Chevron U.S.A. Products Company
2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

Marketing Department

May 13, 1992

Ms. Pamela Evans
Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station No. 9-6607
2340 Otis Drive, Alameda, California

Dear Ms. Evans :

Enclosed is the quarterly groundwater monitoring and sampling report dated May 5, 1992 for the above referenced site.

During this sampling period, samples obtained from wells, MW-1, MW-3, and MW-4, were again nondetect (ND) for total petroleum hydrocarbon as gasoline (TPH-G), benzene, toluene, ethylbenzene, and xylenes (BTEX) while MW-2 had 180 ppb TPH-G, 9.6 ppb benzene, and 0.8 ppb ethylbenzene. Depth to water ranged from 7.12 feet to 8.07 feet.

The groundwater elevation map does not have the direction of groundwater but does have the groundwater elevations. The reason for omitting the direction of groundwater according to the consultant was the slight variation in elevation made it difficult to accurately determine the flow of groundwater.

If you have any questions or comments, please feel free to contact me at (510) 842-8752.

Sincerely,

Chevron U.S.A., Inc.

Kenneth Kan

Kenneth Kan
Engineer

LKAN/MacFile 9-6607R1

Enclosure

cc : Mr. Eddie So, RWQCB-San Francisco Bay Area
2101 Webster Street, Suite 500, Oakland, CA 94612

Mr. Steve Willer, Chevron U.S.A. Products Co.

GERAGHTY
& MILLER, INC.
Environmental Services

Ground Water *Engineering* *Hydrocarbon* *Remediation* *Education*

May 5, 1992
Project No. RC05003

MAY 12 '92 T.L.H.

Mr. Ken Kan
Chevron U.S.A. Products Company
West Central Marketing
2410 Camino Ramon
San Ramon, California 94583-0804

SUBJECT: April 1992 Quarterly Ground-Water Monitoring and Sampling Report, Chevron Service Station #9-6607, 2340 Otis Drive, Alameda, California.

Dear Mr. Kan:

This letter presents the quarterly ground-water sampling results for the above-referenced Chevron U.S.A. Products Company (Chevron) service station. The scope of work for this project was presented to Chevron in a previous letter from Geraghty & Miller, Inc. (Geraghty & Miller) dated November 26, 1991.

FIELD AND LABORATORY PROCEDURES

Ground-water monitoring was performed on April 20, 1992. Prior to sampling, depth-to-water measurements were obtained and each well was checked for the presence of liquid-phase hydrocarbons. Liquid-phase hydrocarbons were not observed during this quarterly sampling event. A minimum of three casing volumes of water was purged from each well prior to sampling, using a surface diaphragm pump. Cumulative ground-water monitoring data are presented in Table 1. All equipment that entered the wells was washed in a solution of Micro™ (a nonphosphate detergent) and water, then triple rinsed in deionized water prior to sampling each well. Following purging, ground-water samples were collected using a polyethylene disposable bailer. A new bailer was used for each well. The purged water was stored in 55-gallon drums and retained on-site for subsequent disposal by Erickson, Inc. of Richmond, California, under contract to Chevron.

Ground-water samples for laboratory analysis were placed in the appropriate United States Environmental Protection Agency (USEPA) approved containers, placed on ice, and transported to Superior Precision Analytical, Inc., located in Martinez, California. The water samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (USEPA

Method 8015, modified); benzene, toluene, ethylbenzene, and xylenes (BTEX) (USEPA Method 8020); and for oil and grease (Standard Method 503E).

RESULTS OF QUARTERLY SAMPLING

DEPTH TO WATER

The depth-to-water measurements are presented in Table 1. The ground-water elevations are presented in Figure 1. Because the maximum difference in ground-water elevations across the site is only 0.10 foot, which indicates that the ground-water surface is relatively flat (<0.001 foot per foot) within the area of the monitoring wells, small variations in the depth to water in any one well can significantly affect the apparent direction of ground-water flow. Therefore, the ground-water surface elevation has not been contoured. Regional direction of ground-water flow is toward San Francisco Bay to the west of the site.

GROUND-WATER ANALYTICAL RESULTS

The cumulative ground-water analytical results are presented in Table 2. Copies of the certified laboratory report and chain-of-custody documentation are included in Attachment 1.

Geraghty & Miller is pleased to be of service to Chevron. If you have any questions regarding this report, please call the undersigned at (510) 233-3200.

Sincerely,
GERAGHTY & MILLER, INC.

Thomas M. Howard
Senior Geologist/Project Manager

Gary W. Keyes, P.E.
Principal Engineer/Associate

Enclosures:	Table 1	Cumulative Ground-Water Monitoring Data
	Table 2	Cumulative Ground-Water Analytical Results
	Figure 1	Ground-Water Elevation Map
Attachments:	Attachment 1	Copies of Certified Analytical Report and Chain-of-Custody Documentation

Table 1: Cumulative Ground-Water Monitoring Data
Chevron Service Station #9-6607
2340 Otis Drive, Alameda, California.

Monitor Well	Date	TOC Elevation (feet)	DTW (feet)	DTB (feet)	Actual Purge Volume (gallons)	Water Elevation (feet)	LPH Thickness (feet)
MW-1	21-Aug-91	7.12	6.10	24.60	36	1.02	---
	9-Jan-92		3.96		42	3.16	---
	20-Apr-92		3.90		42	3.22	---
MW-2	21-Aug-91	7.43	6.40	24.90	14	1.03	---
	9-Jan-92		4.23		41	3.20	---
	20-Apr-92		4.17		41	3.26	---
MW-3	21-Aug-91	8.07	7.10	24.95	35	0.97	---
	9-Jan-92		5.03		39	3.04	---
	20-Apr-92		4.91		40	3.16	---
MW-4	21-Aug-91	7.85	6.85	20.85	12	1.00	---
	9-Jan-92		4.70		40	3.15	---
	20-Apr-92		4.64		24	3.21	---

TOC: Top of casing above mean sea level.
DTW: Depth to water below top of casing.
DTB: Depth to bottom below top of casing.
LPH: Liquid-phase hydrocarbons.
---: No liquid-phase hydrocarbons observed.

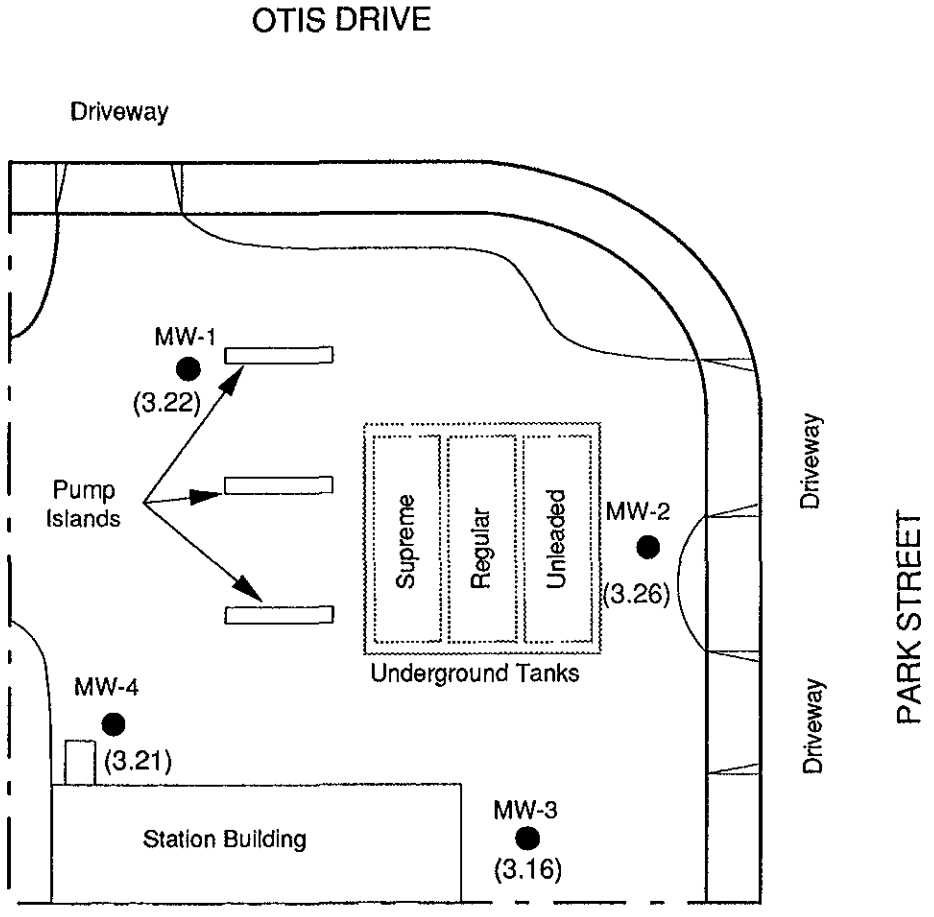
Table 2: Cumulative Ground-Water Analytical Results
Chevron Service Station #9-6607
2340 Otis Drive, Alameda, California.

Monitor Well	Date	TPH as gasoline (µg/L) (a)	Benzene (µg/L) (b)	Toluene (µg/L) (b)	Ethylbenzene (µg/L) (b)	Xylenes (µg/L) (b)	Oil & Grease (µg/L) (c)
MW-1	21-Aug-91	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	9-Jan-92	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND (<5000)
	20-Apr-92	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
MW-2	21-Aug-91	430	170.	0.9	1.	3.6	NA
	9-Jan-92	58(d)	16.	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND (<5000)
	20-Apr-92	180	9.6	ND(<0.5)	0.8	ND(<0.5)	NA
MW-3	21-Aug-91	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	9-Jan-92	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND (<5000)
	20-Apr-92	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
MW-4	21-Aug-91	ND(<50)	0.6	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<5000)
	9-Jan-92	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<5000)
	20-Apr-92	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<5000)

(a) Analyzed by USEPA Method 8015, modified.
(b) Analyzed by USEPA 8020.
(c) Analyzed by Standard Method 503E.
(d) Chromatogram reported as having a single peak in the gasoline range.

µg/L: Micrograms per liter.
ND: Below laboratory method detection limit.
NA: Not analyzed.

Water samples analyzed by Superior Precision Analytical, Inc., Martinez, California.



EXPLANATION

MW-4 ● Approximate Location of Monitor Well

Property line

(3.16) Ground-water elevation in feet above mean sea level, measured on April 20, 1992. Ground-water elevations not contoured. See text for explanation.

N

0 40

Scale feet

Reference: Blaine Tech Services, Inc. Report No. 910409-J-1

GERAGHTY & MILLER, INC.
Environmental Services

Project No. RC05000

GROUND-WATER ELEVATION MAP

Chevron Service Station #9-6607
2340 Otis Drive
Alameda, California

FIGURE
1

ATTACHMENT 1

COPIES OF CERTIFIED ANALYTICAL REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 13026
CLIENT: Geraghty & Miller Inc.
CLIENT JOB NO.: RC05003

DATE RECEIVED: 04/21/92
DATE REPORTED: 04/28/92

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
13026- 1	MW-1	04/20/92	04/22/92
13026- 2	MW-2	04/20/92	04/22/92
13026- 3	MW-3	04/20/92	04/22/92
13026- 4	MW-4	04/20/92	04/28/92

Laboratory Number:	13026 1	13026 2	13026 3	13026 4
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)			
OIL AND GREASE:	NA	NA	NA	ND<5000
TPH/GASOLINE RANGE:	ND<50	180	ND<50	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA
BENZENE:	ND<0.5	9.6	ND<0.5	ND<0.5
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ETHYL BENZENE:	ND<0.5	0.8	ND<0.5	ND<0.5
XYLENES:	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☒ No (7024)

Chain-of-Custody-Reco

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-6177
Facility Address 2340 Otis Drive, Alameda
Consultant Project Number RCD5003
Consultant Name Geraghty & Miller, Inc.
Address 1050 Marina Way South, Richmond, CA 94804
Project Contact (Name) Kate McCutchen
(Phone) 510/233-3200 (Fax Number) 510/233-3204

Chevron Contact (Name) Nancy Vukelich
(Phone)
Laboratory Name Superior - Martinez
Laboratory Release Number 542 4780
Samples Collected by (Name) Rick Spencer
Collection Date 4-20-92
Signature Rick Spencer

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)	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
MW-1		3	W	G	1600	HCL	YES	X								
MW-2		3	W	G	1610	HCL	YES	X								
MW-3		3	W	G	1620	HCL	YES	X								
MW-4		3	W	G	1630	HCL	YES	X	X	X						

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Rick Spencer	Geo Mine	4-21-92 1100	K. Ron	EXPRESS MT	1230 4-21-92
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) Cecilia G. Joaquin		Date/Time 4/21/92

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

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 13026

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = parts per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 503E:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA-SW846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L
Standard Reference: NA

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L
Standard Reference: 10/12/91

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L
Standard Reference: 04/07/92

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	04/02/91	5mg	90/88	2.2	50-125
Diesel	NA	NA	NA	NA	NA
Gasoline	04/07/92	200ng	96/98	2.0	76-111
Benzene	04/07/92	200ng	90/92	2.8	78-110
Toluene	04/07/92	200ng	85/87	2.3	78-111
Ethyl Benzene	04/07/92	200ng	82/84	3.0	78-118
Total Xylene	04/07/92	600ng	89/91	2.4	73-113

Richard Srna, Ph.D.
(for)
Laboratory Director