October 25, 1993
Project No. RC0136.003

Mr. Safa Toma
Source Control Division
East Bay Municipal Utility District
EBMUD Mail Slot #702
P.O. Box 24055
Oakland, California 94623

SUBJECT: Quarterly Groundwater Treatment System Compliance Report, Former Chevron Service Station #9-0020, 1633 Harrison Street, Oakland, California.

Dear Mr. Toma:

Geraghty & Miller, Inc. (Geraghty & Miller) is submitting this system compliance report for the reporting period from July 1 through September 30, 1993, on behalf of Chevron U.S.A. Products Company (Chevron).

System samples were collected during this reporting period on July 15 and September 9, 1993. The system was not operated between July 22 and September 9. The samples were collected from the system influent, intermediate (between Carbon Vessels 1 and 2), and the effluent immediately prior to discharge to the sewer (Effluent). System startup occurred on July 14, 1993, with notification to and concurrence from Marie Kulka of the East Bay Municipal Utility District (EBMUD). Because of the extremely low flow rate, it was agreed by Ms. Kulka and Jeff Stivers of Geraghty & Miller that a representative sample of the flow rate could not be collected until the following day. Therefore, Geraghty & Miller visited the site the following day, July 15, 1993, to collect the first compliance sample. During this visit, Marie Kulka also collected water samples from the system. Operation continued through approximately July 22, 1993, when the system stopped pumping water due to a transfer sump pump failure. This sump pump was replaced on August 30, 1993, and the system was restarted and sampled again on September 9, 1993. Further sampling of the system will continue on a monthly basis, per permit requirements.

All samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) (USEPA Method 8015, modified) and benzene, toluene, ethylbenzene, and xylenes (BTEX) (USEPA Method 8020). All samples were submitted to GTEL Environmental Laboratories, a USEPA-

certified laboratory in Concord, California, for analysis. Copies of the certified laboratory reports and the chain-of-custody documentation are included in Attachment 1.

The volume of water treated and discharged for this reporting period was 407 gallons. A summary of the flow totalizing meter readings is presented in Table 1. Analytical results are presented in Table 2.

The system influent analytical results and system flow rate are used to calculate the carbon loading. Based upon the highest influent TPH-G concentration (15,000 parts per billion) and the total flow to date, with a carbon loading efficiency of 5%, the amount of spent carbon is calculated as follows:

$$\frac{4{,}400\ \mu g/L\ \text{TPH-G}}{1 \times 10^9\ \mu g/L\ H_2O} \times 407\ \text{gal} \times \frac{8.3\ \text{lb}\ H_2O}{\text{gal}\ H_2O} = 0.015\ \text{lb TPH-G processed}$$

Carbon loading (5% loading of TPH at low concentrations):

$$0.015\ \text{lb TPH-G processed} \times \frac{100\ \text{lb carbon}}{5\ \text{lb TPH-G}} = 0.297\ \text{lb carbon used}$$

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Geraghty & Miller is submitting this information on behalf of Chevron U.S.A. Products Company. If you have any questions, please do not hesitate to contact the undersigned at (510) 233-3200.

Sincerely,
GERAGHTY & MILLER, INC.

Kent O'Brien
Project Scientist/Project Manager

Attachments:	Table 1	Flow Totalizer Readings
	Table 2	Groundwater Analytical Results
	Attachment 1	Copies of Certified Laboratory Reports and Chain-of-Custody Documentation

cc: Mark Miller, Chevron U.S.A. Products Company

Project No. RC0136.003

Table 1: **Flow Totalizer Readings**
Former Chevron Service Station #9-0020
1633 Harrison Street, Oakland, California.

Date	Totalizer Reading (Gallons)		Gallons Discharged This Period	Cumulative Gallons	Days Since Previous Reading	Average Discharge Rate (GPM)	Notes
1-Jul-93	0		0	0		0	System nonoperational
14-Jul-93	2,059	(a)	0	0		0	System startup
19-Jul-93	2,218		159	159	5	0.02	O&M, collect air samples
22-Jul-93	2,218		0	159	3	0.00	Shut off system; sump pump failure
9-Sep-93	2,466		248	407	49	0.004	Restart system; collect GW system samples
14-Oct-93	2,492		26	433	35	0.001	Collect GW system samples
17-Nov-93	2,501		9	442	34	0.000	Collect GW system samples
12-Dec-93	2,521		20	462	25	0.001	System off on arrival; no samples collected
							55 gal. discharged this reporting period

(a) Meter not zeroed when system began operation.

GPM = Gallons per minute

Table 2: Groundwater Analytical Results
Former Chevron Service Station #9-0020
1633 Harrison Street, Oakland, California.

Sample	Date	TPH as Gasoline (µg/L) (a)	Benzene (µg/L) (b)	Toluene (µg/L) (b)	Ethylbenzene (µg/L) (b)	Xylenes (µg/L) (b)
Influent	15-Jul-93	4,400	330	260	170	900
	9-Sep-93	220	6	11	9	56
	14-Oct-93	100	7	4	2	15
	17-Nov-93	390	12	8	5	40
Intermediate	15-Jul-93	NS	NS	NS	NS	NS
	9-Sep-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	14-Oct-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	17-Nov-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
Effluent	15-Jul-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	9-Sep-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	14-Oct-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	17-Nov-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
Trip Blank	15-Jul-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	9-Sep-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	14-Oct-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	17-Nov-93	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)

(a) Analyzed by USEPA Method 8015, modified.
(b) Analyzed by USEPA Method 8020.

TPH Total petroleum hydrocarbons
µg/L Micrograms per liter
ND( ) Laboratory method detection limit; limit in parentheses
NS Not sampled

No samples were collected in December 1993; the groundwater treatment system was off.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080-C Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*
(510) 825-0720 (FAX)

Client Number: GTY01CHV08
Consultant Project Number: RC0136.003
Facility Number: 9-0020
Project ID: 1633 Harrison St., Oakland
Work Order Number: C3-09-0213

September 24, 1993

Kent O'Brien
Geraghty & Miller, Inc.
1050 Marina Way South
Richmond, CA 94804

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 09/10/93.

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.

GTEL is certified by the California State Department of Health Services, Laboratory certification number E1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

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

Sincerely,

GTEL Environmental Laboratories, Inc.

Ron Hartline

Asst Lab Director for

Eileen F. Bullen
Laboratory Director

Client Number: GTY01CHV08
Consultant Project Number: RC0136.003
Facility Number: 9-0020
Project ID: 1633 Harrison St., Oakland
Work Order Number: C3-09-0213

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015[a]

GTEL Sample Number		01	02	03	04
Client Identification		INFLUENT	INTERMEDIATE	EFFLUENT	TB-LB
Date Sampled		09/09/93	09/09/93	09/09/93	09/09/93
Date Analyzed		09/23/93	09/23/93	09/23/93	09/23/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	6	<0.5	<0.5	<0.5
Toluene	0.5	11	<0.5	<0.5	<0.5
Ethylbenzene	0.5	9	<0.5	<0.5	<0.5
Xylene, total	0.5	56	<0.5	<0.5	<0.5
BTEX, total	--	82	--	--	--
TPH as Gasoline	50	220	<50	<50	<50
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		102	110	99.7	102

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: GTY01CHV08
Consultant Project Number: RC0136.003
Facility Number: 9-0020
Project ID: 1633 Harrison St., Oakland
Work Order Number: C3-09-0213

Table 1 (Continued)

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015[a]

GTEL Sample Number		S092293			
Client Identification		METHOD BLANK			
Date Sampled		--			
Date Analyzed		09/22/93			
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5			
Toluene	0.5	<0.5			
Ethylbenzene	0.5	<0.5			
Xylene, total	0.5	<0.5			
BTEX, total	--	--			
TPH as Gasoline	50	<50			
Detection Limit Multiplier		1			
BFB surrogate, % recovery		102			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: GTY01CHV08
Consultant Project Number: RC0136.003
Facility Number: 9-0020
Project ID: 1633 Harrison St., Oakland
Work Order Number: C3-09-0213

QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	C3090209-4	20.0	ug/L	122	118	3.3	55 - 129
Toluene	C3090209-4	20.0	ug/L	106	110	3.7	72 - 149
Ethylbenzene	C3090209-4	20.0	ug/L	114	107	6.3	75 - 138
Xylene, total	C3090209-4	60.0	ug/L	124	110	12.0	74 - 147

GTEL ENVIRONMENTAL LABORATORIES, INC.

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's Facility Number 9-0020
Facility Address 1633 Harrison St Oakland
Consultant Project Number RC 0136.003
Consultant Name Geraghty & Miller, Inc
Address 1990 Marina Way South Richmond CA
Project Contact (Name) Kent O'Brien
(Phone) 510-233-3200 (Fax Number) 510-233-3209

Chevron Contact (Name) [redacted] Mark Miller
(Phone) 510-842-9581
Laboratory Name GTEL (800-544-3422)
Laboratory Release Number 922470
Samples Collected by (Name) Kent O'Brien
Collection Date 9/9/93
Signature

SEAL INTACT ON ICE AT 6°C 9/10/93 BEQ

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)	BTEX + TPH GAS (8020 + 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 (TCLP or AA)					Remarks
Influent	01	2	W	G		HCl		✓												
Intermediate	02	2	W	G		HCl		✓												
Effluent	03	2	W	G		HCl		✓												
TB-LB	04	1	W					✓												

N/A 9/10/93

C8090213

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	[illegible]	9/10/93 13:00	Ellen Weber	GTEL	9-10-93 1300
Ellen Weber	GTEL	9/10/93 1415			
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time
			Darlene Belskey		9/10/93 14:15

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

COC-3096/03 01/MCH

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

4080 Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 Inside CA
(800) 423-7143 Outside CA
(510) 825-0720 FAX

Client Number: GTY01CHV08
Consultant Project Number: RC0136.003
Facility Number: 9-0020
Project ID: 1633 Harrison St. Oakland
Work Order Number: C3-07-0241

July 20, 1993

Kent O'Brien
Geraghty & Miller, Inc.
1050 Marina Way South
Richmond, CA 94804

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 07/16/93.

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.

GTEL is certified by the California State Department of Health Services, Laboratory certification number E1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

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

Sincerely,

GTEL Environmental Laboratories, Inc.

Eileen F. Bullen

Eileen F. Bullen
Laboratory Director

Client Number: GTY01CHV08
Consultant Project Number: RC0136.003
Facility Number: 9-0020
Project ID: 1633 Harrison St. Oakland
Work Order Number: C3-07-0241

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015[a]

GTEL Sample Number		01	02	03	S071793
Client Identification		A INFLUENT	C EFFLUENT	TB-LB	METHOD BLANK
Date Sampled		07/15/93	07/15/93	07/15/93	--
Date Analyzed		07/19/93	07/18/93	07/17/93	07/17/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	330	<0.5	<0.5	<0.5
Toluene	0.5	260	<0.5	<0.5	<0.5
Ethylbenzene	0.5	170	<0.5	<0.5	<0.5
Xylene, total	0.5	900	<0.5	<0.5	<0.5
BTEX, total	--	1700	--	--	--
TPH as Gasoline	50	4400	<50	<50	<50
Detection Limit Multiplier		10	1	1	1
BFB surrogate, % recovery		119	96.8	104	104

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: GTY01CHV08
Consultant Project Number: RC0136.003
Facility Number: 9-0020
Project ID: 1633 Harrison St. Oakland
Work Order Number: C3-07-0241

QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	C3070118-06	20.0	ug/L	110	107	2.8	55 - 129
Toluene	C3070118-06	20.0	ug/L	107	104	2.8	72 - 149
Ethylbenzene	C3070118-06	20.0	ug/L	103	101	1.9	75 - 138
Xylene, total	C3070118-06	60.0	ug/L	106	104	1.9	74 - 147

GTEL ENVIRONMENTAL LABORATORIES, INC.

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☒ 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: 9-0020
Facility Address: 1633 Harrison St Oakland
Consultant Project Number: RC 0136.003
Consultant Name: Geraghty & Miller, Inc.
Address: 1050 Marina Way South Richmond
Project Contact (Name): Kent O'Brien
(Phone) 510-233-3200 (Fax Number) 510-233-3204

Chevron Contact (Name): Nancy Vukelich
(Phone) 510-842-9581
Laboratory Name: GTEL
Laboratory Release Number: 9224670
Samples Collected by (Name): Jeff Stivers
Collection Date: 7/15/93
Signature:

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)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 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)						Remarks
A-influent	01	3	W	G		HCl	Y	X													SEALS INTACT ON ICE AT 8°C 7/16/93
C-effluent	02	2	W	G		HCl	Y	X													C3070241
TB-LB	03	1	W			HCl		X													

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	GHM	7-16 1145		GTEL	7-16-93 1145
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	GTEL	7-16-93 12:40			
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
					7/17/93

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
Other Contract