



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

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September 2, 1992

~~Mr. Lawrence Seto~~
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station No. 9-0329
340 Highland Avenue, Piedmont, California

94611

Dear Mr. Seto :

Enclosed is the groundwater monitoring and sampling report dated August 27, 1992.

Sample from monitoring well C-3 show nondetectable levels of total petroleum hydrocarbon as gasoline (TPH-G), benzene, toluene, ethylbenzene, and xylenes (BTEX). Sample C-4 contained only 3.8 ppb toluene. ~~A check was observed in well C-2. The dissolved hydrocarbon level for C-2 were as follow : 9000 ppb TPH-G, 680 ppb benzene, 330 ppb toluene, 580 ppb ethylbenzene, and 690 ppb xylenes. During this sampling period depth to water ranged from 2.83 feet to 6.21 feet.~~

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

Sincerely,

Chevron U.S.A. Products Co.

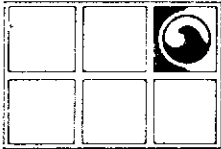
Kenneth Kan
Engineer

LKAN/MacFile 9-0329R2

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.



GROUNDWATER TECHNOLOGY, INC.

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

FAX: (415) 685-9148

August 27, 1992

Project No. 020302249

Mr. Ken Kan
Chevron U.S.A. Products Company
P. O. Box 5004
San Ramon, CA 94583-0804

**SUBJECT: GROUNDWATER MONITORING AND SAMPLING ACTIVITIES
CHEVRON SERVICE STATION NO. 9-0329
340 HIGHLAND AVENUE, PIEDMONT, CALIFORNIA**

Dear Mr. Kan:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on July 14, 1992. The three groundwater monitoring wells at this site were gauged to determine depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. 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 was purged and sampled. The groundwater samples 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. The laboratory report and chain-of-custody record are included in Attachment C. Monitoring well purge water was removed by Groundwater Technology for transport and recycling at the Chevron, Richmond, California terminal.

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

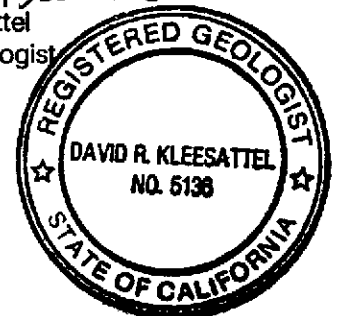
Sincerely,
GROUNDWATER TECHNOLOGY, INC.

Sandra L. Lindsey

Sandra L. Lindsey
Project Manager

David R. Kleesattel

David R. Kleesattel
Registered Geologist
No. 5136



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

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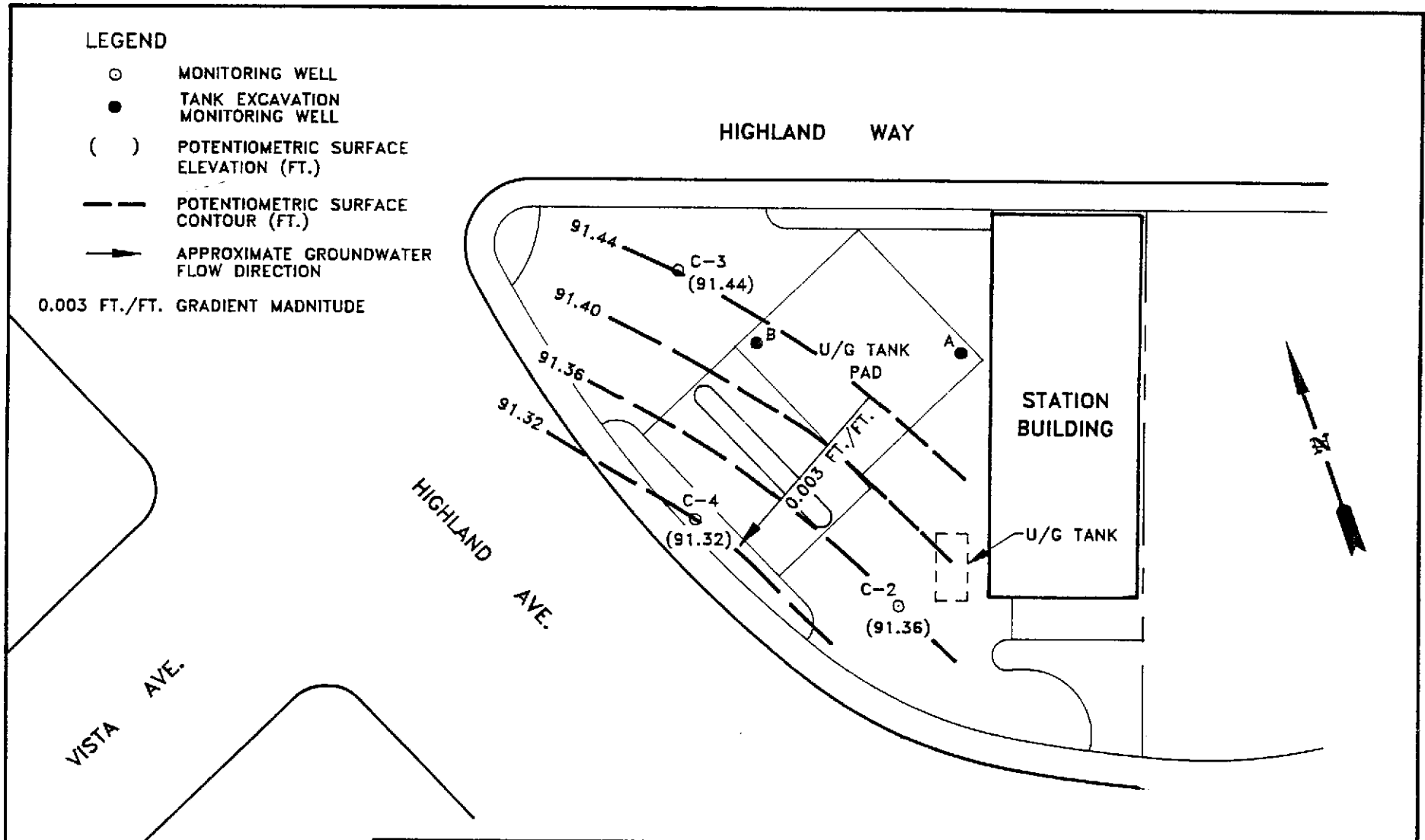
ATTACHMENT A


FIGURE 1

LEGEND

- MONITORING WELL
- TANK EXCAVATION MONITORING WELL
- () POTENTIOMETRIC SURFACE ELEVATION (FT.)
- POTENTIOMETRIC SURFACE CONTOUR (FT.)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

0.003 FT./FT. GRADIENT MAGNITUDE



 GROUNDWATER TECHNOLOGY		1401 HALYARD DR. #140 W. SACRAMENTO, CA. 95691 (916) 372-4700		POTENTIOMETRIC SURFACE MAP (7/14/92)			
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SEVICE STATION #9-0329			LOCATION: 340 HIGHLAND AVENUE PIEDMONT, CALIFORNIA		REV. NO.: 1	DATE: 8/21/92	
PM <i>GAM</i>	PE/RG DRK	DESIGNED SL	DETAILED GWS	ACAD FILE: POT71492	PROJECT NO.: 02030-2249	FIGURE: 1	

ATTACHMENT B

TABLE 1

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
CHEVRON SERVICE STATION NO. 9-0329
340 HIGHLAND AVENUE, PIEDMONT, CALIFORNIA

WELL ID/ ELEVATION	DATE	TPH-AS- GASOLINE	TOG	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (feet)	SPT (feet)	WTE (feet)
C-2 94.19	08/07/89	34,000	12,000	580	60	170	270	2.88	0.0	91.33
	11/15/89	8,100	<5,000	500	36	420	180	2.80	0.0	91.39
	02/01/91	6,800	7,000	490	21	310	86	3.75	0.0	90.41
	04/16/91	9,600	<5,000	810	43	550	270	2.55	0.0	91.64
	10/16/91	7,100	<5,000	320	23	200	60	3.52	0.0	90.67
	01/08/92	2,400	--	190	9	83	22	4.15	SHEEN	90.04
	04/10/92	6,600	--	550	33	340	170	2.96	SHEEN	91.23
	07/14/92	9,000	--	680	330	580	690	2.83	SHEEN	91.36
C-3 97.65	08/07/89	<50	--	<0.5	<1	<1	<3	4.29	0.0	93.36
	11/15/89	<500	<5,000	<0.5	2.8	<0.5	1.1	5.17	0.0	92.48
	02/01/91	<50	--	<0.5	<0.5	<0.5	<0.5	6.38	0.0	91.27
	04/16/91	<50	--	<0.5	<0.5	<0.5	<0.5	3.72	0.0	93.93
	10/16/91	<50	--	<0.5	<0.5	<0.5	<0.5	8.20	0.0	89.45
	01/08/92	<50	--	<0.5	<0.5	<0.5	<0.5	6.68	0.0	90.97
	04/10/92	<50	--	<0.5	<0.5	<0.5	<0.5	4.50	0.0	93.15
	07/14/92	<50	--	<0.5	<0.5	<0.5	<0.5	6.21	0.0	91.44
C-4 95.60	08/07/89	--	--	--	--	--	--	DRY	--	--
	11/15/89	1,300	<5,000	2.9	310	0.5	2.9	4.95	0.0	90.65
	02/01/91	72	--	9	<0.5	<0.5	<0.5	4.78	0.0	90.82
	04/16/91	<50	--	<0.5	<0.5	<0.5	<0.5	4.83	0.0	95.60
	10/16/91	<50	--	<0.5	<0.5	<0.5	<0.5	4.23	0.0	91.37
	01/08/92	<50	--	<0.5	<0.5	<0.5	<0.5	4.81	0.0	90.79
	04/10/92	<50	--	<0.5	<0.5	<0.5	<0.5	4.26	0.0	91.34
	07/14/92	<50	--	<0.5	3.8	<0.5	<0.5	4.28	0.0	91.32
* A --	08/07/89	1,000	--	50	6	5	22	2.10	0.0	--
	11/15/89	3,700	<5,000	98	2.1	4.3	55	2.04	0.0	--
	02/01/91	36,000	--	1,100	750	130	6,100	3.05	0.0	--
	04/16/91	8,000	--	370	6	86	750	2.01	0.0	--
	10/16/91	--	--	--	--	--	--	4.15	0.0	--

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
CHEVRON SERVICE STATION NO. 9-0329
340 HIGHLAND AVENUE, PIEDMONT, CALIFORNIA

WELL ID/ ELEVATION	DATE	TPH-AS- GASOLINE	TOG	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (feet)	SPT (feet)	WTE (feet)
* B	08/07/89	--	--	--	--	--	--	4.12	0.0	--
--	11/15/89	--	--	--	--	--	--	--	--	--
	02/01/91	--	--	--	--	--	--	5.03	0.0	--
	04/16/91	--	--	--	--	--	--	4.00	0.0	--
	10/16/91	--	--	--	--	--	--	6.24	0.0	--

- = Not applicable, not sampled, not measured
 * = Backfill wells - Not sampled as of 10/16/91, Not monitored as of 01/08/92.
 DTW = Depth to water
 SPT = Separate-phase hydrocarbon thickness
 WTE = Water table elevation

All elevations are given as feet above mean sea level.

Analytical results in micrograms per liter μ /L, or parts per billion.

Note: The previous report dated 10/30/91 erroneously reported that a sheen was noted in wells C-2 and C-3 for the 8/7/89 sampling event.

ATTACHMENT C
LABORATORY ANALYTICAL REPORT



Superior Precision Analytical, Inc.

835 Arnold Drive, Suite 106 • Martinez, California 94553 • (510) 229-0166 / fax (510) 229-0916

GROUNDWATER TECHNOLOGY, INC.
Attn: Gregory A. Mischel

Project 020302249
Reported 07/21/92

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
86216- 1	TB-LB	07/14/92	07/20/92 Water
86216- 2	RBC-4	07/14/92	07/20/92 Water
86216- 3	C-4	07/14/92	07/20/92 Water
86216- 5	C-3	07/14/92	07/19/92 Water
86216- 7	C-2	07/14/92	07/19/92 Water

RESULTS OF ANALYSIS

Laboratory Number:	86216- 1	86216- 2	86216- 3	86216- 5	86216- 7
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Gasoline:	ND<50	ND<50	ND<50	ND<50	9000
Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	680
Toluene:	ND<0.5	ND<0.5	3.8	ND<0.5	330
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	580
Xylenes:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	690
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L



Superior Precision Analytical, Inc.

835 Arnold Drive, Suite 106 • Martinez, California 94553 • (510) 229-0166 / fax (510) 229-0916

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: 86216

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	93/95	2	70-130
Benzene:	200 ng	90/97	7	70-130
Toluene:	200 ng	93/97	4	70-130
Ethyl Benzene:	200 ng	95/100	5	70-130
Xylenes:	600 ng	94/99	5	70-130

Richard Srna, Ph.D.

Charles J. Srna
Laboratory Director

