>7</u>	<u>6.73</u>	<u>85</u>	<u>21.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEI/GTEL</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-0100
 Address: 2428 Central Avenue
 City: Alameda, CA

Job#: 5178.80
 Date: 9-30-97
 Sampler: E. Cline

Well ID MW- 5

Well Condition: OK 97

Well Diameter 2" in.

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

Total Depth 21 ft.

Depth to Water 817.3 ft.

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

12.27 x VF 0.17 2.1 x 3 (case volume) = Estimated Purge Volume: 6.3 (gal.)

Purge Equipment: Disposable Bailer
Stack
 Suction
 Grundfos
 Other: _____

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

Starting Time: 10:16
 Sampling Time: 10:21
 Purging Flow Rate: 2.1 gpm.
 Did well de-water? Men

Weather Conditions: Clear calm
 Water Color: Clear Odor: Men
 Sediment Description: Clear
 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>10:17</u>	<u>2.1</u>	<u>6.73</u>	<u>109</u>	<u>23.1</u>			
<u>10:18</u>	<u>4.2</u>	<u>6.68</u>	<u>116</u>	<u>23.1</u>			
<u>10:19</u>	<u>6.3</u>	<u>6.70</u>	<u>118</u>	<u>23.1</u>			
<u>10:21</u>	<u>7.0</u>	<u>6.69</u>	<u>118</u>	<u>23.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW- 5</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEI/GTEL</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-0100

Job#: 5178.80

Address: 2428 Central Avenue

Date: 9-29-97

City: Alameda, CA

Sampler: E.Cline

Well ID MW-6

Well Condition: OK

Well Diameter 2" in.

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

Total Depth 21 ft.

Depth to Water 8.88 ft.

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

12.12 x VF 2.06 = _____ X 3 (case volume) = Estimated Purge Volume: 6.2 (gal.)

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

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

Starting Time: 10:02
 Sampling Time: 10:07
 Purging Flow Rate: 220 gpm.
 Did well de-water? No

Weather Conditions: Clear over
 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>10:04</u>	<u>2.22</u>	<u>7.28</u>	<u>110</u>	<u>22.8</u>			
<u>10:05</u>	<u>4.44</u>	<u>7.25</u>	<u>108</u>	<u>22.9</u>			
<u>10:06</u>	<u>6</u>	<u>7.20</u>	<u>106</u>	<u>22.8</u>			
<u>10:08</u>	<u>7</u>	<u>7.22</u>	<u>107</u>	<u>22.8</u>			

LABORATORY INFORMATION

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

COMMENTS: _____

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 NEI/GTEL Service Code: ZZ02790
 Laboratory Service Order # 9033185
 Samples Collected by (Name) Filline
 Collection Date 9-30-97
 Signature [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	Iced (Yes or No)	Analytes To Be Performed											Remarks					
								TPH Gas + BTEX w/MIB (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-LB	1	2	W	TB	-	HCL	Y	X																
MW-6	2	3		G	1008	HCL		X																
MW-5	3				1091			X																
MW-4	4				1033			X																
MW-3	5				1086			X																
MW-2	6				1059			X																
MW-1	7				1110			X																

DO NOT BILL
 TB-LB ANALYSIS
~~Gettler-Ryan~~
~~Lab of (8015)~~
~~MW-5 0260~~

COG-3.DWG/03 91/rch

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>9-7-97/0800</u>	Received By (Signature) <u>D. Harding</u>	Organization <u>G-R Inc.</u>	Date/Time <u>10/1/97</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <input checked="" type="radio"/> <u>As Contracted</u>
Relinquished By (Signature) <u>D. Harding</u>	Organization <u>G-R</u>	Date/Time <u>10/1/97</u>	Received By (Signature) <u>John Weber</u>	Organization <u>NEI/GTEL</u>	Date/Time <u>10/1/97</u>	
Relinquished By (Signature) <u>John Weber</u>	Organization <u>NEI/GTEL</u>	Date/Time <u>10/1/97</u>	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time <u>10/1/97</u>	



NEI/GTEL

ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

October 7, 1997

Deanna Harding
GETTLER-RYAN
6747 Sierra Ct.
Suite J
Dublin, CA 94568

RE: NEI/GTEL Client ID: GTR01CHV08
Login Number: W7100042
Project ID (number): 5178
Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Dear Deanna Harding:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 10/02/97.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 2147.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: GTR01CHV08
 Login Number: W7100042
 Project ID (number): 5178
 Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Method: EPA 8020A
 Matrix: Aqueous

NEI/GTEL Sample Number	W7100042-01	W7100042-02	W7100042-03	W7100042-04
Client ID	TB-LB	MW-6	MW-5	MW-4
Date Sampled		09/30/97	09/30/97	09/30/97
Date Analyzed	10/04/97	10/04/97	10/04/97	10/04/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
MTBE	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes (total)	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
BTEX (total)	--	ug/L	--	--	--	--
TPH as Gasoline	50	ug/L	< 50	< 50	< 50	< 50

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: GTR01CHV08

Login Number: W7100042

Project ID (number): 5178

Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Method: EPA 8020A

Matrix: Aqueous

NEI/GTEL Sample Number	W7100042-05	W7100042-06	W7100042-07	--
Client ID	MW-3	MW-2	MW-1	--
Date Sampled	09/30/97	09/30/97	09/30/97	--
Date Analyzed	10/04/97	10/04/97	10/04/97	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting		Concentration:			
	Limit	Units				
MTBE	5.0	ug/L	< 5.0	6.9	26.	--
Benzene	0.5	ug/L	< 0.5	12.	53.	--
Toluene	0.5	ug/L	< 0.5	1.0	2.4	--
Ethylbenzene	0.5	ug/L	< 0.5	1.4	2.8	--
Xylenes (total)	0.5	ug/L	< 0.5	5.8	6.4	--
BTEX (total)	--	ug/L	--	20.	65.	--
TPH as Gasoline	50	ug/L	< 50	2400	3500	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7100042

Volatile Organics

Project ID (number): 5178

Method: EPA 8020A

Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune			NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7100042

Volatile Organics

Project ID (number): 5178

Method: EPA 8020A

Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020A	Acceptability Limits:		43-136%
100497GC14-1	CV1004972014	Calibration Verifi	103.
100497GC14-4	BW10049714R1	Method Blank Water	98.7
100497GC14-6	MS10004203	Matrix Spike	103.
100497GC14-7	DP10004402	Duplicate	97.6
--	10004201	TB-LB	98.0
--	10004202	MW-6	91.0
--	10004203	MW-5	97.0
--	10004204	MW-4	98.2
--	10004205	MW-3	98.4
--	10004206	MW-2	108.
--	10004207	MW-1	110.

Notes:

*: Indicates values outside of acceptability limits. See Sample Report.

Project ID (Number): 5178
Project ID (Name): Chevron SS #9-0100
2428 Central Ave
Alameda, CA
Work Order Number: W7-09-0042
Date Reported: 10-07-97

METHOD BLANK REPORT

Volatile Organics in Water
EPA Method 8020A

Date of Analysis: 04-OCT-97 QC Batch No: 100497GC14-4

Analyte	Concentration, ug/L
MTBE	<0.5
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylene (total)	<0.5
TPH as Gasoline	<50

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7100042

Volatile Organics

Project ID (number): 5178

Method: EPA 8020A

Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020A	Units:ug/L	QC Batch:100497GC14-1		
Benzene	20.0	20.3	102.	77-123%
Toluene	20.0	20.1	101.	77.5-122.5%
Ethylbenzene	20.0	22.3	112.	63-137%
Xylenes (Total)	60.0	63.8	106.	85-115%
TPH as Gasoline	500.	433.	86.6	80-120%

Notes:

QC check source: Supelco #LA12389

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7100042

Volatile Organics

Project ID (number): 5178

Method: EPA 8020A

Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8020A	Units: ug/L QC Batch: 100497GC14-7 GTEL Sample ID: W7100044-02 Client ID: Batch QC			
MTBE	< 10.0	< 10.0	NA	20
Benzene	< 0.500	< 0.500	NA	23.9
Toluene	< 1.00	< 1.00	NA	27.2
Ethylbenzene	< 1.00	< 1.00	NA	21.6
Xylenes (Total)	< 2.00	< 2.00	NA	22.0
TPH as Gasoline	< 100.	< 100.	NA	20

Notes:

NA - The concentration of the analyte is less than the reporting limit.

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7100042

Volatile Organics

Project ID (number): 5178

Method: EPA 8020A

Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W7100042-03		MS ID:MS10004203			
Analysis Date: 04-OCT-97		04-OCT-97			
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Benzene	< 0.5 (0.140)	20.0	20.9	104.	67-110
Toluene	< 0.5 (0.000)	20.0	20.8	104.	68-115
Ethylbenzene	< 0.5 (0.000)	20.0	23.4	117.	65-120
Xylenes (Total)	< 0.5 (0.000)	60.0	66.7	111.	62-119

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.