



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

92 12 29 11 11:00

December 29, 1992

Ms. Juliet Shin
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

**Re: Former Chevron Service Station #9-1153
3126 Fernside Boulevard, Alameda, CA**

Dear Ms. Shin:

Enclosed we are forwarding the quarterly Groundwater Monitoring and Sampling Activities report dated December 2, 1992, prepared by our consultant Groundwater Technology, Inc. for the above referenced site. As indicated in the report, groundwater samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in monitor wells C-1, MW-5, and MW-6 at concentrations of 11,000, 150, and 5,300 ppb, respectively. A parked car over monitor well MW-4 prevented sampling, however this well will be sampled during all future monitoring events. Depth to groundwater was measured at approximately 4.2 feet to 4.8 feet below grade, and the direction of flow is to the east.

Chevron is currently evaluating locations for additional wells to further delineate the extent of dissolved hydrocarbons in the ground water.

Chevron will continue to monitor and sample wells at this site and report findings on a quarterly basis. The ground water extraction system will also be evaluated for effectiveness in removing dissolved constituents in the ground water.

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

Very truly yours,
CHEVRON U.S.A. PRODUCTS COMPANY

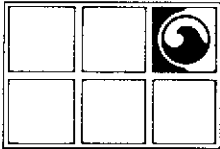
Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Eddy So, RWQCB-Bay Area
Mr. Tom Berry - Weiss Associates
Ms. B.C. Owen
File (9-1153 QM1)



Mr. Larry Bolten
State Farm Insurance
2509 Santa Clara Avenue
Alameda, CA 94501



GROUNDWATER TECHNOLOGY, INC.

4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387

FAX: (415) 685-9148

December 2, 1992

Project No. 020202803

Mr. Mark Miller
Chevron U.S.A. Inc.
2410 Camino Ramon
San Ramon, CA 94583-0804

**SUBJECT: GROUNDWATER MONITORING AND SAMPLING ACTIVITIES
CHEVRON SERVICE STATION NO. 9-1153
3126 FERNSIDE BOULEVARD, ALAMEDA, CALIFORNIA**

Dear Mr. Miller:

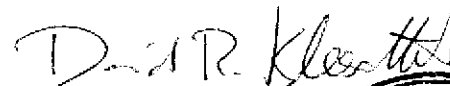
Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on October 13, 1992. Four of the five groundwater monitoring wells at this site were gauged to determine depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. ~~Separate-phase hydrocarbons were not detected in the monitoring wells. Monitoring well MW-4 was obstructed by a car.~~ A potentiometric surface map (Figure 1) and a summary of groundwater monitoring data (Table 1) are presented in Attachments A and B, respectively. After measuring the DTW, each monitoring well except monitoring well MW-4 was purged and sampled. The groundwater samples collected were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons (TPH)-as-gasoline. Results of the chemical analyses are summarized in Table 1. Laboratory report and chain-of-custody record are included in Attachment C. Monitoring well purge water was transported by Groundwater Technology, Inc. to the Chevron terminal in Richmond, California for recycling.

Groundwater Technology, Inc. is pleased to assist Chevron on this project. If you have any questions or comments, please call feel free to contact Groundwater Technology Concord office at (510) 671-2387.

Sincerely,
Groundwater Technology, Inc.
Written/Submitted by

Groundwater Technology, Inc.
Reviewed/Approved by

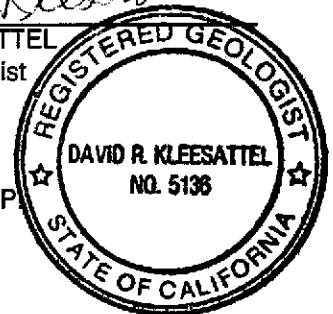

SANDRA L. LINDSEY
Project Manager


DAVID R. KLEESATTEL
Registered Geologist
No. 5136

Attachments: Attachment A - Figure 1
Attachment B - Table 1
Attachment C - Laboratory Report

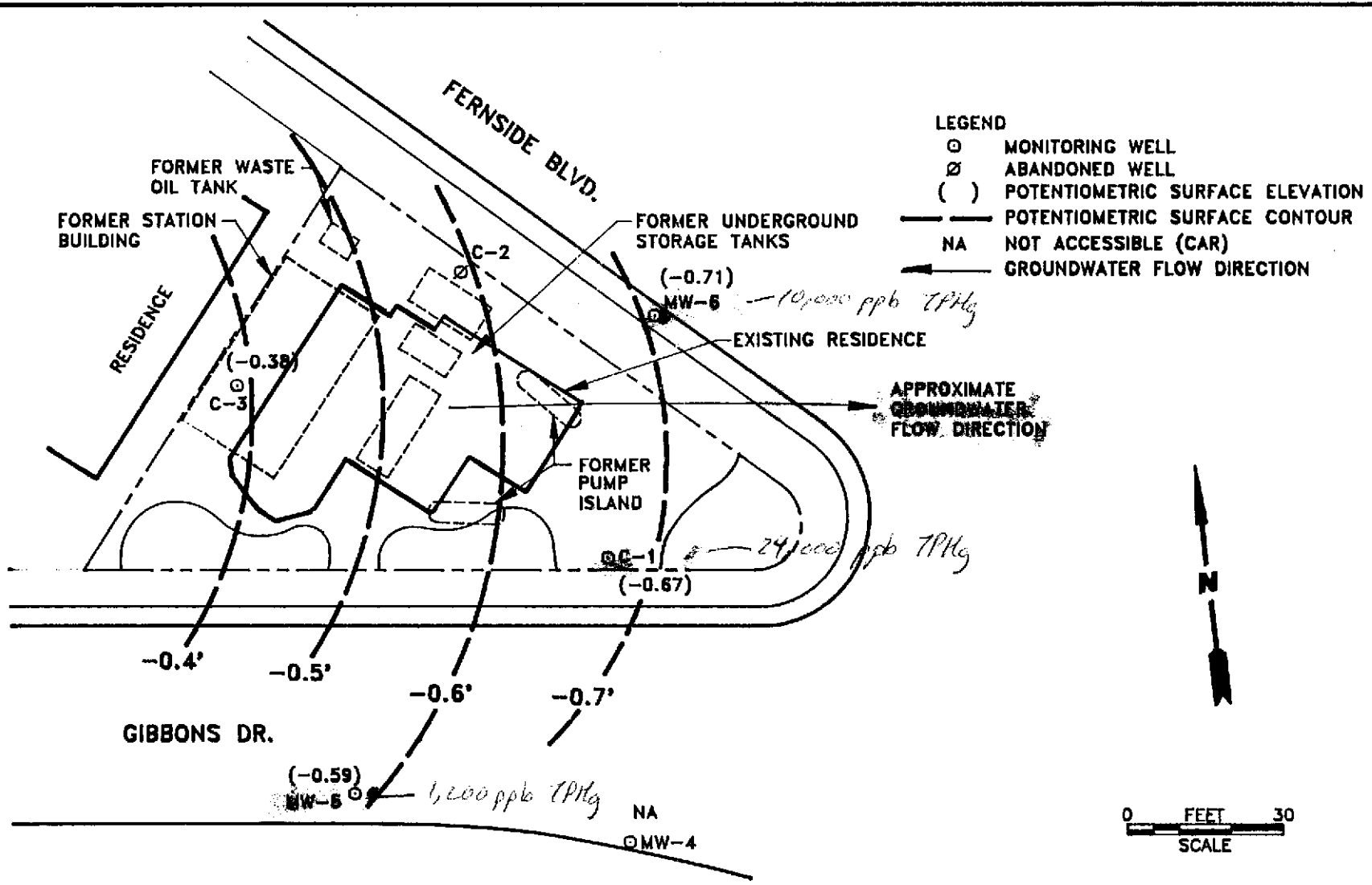
LR2803A1.NM


For:
John S. Gaines, V.P.
General Manager
West Region



ATTACHMENT A

FIGURE



 GROUNDWATER TECHNOLOGY		4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387		POTENTIOMETRIC SURFACE MAP (10/13/92)		
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-1153			LOCATION: 3126 FERNside BLVD. ALAMEDA, CALIFORNIA		REV. NO.: 1	DATE: 11/18/92
PM <i>SAW</i>	PE/RG	DESIGNED TW	DETAILED ML	ACAD FILE: PSM01392/SP692	PROJECT NO.: 020202747	FIGURE: 1

ATTACHMENT B
TABLE

TABLE 1
HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL RESULTS
CHEVRON SERVICE STATION NO 9-1583
3126 FERNSIDE BOULEVARD, ALAMEDA, CALIFORNIA

WELL ID/ ELEV	DATE	TPH-AS- GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (ft)	SPT (ft)	WTE (ft)
C-1	08/18/86	---	---	---	---	---	4.10	---	---
	09/04/86	15,000	760	820	1,500 ¹	---	---	---	---
	07/22/87	1,100	250	7	40 ¹	---	---	---	---
	05/03/89	6,900	3,800	190	229 ¹	---	4.46	---	---
	12/04/89	17,000	8,000	490	470 ¹	---	4.16	---	---
	02/14/90	19,000	12,000	990	1,050 ¹	---	3.64	---	---
	03/07/90	---	4,260	261	430 ¹	---	3.36	---	---
	09/06/91	21,000	10,000	100	240	560	4.43	0.00 ²	---
	12/15/91	20,000	4,900	43	110	330	4.78	0.00 ²	---
	03/03/92	13,000	5,800	730	340	1,200	2.39	0.00 ²	---
4.08	06/04/92	34,000	9,400	350	290	1,200	4.08	0.00	0.00
	10/13/92	---	---	98	280	530	4.75	0.00	-0.67
C-2	08/18/86	---	---	---	---	---	---	---	---
	09/04/86	1,100	49	18	84 ¹	---	---	---	---
	07/22/87	<50	1.8	<1.0	<4.0 ¹	---	---	---	---
	05/03/89	Abandoned	---	---	---	---	---	---	---

TABLE 1
HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL RESULTS
CHEVRON SERVICE STATION NO 9-1583
3126 FERNSIDE BOULEVARD, ALAMEDA, CALIFORNIA

WELL ID/ ELEV	DATE	TPH-AS- GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (m)	SPT (m)	WTE (m)	
C-3	08/18/86	--	--	--	--	--	4.00	--	--	
	09/04/86	50	3.2	5.4	5.8 ¹	--	--	--	--	
	07/22/87	<50	<0.5	<1.0	<4.0 ¹	--	--	--	--	
	05/03/89	<50	<0.5	<1.0	<2.0 ¹	--	4.15	--	--	
	12/04/89	<250	<0.5	<0.5	<0.5 ¹	--	4.24	--	--	
	02/14/90	<50	<0.5	<0.5	<0.5 ¹	--	3.57	--	--	
	03/07/90	NA	<5	<5	<5 ¹	--	3.31	--	--	
	09/06/91	<50	<0.5	<0.5	<0.5	<0.5	4.59	0.00 ²	--	
	12/15/91	<50	<0.5	<0.5	<0.5	<0.5	4.84	0.00 ²	--	
	03/03/92	<50	<0.5	<0.5	<0.5	<0.5	2.17	0.00 ²	--	
	4.41	06/04/92	<50	<0.5	<0.5	<0.5	<0.5	4.01	0.00	0.40
		10/13/92	<50	<0.5	<0.5	<0.5	<0.5	4.79	0.00	-0.38
MW-4 3.58	06/04/92	<50	0.8	<0.5	<0.5	<0.5	3.63	0.00	-0.05	
	10/13/92	--	--	--	--	--	--	--	--	
MW-5 3.61	06/04/92	560	110	0.5	37	2.2	3.25	0.00	0.36	
	10/13/92	---	---	<2.5	84	8.6	4.20	0.00	-0.59	
MW-6 3.85	06/04/92	210	54	<0.5	1.9	2.4	3.89	0.00	-0.04	
	10/13/92	---	---	<10	70	<10	4.56	0.00	-0.71	

**TABLE 1
HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL RESULTS
CHEVRON SERVICE STATION NO 9-1583
3126 FERNSIDE BOULEVARD, ALAMEDA, CALIFORNIA**

WELL ID/ ELEV	DATE	TPH AS- GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (ft)	SPT (ft)	WTE (ft)
TRIP	02/14/90	<50	<0.5	1.1	<0.5	<0.5	—	—	—
BLANK	09/06/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	12/15/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	03/03/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	06/04/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	10/13/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—

- = Not applicable/not sampled/not measured
- DTW = Depth to water
- SPT = Separate-phase hydrocarbon thickness
- WTE = Water table elevation in feet above mean sea level
- * = Gasoline range concentration reported. The chromatogram shows only a single peak in the gasoline range.
- 1 = Ethylbenzene and xylenes were reported together.
- 2 = Product thickness was measured with an MMC flexi-dip interface probe.

Prior to June 4, 1992 Top of casing elevations were unknown.
Analytical results in micrograms per liter (ug/L), or parts per billion

ATTACHMENT C
LABORATORY ANALYTICAL REPORT



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

GROUNDWATER TECHNOLOGY, INC.
Attn: GREGORY A. MISCHER

Project 020202803
Reported 10/26/92

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
86917- 1	TB-LB	10/13/82	10/21/92 Water
86917- 2	RBC3	10/13/92	10/21/92 Water
86917- 3	C3	10/13/92	10/22/92 Water
86917- 5	MW5	10/13/92	10/21/92 Water
86917- 7	MW6	10/13/92	10/21/92 Water
86917- 9	C1	10/13/92	10/21/92 Water

RESULTS OF ANALYSIS

Laboratory Number: 86917- 1 86917- 2 86917- 3 86917- 5 86917- 7

Gasoline:	ND<50	ND<50	ND<50	1200	10000*
Benzene:	ND<0.5	ND<0.5	ND<0.5	150	5300
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<2.5	ND<10
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	84	70
Xylenes:	ND<0.5	ND<0.5	ND<0.5	8.6	ND<10
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number: 86917- 9

Gasoline:	24000
Benzene:	11000
Toluene:	98
Ethyl Benzene:	280
Xylenes:	530

Concentration: ug/L

* GASOLINE RANGE CONCENTRATION REPORTED .THE CHROMATOGRAM SHOWS ONLY A SINGLE PEAK IN THE GASOLINE RANGE.



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

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

Page 2 of 2
QA/QC INFORMATION
SET: 86917

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 5520F:
Minimum Detection Limit in Water: 5000ug/L

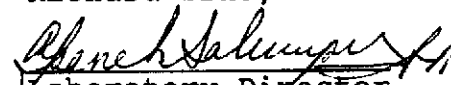
Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	200 ng	97/103	6%	70-130
Benzene:	200 ng	98/96	2%	70-130
Toluene:	200 ng	97/96	1%	70-130
Ethyl Benzene:	200 ng	101/99	2%	70-130
Xylenes:	200 ng	99/97	2%	70-130

Richard Srna, Ph.D.


Laboratory Director

Fax copy of Lab Report and COC to Chevron Contact: Yes No

86917 Chain-of-Custody-Record

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

Chevron Facility Number 9-1153
Facility Address 3126 Fernside Blvd, Alameda
Consultant Project Number 020202803
Consultant Name Groundwater Technology, Inc.
Address 4057 Port Chicago Hwy, Concord, CA
Project Contact (Name) Mr. Gregory A. Mischel
(Phone) 671-2387 (Fax Number) 685-9148

Chevron Contact (Name) Ms. Nancy Vukelich
(Phone) 510-6842-9581
Laboratory Name Superior Analytical Lab
Laboratory Release Number 590-1420
Samples Collected by (Name) Hector Merino
Collection Date 10-13-92
Signature Hector

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type C = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes To Be Performed										Remarks					
								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)								
TBLB	1	1	W	G		Acid	Y	X														Run TBLB DONOT CHANGE Remarks	
PBC3	2	1	W	G				X															
C3	3	3						X															
PBMWS	4	1						X															
MWS	5	3						X															
PBMWB	6	1						X															
MWB	7	3						X															
PBC1	8	1						X															
C1	9	3	W	X		X	X	X															

Please Initials: S
 Samples Stored in ice: Y
 Appropriate containers: Y
 Samples preserved: Y
 ICA without headspace: Y
 Comments:

COC-3.0WG/03 01/1/92

Relinquished By (Signature) <u>Hector</u>	Organization <u>GTA</u>	Date/Time <u>10/13/92 4:00</u>	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>Thomas A. Wilson</u>		Date/Time <u>10/13/92 12:00</u>	