# PROTECTION



96 OCT 22 AM 8: 59

October 17, 1996

Ms. Juliet Shin Alameda County Health Care Services Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 Chevron U.S.A. Products Company 6001 Bollinger Canyon Road Building L San Ramon, CA 94583

San Ramon, CA 94583 P.O. Box 5004 San Ramon, CA 94583-0804

Marketing - Northwest Region

Phone 510 842 9500

Re:

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

Dear Ms. Shin:

Enclosed is a copy of the Semi-Annual Groundwater Monitoring Report that was prepared by our consultant Gettler-Ryan Inc. for the above noted site. Goundwater samples were analyzed for TPH-g, BTEX, and MtBE constituents. Six monitoring wells were sampled, including the three new wells (MW-4, MW-5, MW-6), that were noted under the separate report dated October 14, 1996.

The sampled results for monitoring wells MW-1, MW-2, and MW-3 appear to be consistent with previous sampling events. The sample results for monitoring wells MW-4, MW-5, and MW-6 were below method detection levels for all constituents. Ground water depth varied from 7.90 to 8.80 feet below surface grade with the direction of flow in a northerly direction.

The next sampling event is scheduled for the first quarter of 1997. Field investigation and evaluation of the sewer line in Central Avenue is expected to be conducted at this time to determine what impact, if any, the line has on the dissolved hydrocarbons that are present at the site.

A risk evaluation will be submitted, based on the recent secured data from the latest monitoring well installation. This risk evaluation is expected to be submitted within 45 days. Also note for your files that the Bank of America does not have any further interest in this site and will not be copied with the reports. If you have any questions, call me at (51) 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



# GETTLER-RYAN INC.

October 7, 1996

Job #5178.80

Mr. Phil Briggs Chevron Products Company P.O. Box 5004 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 3, 1996, 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 3, 1996. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the site 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 to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

Sincerely,

Deanna L. Harding

Project Coordinator

Penny L. Silzer

Senior Geologist, R.G. No. 552

DLH/PLS/dlh 5178.QML

Figure 1:

Potentiometric Map

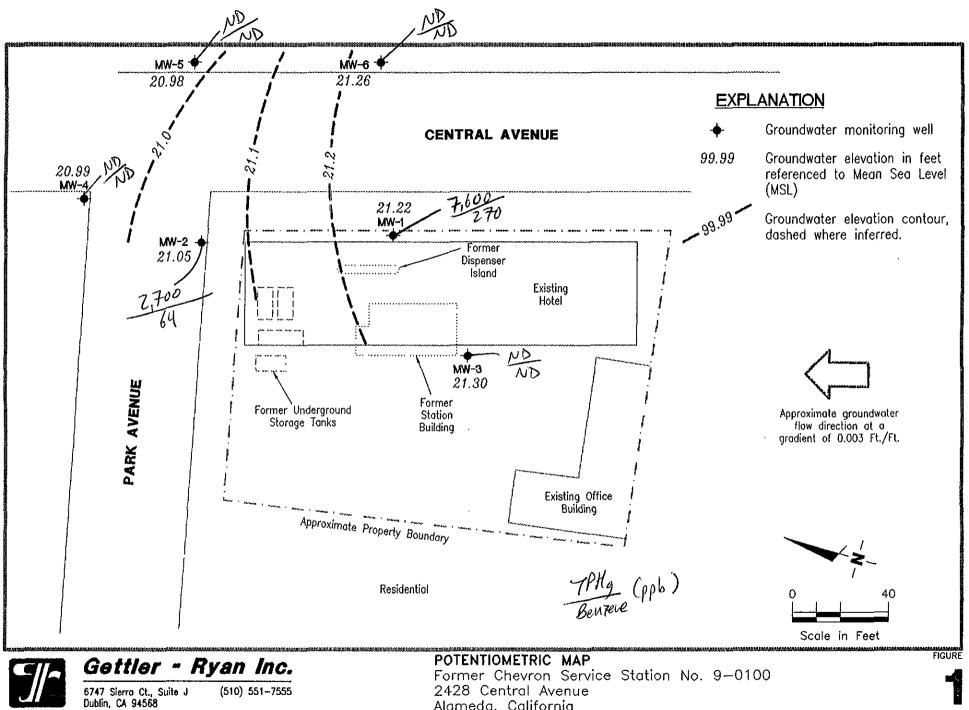
Table 1: Attachments:

Water Level Data and Groundwater Analytical Results Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

Penny L. Silze



JOB NUMBER 5178

REVIEWED BY

August 30, 1996

2428 Central Avenue Alameda, California

REVISED DATE



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

Well ID/		DTW	GWE	Product Thickness*	TPH(G)	В	т	Е	X	МТВЕ
TOC (ft)	Date	(ft)	(msl)	(ft)	Trn(G)	<		ppb		>
MW-1/	3/10/94 <sup>1,2</sup>	6.79	22.44	0	7 400	100	100		70	
29.23	6/21/94	7.74	21.49	0	7,400	120 140	120 60	33 21	72 43	
23.23	9/26/94	8.94			5,300					
	12/16/94	6.57	20.29	0	9,500	<250 <sup>s</sup>	<2505	<250 <sup>5</sup>	<2505	
	3/22/95	5.16	22.66 24.07	0	4,700	<0.5	46	15	48	
	6/13/95	5.84	23,39	0 0	8,800	55	14	11	<10	
	9/15/95	7.65		0	2,100	130	29	9.5	15	
	3/8/96	5.36	21.58 23.87	0	8,100	110	26	6.0	13	
29.25**	9/3/96	8.03			5,600	250	<5.0	<5.0	< 5.0	60
29.23	913190	8,93	21.22	0	7,600	270	5.6	3.4	4.9	120
MW-2/	3/10/942,3	6.94	22.24	0	6,400	<5	64	58	17	
29.18	6/21/94	7.89	21.29	Ö	1,800	23	12	6.9	32	
	9/26/94	8.98	20.20	0	8,400	<1005	< 1005	<100 <sup>5</sup>	<1005	
	12/16/94	6.65	22.53	Ö	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	Ô	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
MW-3/	3/10/942,4	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
MW-4										
29.31**	9/3/96	8,32	20.99	0	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0
	713170	0,34	4U.77	U	<b>\30</b>	<v.5< td=""><td><b>~0.3</b></td><td><b>~U.</b>3</td><td><b>~0.3</b></td><td><b>~3.0</b></td></v.5<>	<b>~0.3</b>	<b>~U.</b> 3	<b>~0.3</b>	<b>~3.0</b>
MW-5										
28.88**	9/3/96	7.90	20.98	0	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0
MW-6	A12.10.0	****	A							. = 0
29.24**	9/3/96	7.98	21.26	0	<5.0	< 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 <	Т	Eppb	x	МТВЕ >
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



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).
- TPH(D) was also analyzed and detected at 840 ppb. However, chromatogram does not match typical diesel pattern.
- Organic lead and EDB were also analyzed but not detected at detection limts of 4 and 0.02 ppb, respectively.
- TPH(D) was also analyzed and detected at 920 ppb. However, chromatogram does not match typical diesel pattern.
- TPH(D) was also analyzed but not detected at detection limits of 50 ppb.
- 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 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.

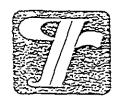
After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging.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

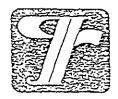
The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the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

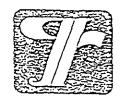
As requested by Chevron USA Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.



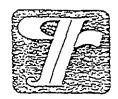
SAMPLER	F Cliri		DATE	85	0-96
ADDRESS	2428 Cen	Ival Aug	JOB#	5178	185
CITY	Flam	era ca	SS#	9-0	100
Well ID	MW-1	Well Condition	Okay		
Well Location Descript	tion ·				
Well Diameter	2'' in	Hydrocarbon Thickn	iess		
Total Depth	2417 ft	Volume	2" = 0.17	6" = 1.50	12" = 5.80
Depth to Liquid	803 ft	Factor	3" = 0.38		
# of casing 3X Volume	1667:	x <u>G1)7</u> x(\	4" = 0.66 (F) 2-8 #Es	stimated 8	(5 gal.
Purge Equipment	Suction	Sampling Equipmen	Backi	Volume	
Did well dewater	116	If yes, Time	. Volume		•••
Starting Time	1334 1342	Purging Flow Rate		1,5	gọm.
Time /3:36 /3:38 /3:40 /3:42	Cr.73 (e173 (c.72 (.73	Conductivity 293 375 268 266.4	Temperatur 21.9 21.0	-e	Volume 3 6 9 1
Weather Conditions	Sanny W	Jarm Char	-		
Water Color:	Clas	<u></u>	Odor:	Mile	√ 
Sediment Description		hkul		<del></del>	
	L.A.E	BORATORY INFORMAT	NOF		
Sample ID	Container Re	Irig Preservativa Ty	pe Lab		Analysis
1/1W-3	3 Kyanivit	1 Iki	6712	Liu	3B14510181
				i	
Comments					•



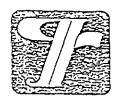
SAMPLER	F Chire		DATE	8-30-96
ADDRESS .	2428 Cen	ival five	JOB#	5178.85
CITY	A. iamo	eca CA	\$\$# ·	
Well ID	MW-2	Well Condition	Otay	
Well Location Descrip				
Well Diameter	2' in	Hydrocarbon Thick	ness	
Total Depth	23·75 ft	Volume	2" = 0.17 6"	= 1.50 12" = 5.80
Depth to Liquid	8.14 ft	Factor	3° = 0.38	. 12 2 0.30
, , , , , , , , , , , , , , , , , , ,	15/1	(VF)	4" = 0.66	
# of casing X X	15.01	< <u>6.17</u> x	VF) 2.65 #Estin	nated 7.96 gal.
Purge Equipment	SheTien	Sampling Equipmer	· A A Vo	olume
Did well dewater	NC	If yes, Time	Volume	
Starting Time (	3:23	Purging Flow Rate	j. <sup>6</sup>	
Sampling Time				
Time 	рН 	Conductivity 542	Temperature 2.3.7	Volume 2,8
1327	-3.57	/ 547	23.5	5.6
1329	(0.56 V	545	93.2	- <u>8.4</u> 9.0
Weather Conditions	Sanny Wi	arm clear		-
Water Color:	Clear	,	Odor:	1260,1d
Sediment Description		Alone:		
	1 05	BORATORY INFORMA	TION	
Samole ID		Irig Preservativa T		Analysis
NW-Z	3x40~11/21 \		GTEL	Analysis - (rc.5, Bix3, M75)
		<u> </u>		
	<u> </u>			
Comments				



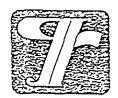
SAMPLER	- F Cline,		DATE	8-30-96
ADDRESS	2428 Ces	nival Ave	J06 #	5178.85
CITY	- Alam	eca CA	SS#	9-010C
Well ID	MW-3	Well Condition	ctay	/
Well Location Descrip	$\lambda''$			
Well Diameter	<u>in</u>	Hydrocarbon Thic	kness	
Total Depth	2417 ft	Valume	2" = 0.17	6° = 1.50 12° = 5.80
Depth to Liquid .	9.80 ft	Factor	3° = 0.38	
# of casing X Volume	15,7	× 3)17 >	$4^{\circ} = 0.66$ $4^{\circ} = 0.66$	imated <u>4,0</u> gal.
Purge Equipment	Sherien	Sampling Equipm	ent D. Balli	Volume
Did well dewater	NC	If yes, Time	Volume	
Starting Time Sampling Time	13'11 1320	Purging Flow Rate	e	gpm.
Time 13/13 1/315 1317 1320:	Colles Colles Colley Colley Colles	Conductivity 386 373 370. 369	Temperature 23. 7 22. 5 22. 5	Volume3
Weather Conditions	Sunn	Char war	m .	
Water Color:	Clear		Odor:	None
Sediment Description		Mone-		
	LA	BORATORY INFORMA	NOITA	
Sample ID		elrig Preservativa	Type Lab	Analysis
N/1W-3	3×40-1 VCA Y		6700	Gus B742 AMTB12
		•		
Comments_				



SAMPLER	F C/INE,		DATE	8 30 96
ADDRESS .	2428 Con;	ival Aug	JOB#	5178.85
CITY	Flame	eda CA	SS#	
Well ID	MW-4	Well Condition	oka	Ч
Well Location Descrip	, <u></u> -			
Well Diameter	2' in	Hydrocarbon Thick	iness &	
Total Depth		Volume	2" = 0.17	6" = 1.50
Depth to Liquid	8.32 ft	Factor	3" = 0.38	
# of casing Six Volume	_1/.Ce8x	(VF) ×(	4" = 0.66 VF) /, 9 #Es	timated <u>\$,9</u> gal. fourge
Purge Equipment	SACTION	Sampling Equipmen	nt D. Bail	Volume
Did well dewater	Mc	If yes, Time	Volume	. =
Starting Time /	2:55	Purging Flow Rate	1,0	y gpm.
Sampling Time	1304.	<u>.</u>	\ <u></u>	•
Time 	5:16 -6:59 -6:59 -6:60	Conductivity 928 672 657 CECECI	Temperatur 23.6- 23.3 23.1 23.2	Volume  Volume  7
Weather Conditions	Sunny	warmine,	·	
Water Color:	Clear	_	Odor:	New
Sediment Description	N/c.	<u> </u>	·	
	LAB	ORATORY INFORMA	TION	
Sample 10	Container Ref	rig <u>Preservativo</u> T	ypa Lab	Analysis
NW=4	3x40m1va y	1 the	GTB(	Gus Bixe Wills
Comments				



SAMPLER	t Clive		DATE	8-30-96
ADDRESS .	2428 Cer	ival Aug	J08 #	5178.85
CITY	Alam	eca CA	SS#	9-0100
Well ID	MW-5	Well Condition	Otay	
Well Location Descrip	tíon ·			
Well Diameter	2	Hydrocarbon Thio	kness	
Total Depth	21 ft	Volume	2" = 0.17 6	" = 1.50 12" = 5.80
Depth to Liquid	7.90 ft	Factor	3° = 0.38	
# of casing 3 X	13.1	(VF) × 01/7	-, ·	mated <u>67</u> gal. purge
Purge Equipment	Suction	Sampling Equipm	2 1. V	olume
Did well dewater	1 /le	If yes, Time	Volume	• •
Starting Time	12:30	Purging Flow Rat	e /, /	gpm.
Sampling Time	1239	•	•	•
Time · _12732	6-87	Conductivity 100	Temperature 23 ( 1	Volume 7-2
12:34	7.40	747	22.9	4.4
1239.	7.41	7/95	22-4	
	Parth			
Weather Conditions	Paving	Claricy !	Warmins	
Water Color:	Cliar	/	Odor:	Alcr
Sediment Description		Mon		
	LA	BORATORY INFORM	ATION .	
Sample ID	Container R	efrig Preservative	Type Lab	Analysis
Mw-5	3×40 041	y 1/cc	GTEC	1 Cas Bix3
Comments				
· · · · · · · · · · · · · · · · · · ·				



ADDRESS	2428 Ce					
CITY	<del>, , , , , , , , , , , , , , , , , , , </del>	FN7V	al Aug	J08 #	5/78	(135
	Aiam	ne	ia CA	SS#	9-0	10C
Well ID	MW-6		Well Condition	Otsi	<del></del>	
Well Location Description				*		
Well Diameter	2'' in		Hydrocarbon Thickn	iess _C		
Total Depth	21 ft		Volume	2" = 0.17	6° = 1.50	12" = 5.80
Depth to Liquid	7.98 ft		Factor	3" = 0.38		
	13.CZ		(VF)	4" ≈ 0.66		
# of casing		×	<u>6117</u> x(V	#E <u>ح.2. (</u> F)		.4 gal.
Purge Equipment	Saction		Sampling Equipmen	t Baile	ipurge Volume	
Did well dewater	NC		If yes, Time	Volume	<del></del>	
Starting Time	1008		Purging Flow Rate	······································	1-1	gpm.
Sampling Time	1217				-	
Time _, 2 ! O 	6.74 Co.71 Co.73 Co.72		Conductivity (C) (C) (45) (46)	Temperatu 22-2 22-0 22-1 " 22-0	ore	Volume 2.2 4.4 6.6 7.0
Weather Conditions	Pa	r TL	1 Ckudy	tvarmi	ns	
Water Color:	Char		•	Odor:	1/0	
Sediment Description		Mc	1			
	L	ABO	RATORY, INFORMAT	TION		
Sample 10		Retrig	<del></del>			Analysis
MwC	3 x 40 m 1 VZA	7_	1ki	GTIEL		ens BIXI MIB
Comments						·



### **Midwest Region**

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

September 17, 1996

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

RE: GTEL Client ID:

GTR01CHV08

Login Number:

W6090081

Project ID (number):

5178.85

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 GTEL Environmental Laboratories, Inc. on 09/06/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by 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 1845.

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

aro Project Coordinator

Sincerely,

GTEL Environmental Laboratories, Inc.

Terry R. Loucks

Laboratory Director

# ANALYTICAL RESULTS Volatile Organics

GTEL Client ID:

GTR01CHV08

Login Number:

W6090081

Project ID (number): 5178.85

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

Method: EPA 8020A

Matrix: Aqueous

	GTEL Sample Number	W6090081-01	W6090081-02	W6090081-03	W6090081-04
	Client ID	TB-LB	MW-3	MW-4	MW-5
	Date Sampled		09/03/96	09/03/96	09/03/96
	Date Analyzed	09/12/96	09/12/96	09/12/96	09/12/96
	Dilution Factor	1.00	1.00	1.00	1.00
	Reporting				
Analyte	Limit Units	Co	ncentration:		
MTBE	5.0 ug/L	< 5.0	. < 5.0	< 5.0	< 5.0
Renzene	0.5 ua/l	< 0.5	< 0.5	< 0.5	< 0.5

Analyte	Limit Unit	:sConcentration:
MTBE	5.0 ug/	L < 5.0 < 5.0 < 5.0 < 5.0
Benzene	0.5 ug/	'L < 0.5 < 0.5 < 0.5
Toluene	0,5 ug/	(L) < 0.5 · · · · < 0.5 · · · · < 0.5 · · · · < 0.5
Ethylbenzene	0.5 ug/	
Xylènes (total)	0.5 ug/	化 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5
BTEX (total)	ug/	′L
TPH as Gasoline	50 ug/	/L < 50 < 50 < 50 < 50
and the state of t		

#### 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.

GTEL Wichita, KS W6090081

Page: 1

### ANALYTICAL RESULTS Volatile Organics

GTEL Client ID:

GTR01CHV08

Login Number:

W6090081

Project ID (number): 5178.85

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

Method: EPA 8020A

Matrix: Aqueous

	GTEL Sample	Number	W6090081-05	W6090081-06	W6090081-07	• •
	C1	ient ID	MW-6	MW-2	MW-1	
	Date	Sampled	09/03/96	09/03/96	09/03/96	••
	Date A	nalyzed	09/12/96	09/13/96	09/13/96	
	Dilution	Factor	1.00	1.00	1.00	
	Reporting					
Analyte	Limit	Units	Co	ncentration:		
MTBE	5.0	ug/L	< 5.0	35.	120	
Benzene	0.5	_ug/L_	< 0.5	64.	270	<u> </u>
Toluene	0.5	ug/L	< 0.5	4.6	5.6	
Ethylbenzene	0.5	.ug/L	< 0.5	1.6	3.4	المراوع السحاري
Xylenes (total)	0.5	ug/L	< 0.5	4.6	4.9	
BTEX (total)		ug/L	•••	75.	280	
TPH as Gasoline	50	ug/L	< 50	2700	7600	

#### 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.

GTEL Client ID:

GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: Project ID (number): 5178.85

W6090081

Volatile Organics 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	<b>X</b>		· · ·	1. 3.2
Surrogate Recovery	χ		NA	••
Holding Time	<b>X</b> 33			
Method Accuracy	X		· 	
Method Precision	X	où je où <del>ee</del>	· · · · · · · · · · · · · · · · · · ·	
Blank_Contamination	X			•

Comments:

GTR01CHV08

QUALITY CONTROL RESULTS

GTEL Client ID: Login Number:

W6090081

Project ID (number): 5178.85

Volatile Organics 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 80	)20A	Acceptability Limits:	43-136%					<u> </u>			
091296GC17-1	CV09129620	17 Calibration Verifi	98.5				-		-		
091296GC17-3	BW09129617	Method Blank Water	91.8						•		
091296GC17-4	LW09129617	: Laboratory Control	95.7			•			;	.: ':.	::
091296GC17-7	DP09008107		104.								
	09008101	: TB-LB	96.9	•		 • •					
	09008102	MW-3	85. <b>0</b>								
	09008103	MW-4	95.0							1	
<del></del>		MW-5	94.1								
	09008105		93.8		•	 	•		už Pr		
	09008106	MW-2	99.5								
	09008107	MW-1	104.	-:			,	·			

#### Notes:

<sup>\*:</sup> Indicates values outside of acceptability limits. See Nonconformance Summary.

Project ID (Number): 5178.85
Project ID (Name): Chevron SS #9-0100 2428 Central Ave. Alameda, CA
Work Order Number: W6-09-0081
Date Reported: 09-17-96

# METHOD BLANK REPORT

# Volatile Organics in Water EPA Method 8020A

Date of Analysis:

12-Sep-96

QC Batch No:

091296GC17-3

Analyte	Concentration, ug/L				
MTBE	<5.0				
Benzene	<0.5				
Toluene	<0.5				
Ethylbenzene	<0.5				
Xylene (total)	<0.5				
TPH as Gasoline	<50				

GTEL Client ID:

GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: Project ID (number): 5178.85

W6090081

Volatile Organics Method: EPA 8020A

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

Matrix: Aqueous

# Calibration Verification Sample Summary

		Spike	Check Sample	QC Percent	Acceptability Limits	
Analyte		Amount	Concentration	Recovery_	Recovery	
EPA 8020A	Units:ug/L	QC Bat	ch:091296GC17-1			
Benzene		20.0	23.5	118.	77-123%	
Toluene		20.0	22.6	113.	77.5-122.5%	••
Ethylbenzene		20.0	22.4	112.	63-137%	
Xylenes (Total)		60.0	64.1	107.	85-115%	 ••
TPH as Gasoline	:	500.	470.	94.0	80-120%	

Notes:

QC check source: Supelco #LA12389

GTEL Client ID:

GTR01CHV08

QUALITY CONTROL RESULTS

Login Number:

W6090081

Project ID (number): 5178.85

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

Volatile Organics Method: EPA 8020A

Matrix: Aqueous

# Laboratory Control Sample Summary

		Spike	Check Sample	QC Percent	Acceptability Limits	
Analyte		Amount	Concentration	Recovery	Recovery	
EPA 8020A	Units:ug/L	QC Ba	atch: 091296GC17-4			
Benzene		20.0	23.5	118.	39-150%	
Toluene	•	20.0	22.6	113.	46-148%	
Ethylbenzene		20.0	22.3	112.	32-160%	
Xylenes (Total)		60.0	64.0	107.	51-145%	 

Notes:

GTEL Client ID:

GTR01CHV08

QUALITY CONTROL RESULTS

Login Number:

W6090081

Project ID (number): 5178.85

Volatile Organics Method: EPA 8020A

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

Matrix: Aqueous

# Duplicate Sample Results

	Original	Duplicate		Acceptability	
Analyte	Concentration	Concentration	RPD_ %	_ Limits, %	
EPA 8020A Units: ug/L	QC Batch: 0	91296GC17-7 GTE	L Sample ID:	W6090081-07	Client ID: MW-1
MTBE	121.	116.	4.22	20	
Benzene	270.	257.	4.93	23.9	
Toluene:	5.59	5.31	5.14	27.2	
Ethylbenzene	3.43	3.21	6.63	21.6	· ·
Xylenes (Total)	4.87	4.62	5.27	22.0	
TPH as Gasoline	7620	< 100.	NA	20	•

# Notes:

 ${\it NA}$  - The concentration of the analyte is less than the reporting limit.