

February 8, 1995

Chevron U.S.A. Products Company 6001 Bollinger Canyon Rd., Bldg. L P.O. Box 5004 San Ramon, CA 94583-0804

Site Assessment & Remediation Group Phone (510) 842-9500

Ms. Jennifer Eberle Alameda County Health Care Services Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Re: Former Gulf Service Station #0006 460 Grand Avenue, Oakland, CA

Dear Ms. Eberle:

Enclosed is the quarterly Ground Water Sampling report dated January 26, 1995, prepared by our consultant Sierra Environmental Services for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in all ground water monitor wells at concentrations between 2.6 and 2.9 ppb. Depth to ground water was measured at approximately 4.6 to 5.3 feet below grade and the direction of flow is to the south.

As we discussed, Chevron's consultant is currently preparing a work plan for further assessment work. We anticipate forwarding this work plan to your office shortly. Chevron will continue to monitor and sample this site quarterly.

If you have any questions or comments, please do not hesitate to call me at (510) 842-8134.

Sincerely,

CHEVRON U.S.A. PRODUCTS COMPANY

Mak A. Muslen

Mark A. Miller

Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Jon Robbins - CHVPK/V1156

Ms. B.C. Owen

Mr. John C. Gibson Adams & Gibson 160 Sansome Street, Suite 1200

San Francisco, CA 94104-3718

Filo: GULF6 QM3



January 26, 1995

Mark Miller Chevron USA Products Company P.O. Box 5004 San Ramon, CA 94583

Re: Former Gulf Service Station #0006

460 Grand Avenue Oakland, California SES Project #1-382-04

Dear Mr. Miller:

This report presents the results of the quarterly ground water sampling for the fourth quarter of 1994 at former Gulf Service Station #0006, located at 460 Grand Avenue in Oakland, California. Three wells, C-1, C-2 and C-3 were sampled (Figure 1).

On December 12, 1994, SES personnel visited the site. Water level measurements were collected in all site wells and all wells were checked for the presence of free-phase hydrocarbons. Free-phase hydrocarbons were not present in any of the site wells. Water level data are shown in Table 1 and ground water elevation contours are included on Figure 1.

The ground water samples were collected on December 12, 1994 in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). The field water sampling forms for this event are included. All analyses were performed by Superior Precision Analytical, Inc. of Martinez, California. Analytic results for ground water are presented in Table 1. The chain of custody document and laboratory analytic reports are attached. SES is not responsible for laboratory omissions or errors.

Thank you for allowing us to provide services to Chevron. Please call if you have any questions.

Sincerely,

Sierra Environmental Services

Richard E. (Rick) Hilton

Staff Environmental Scientist

Chris J. Bramer

Professional Engineer #C48846

REH/CJB/lmo 38204QM.JA5

Attachments

Figure Table

SES Standard Operating Procedure

Field Water Sampling Forms

Chain of Custody Document and Laboratory Analytic Reports

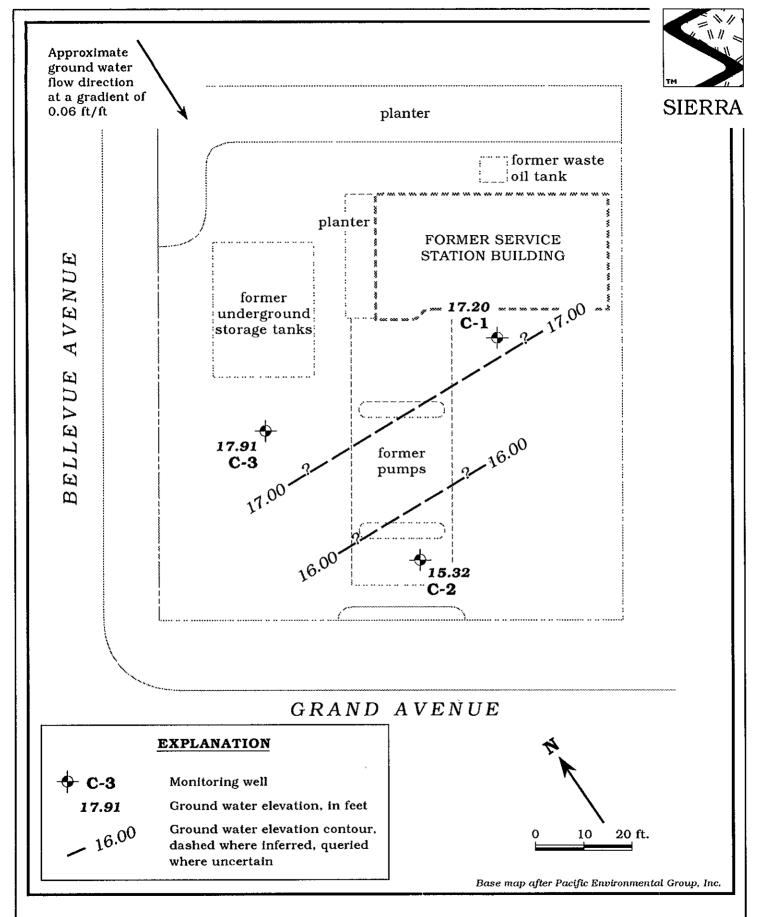


Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map – December 12, 1994 – Former Gulf Service Station #0006, 460 Grand Avenue, Oakland, California



Table 1. Water Level Data and Ground Water Analytic Results - Former Gulf Service Station #0006, 460 Grand Avenue, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness*	Analytic Method	TPPH(G)	В	T ppb-	E 	X
<del> </del>	· · · · · · · · · · · · · · · · · · ·			(ft)						
C-1/	12/16/92	5.68	16.80	0	8015/8020 <sup>2,3,4,5</sup>	<50	<0.5	<0.3	<0.3	<0.4
22.48 <sup>1</sup>	6/22/94	5.55	16.93	0	8015/8020	<50	<0.5	< 0.5	<0.5	< 0.5
	9/26/94	6.07	16.41	0	8015/8020	<50	< 0.5	< 0.5	< 0.5	< 0.5
	12/12/94 🗸	5.28	17.20	0	8015/8020	<50 /	2.9 _	3.8	<0.5	<0.5
C-2/	12/16/92	7.49	13.00	0	8015/8020 <sup>2,3,6,7</sup>	640	63	83	37	90
20.49¹	6/22/94	5.48	15.01	0	8015/8020	200	2.8	4.5	1.5	15
	9/26/94	6.02	14.47	0	8015/8020	<50	1.1	1.1	< 0.5	0.5
	12/12/94	5.17	15.32	0	8015/8020	77 /	2.8	4.6	3.4	15
C-3/	12/16/92	5.17	17.34	0	8015/8020 <sup>2,3,5,8</sup>	<50	<0.4	<0.3	<0.3	<0.4
22.51 <sup>1</sup>	6/22/94	5.10	17.41	0	8015/8020	140	5.6	3	4.2	4.4
	9/26/94	5.66	16.85	0	8015/8020	51	4.2	4.2	0.7	1.5
	12/12/94	4.60	17.91	0	8015/8020	<50 /	2.6	3.6	1.1	4.2
Trip Blank										
TB-LB	6/22/94				8015/8020	<50	< 0.5	<0.5	< 0.5	< 0.5
	9/26/94				8015/8020	<50	<0.5	< 0.5	< 0.5	<0.5
	12/12/94				8015/8020	<50	<0.5	<0.5	< 0.5	<0.5



Table 1. Water Level Data and Ground Water Analytic Results - Former Gulf Service Station #0006, 460 Grand Avenue, Oakland, California (continued)

## EXPLANATION:

DTW = Depth to water

TOC = Top of casing elevation

GWE = Ground water elevation

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

ppb = Parts per billion

--- = Not analyzed/not applicable

## ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)

8020 = EPA Method 8020 for BTEX

### NOTES:

Water level data and analytic results prior to June 22, 1994 were compiled from the subsurface investigation report prepared for Chevron by Pacific Environmental Group, January 15, 1993.

# NOTES: (continued)

Analytic Methods prior to 1994 are assumed to be 8015/8020.

- \* Product thickness was measured with an MMC flexi-dip interface probe on and after June 22, 1994.
- <sup>1</sup> TOC elevation is actually top of box elevation.
- <sup>2</sup> TPH(D) was also analyzed but not detected at detection limits of 50 ppb.
- Motor oil was also analyzed but not detected at detection limits of 200 ppb.
- Cadmium, chromium, lead, nickel and zinc were also analyzed but not detected at detection limits of 0.005, 0.01, 0.05, 0.02, and 0.01 ppm, respectively.
- Analysis by EPA method 8010 for Halogenated Volatile Organic Compounds (HVOCs) was also performed. HVOCs were not detected at detection limits of 0.2 to 4.0 ppb.
- <sup>6</sup> Cadmium, chromium, lead, nickel and zinc were also analyzed. Chromium, Nickel and zinc were detected at 0.05, 0.08 and 0.08 ppm, respectively. Other metals not detected.
- Analysis by EPA method 8010 for HVOCs was also performed. 1,2-Dichloroethane was detected at 3.5 ppb. Other HVOCs were not detected at detection limits of 0.2 to 4.0 ppb.
- 8 Cadmium, chromium, lead, nickel and zinc were also analyzed. Chromium, lead, nickel and zinc were detected at 0.19, 0.07, 0.36 and 0.38 ppm, respectively. Cadmium was not detected at detection limits of 0.005 ppm.

38204T.WLG



# SES STANDARD OPERATING PROCEDURE GROUND WATER SAMPLING

The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is checked for the presence of free-phase hydrocarbons using an MMC flexi-dip interface probe. Product thickness (measured to the nearest 0.01 foot) is noted on the sampling form. Water level measurements are also made using either a water level meter or the interface probe. The water level measurements are also noted on the sampling form.

Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, pH or conductivity do not exceed ±0.5°F, 0.1 or 5%, respectively).

The purge water is taken to Chevron's Richmond Refinery for disposal.

Ground water samples are collected from the wells with Chevron designated disposable bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Prepreserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4°C) for transport under chain of custody to the laboratory.

The chain of custody form includes the project number, analysis requested, sample ID, date analysis and the SES field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

A trip blank accompanies each sampling set, or 5% trip blanks are included for sets of greater than 20 samples. The trip blank is analyzed for some or all of the same compounds as the ground water samples.



# WATER SAMPLING DATA

b Name	in arm	ditue, val	(	Job Number_	1-382-	<u>-04</u>	Sampler	<u> </u>
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ll Number		Decorintion	-	. •			Well Depth (sp	ec.)
pth to Wa stial height slume to be arged With imped or I ater level	of water in purged  Bailed Dry?	Description n casing Yes		Well Depth (s Volume Sampled Will Time Percer	_ gallons	gallons gallon	r = well rat  h = ht of w  vol. in cyl.  7.48 gal/fi  V <sub>s</sub> " casing  V <sub>s</sub> " casing  V <sub>4</sub> " casing  V <sub>4</sub> " casing  V <sub>4</sub> " casing	
HEMICAL		1 - 37-1		Cumulative		1	Specific Cor	nductance
	Time	Purge Vol.	ume	(gal.)	pН	Temp (°C)	Measurement	x umhos/cn
Start	Stop	1			-			
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Vater color Description	of sedime	nts or materi	al in sai					
Vater color Description Additional	of sedime Comments # of	nts or materi	al in sai	d Preser	vative	Refrig.	Lab (Init)	
Vater color Description Additional Sample	# of Cont.	nts or materi	al in sai	d Preserval (tyr	vative be)		(Init)	Analysis Requested
Vater color Description Additional	of sedime Comments # of	nts or materi	Filtere (size, t	d Preser	vative be)	Refrig. (Y/N)		Requested



# WATER SAMPLING DATA

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							V <sub>s</sub> " casing	g = 2.61 gal/ft
CHEMICAL	DATA Time	Purge Vol	lume	Cumulative				nductance
Start	Stop	(gal.)		(gal.)	pH	Temp (°C)	117 CAD GI GIII GIII	x umhos/cm
12-34	1236	3		3	9,7	Ghi	580	
	1239	2.5		5.5	0.9	635	)	
	1279	٥, ٥	>	8	9.7	63.	7	
					-			
Water color Description	of sedime	nts or mater	ial in s	Od sample: <u>\</u> \မှ	or		<u> </u>	
Sample ID	# of Cont.	Container Type	Filter		rvativ <b>e</b> ype)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
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							/tesson lined ca	



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	Time	Purge Vol	ume	Cumulative				nductance
Start	Stop	(gal.)		(gal.)	pН	Temp (°C)	Measurement	x umhos/cm
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Vater color vescription dditional Sample	of sediments	ents or materies:  Container	ial in s	Odo sample: Mod	reverte,	TCY Refrig.	Lab (Init)	Analysis Requested
Vater color Description Additional	of sediments	ents or materi	ial in s	odo sample: wod  red Preser , u) (ty	vative	Tan	Lab	Requested

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# WATER SAMPLING DATA

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Purge		(gal.)		(gal.)	pН	Temp (°C)	Measurement	x umhos/cm
Start	Stop			7	31,8	613	940	
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	1-1-1	1 2		6				
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			8								•		Analyse	To B	• Perto	med ?					Note:	,,,,
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and secretary the second second



A member of ESSCON Environmental Support Service Consortium

Sierra Environmental

Attn: ED MORALES

Project 1-382-04 Reported on December 22, 1994

TOTAL PETROLEUM HY	DROCARBONS
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LAB #	Sample ID	Sampled	Analyzed	Matrix
80245-01	TB-LB	12/12/94	12/19/94	Water
80245-02	C-1	12/12/94	12/19/94	Water
80245-03	C-3	12/12/94	12/19/94	Water
80245-04	C-2	12/12/94	12/19/94	Water

# RESULTS OF ANALYSIS

Laboratory Number:	80245-01	80245-02	80245-03	80245-04	
Gasoline Range	ND<50	ND<50	ND<50/	77 (	
Benzene	ND<0.5	2.9	2.6 /	2.8 /	
Toluene	ND<0.5	3.8	3.6	4.6	
Ethyl Benzene	ND<0.5	ND<0.5	1.1	3.4	
Total Xylenes	ND<0.5	ND<0.5	4.2	15	
Concentration:	ug/L	ug/L	ug/L	ug/L	

Page 1 of 2

Certified Laboratories –



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# CERTIFICATE OF ANALYSIS

## TOTAL PETROLEUM HYDROCARBONS

QA/QC Information Laboratory Number: 80245

NA - Analysis NOT required

ND - Not Detected above quantitation limit

Matrix: Water

Analyte	Spike Recovery	RPD	Control Limits
Gasoline_Range	94/96	2	65-135
Benzene	74/77	4	65-135
Toluene	103/107	4	65-135
Ethyl Benzene	99/103	4	65-135
Total Xylenes	102/107	5	65-135

Senior Chemist Account Manager

Page 2 of 2

Certified Laboratories -

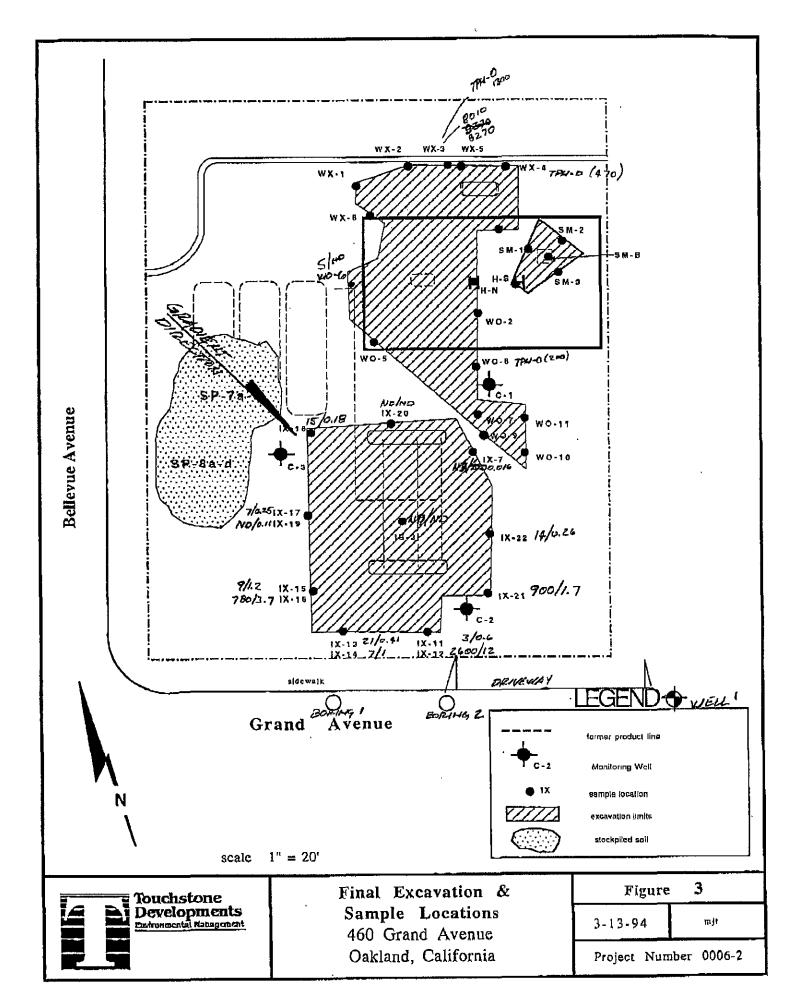
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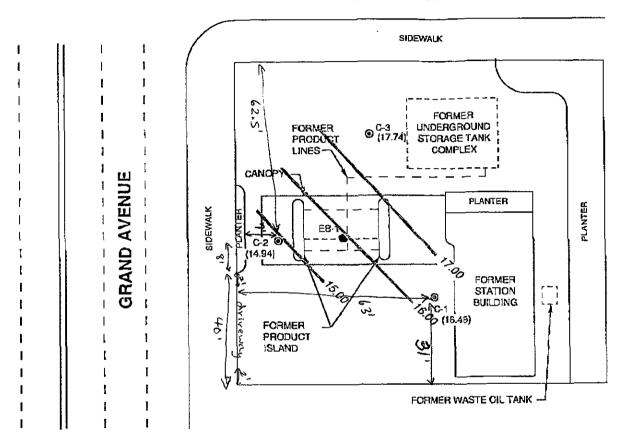
Date:	1/9/95	Chevron U.S.A. Products Company 6001 Bollinger Canyon Road Building L San Ramon, CA 94583
To:	JENNIFER EBERLE	P.O. Box 5004 San Ramon, CA 94583-0804
	ACHCS	Marketing — Northwest Region Voice 510 842-8134
·	337-9335	Fax \$10 842-8252
From:	Mark Miller	
	Site Assessment and Remediation Engineer	
Re:	GULFG: 460 GRAHO, CAKLAHO	
Messa	ge: Haze's Frauer 3 with Propos	SEO BALMES
	AMP WELLS. NOTE: ON PACIFIC'S	
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CHEVRON PRODUCTS

4 Pages including cover sheet



# **BELLEVUE AVENUE**



### LEGEND

- €-1 @ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- EB-1 EXPLORATORY SOIL BORING LOCATION AND DESIGNATION

(17.74) GROUNDWATER ELEVATION IN FEET - MSL, 4-23-93

GROUNDWATER ELEVATION CONTOUR IN FEET -MSL, 4-23-93



APPROXIMATE DIRECTION OF GROUNDWATER FLOW

APPROXIMATE GRADIENT = 0.07

MAP TAKEN FROM THEADWELL & ASSOCIATES, INC.

'ACIFIC NVIRONMENTAL	SCALE	FORMER GULF SERVICE STATION 0006 460 Grand Avenue at Bellevue Avenue Oakland, California			
ROUP, INC.	0 20 40 FEET	GROUNDWATER ELEVATION CONTOUR MAP	PROJECT: 325-31.01		

Chevron Products Company 8001 Bollinger Canyon Rd. P O. Box 6004, San Ramon, CA 94583-0904 **Chevron** 

Address Correction Requested
Mr. Don Hwang
Hazardous Materials Specialist
Alameda County health Care Services
Department of Environmental Health
1131 harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Waiting for well destruction does.

WM