



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

STIP1143

92500-011110

December 3, 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 94609

Dear Mr. Seto :

Enclosed is the quarterly groundwater monitoring and sampling report from Groundwater Technology, Inc. dated December 2, 1992.

Samples from monitoring wells C-3 and C-4 were nondetectable for total petroleum hydrocarbon as gasoline (TPH-G), benzene, toluene, ethylbenzene, and xylenes (BTEX). A sample from well C-2 contained: 5500 ppb TPH-G, 250 ppb benzene, 17 ppb toluene, 130 ppb ethylbenzene, and 82 ppb xylenes. A sheen was not observed in monitoring well C-2. During this sampling event, depth to water ranged from 4.15 feet to 9.31 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

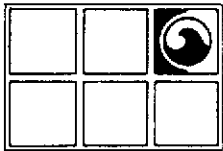
LKAN/MacFile 9-0329R3

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

December 2, 1992

Project No. 020302249

Mr. Ken Kan
Chevron U.S.A. Products Company
2410 Camino Ramon
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 October 5, 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. Separate-phase hydrocarbons were not detected in the groundwater monitoring wells. 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.

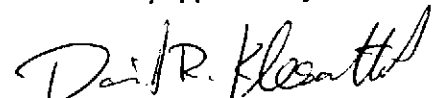
Sincerely,
Groundwater Technology, Inc.
Written/Submitted by


SANDRA L. LINDSEY
Project Manager

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

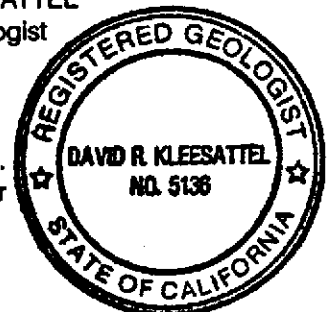
LR2249A2.NM

Groundwater Technology, Inc.
Reviewed/Approved by



DAVID R. KLEESATTEL
Registered Geologist
No. 5136

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



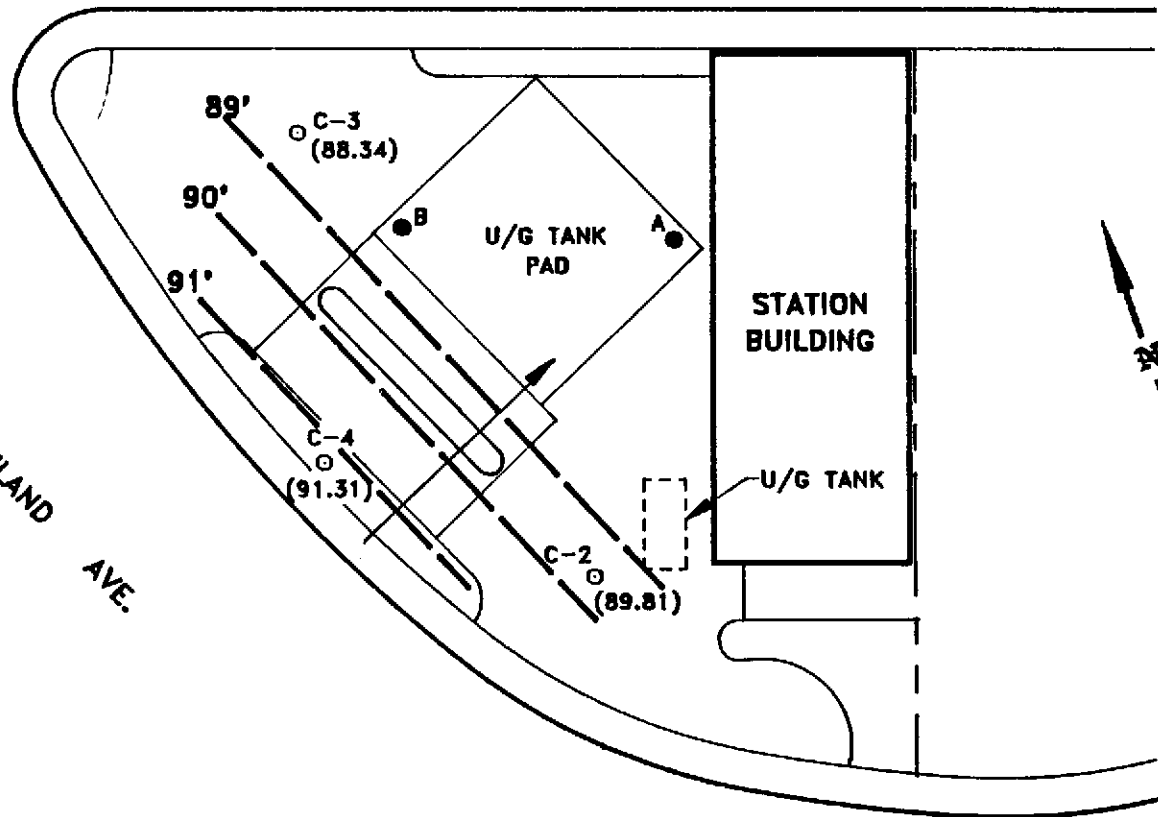
ATTACHMENT A

FIGURE 1

LEGEND

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

HIGHLAND WAY



HIGHLAND AVE.

VISTA AVE.



GROUNDWATER TECHNOLOGY 1401 HALYARD DR. #140
W. SACRAMENTO, CA. 95691
(916) 372-4700

POTENTIOMETRIC SURFACE MAP (10/5/92)



CLIENT: CHEVRON U.S.A. PRODUCTS CO. SEVICE STATION #9-0329		LOCATION: 340 HIGHLAND AVENUE PIEDMONT, CALIFORNIA		REV. NO.: 1	DATE: 11/17/92
PM <i>[Signature]</i>	PE/RG	DESIGNED TW	DETAILED ML	ACAD FILE: PSM0592	PROJECT NO.: 020302249
					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	80	170	270	2.88	0.00	91.33
	11/15/89	8,100	<5,000	500	36	420	180	2.80	0.00	91.39
	02/01/91	6,800	7,000	490	21	310	86	3.75	0.00	90.41
	04/16/91	9,600	<5,000	810	43	550	270	2.55	0.00	91.64
	10/16/91	7,100	<5,000	320	23	200	60	3.52	0.00	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
	10/05/92	5,500	—	250	17	130	82	4.38	0.00	89.81
	C-3 97.65	08/07/89	<50	—	<0.5	<1	<1	<3	4.29	0.00
11/15/89		<500	<5,000	<0.5	2.8	<0.5	1.1	5.17	0.00	82.48
02/01/91		<50	—	<0.5	<0.5	<0.5	<0.5	6.38	0.00	91.27
04/16/91		<50	—	<0.5	<0.5	<0.5	<0.5	3.72	0.00	93.93
10/16/91		<50	—	<0.5	<0.5	<0.5	<0.5	8.20	0.00	89.45
01/08/92		<50	—	<0.5	<0.5	<0.5	<0.5	6.68	0.00	90.97
04/10/92		<50	—	<0.5	<0.5	<0.5	<0.5	4.50	0.00	83.15
07/14/92		<50	—	<0.5	<0.5	<0.5	<0.5	6.21	0.00	91.44
10/05/92		<50	—	<0.5	<0.5	<0.5	<0.5	9.31	0.00	88.34
C-4 95.60		08/07/89	—	—	—	—	—	—	DRY	—
	11/15/89	1,300	<5,000	2.9	310	0.5	2.9	4.95	0.00	90.85
	02/01/91	72	—	9	<0.5	<0.5	<0.5	4.78	0.00	90.82
	04/16/91	<50	—	<0.5	<0.5	<0.5	<0.5	4.83	0.00	95.60
	10/16/91	<50	—	<0.5	<0.5	<0.5	<0.5	4.23	0.00	91.37
	01/08/92	<50	—	<0.5	<0.5	<0.5	<0.5	4.81	0.00	90.79
	04/10/92	<50	—	<0.5	<0.5	<0.5	<0.5	4.26	0.00	91.34
	07/14/92	<50	—	<0.5	3.6	<0.5	<0.5	4.28	0.00	91.32
	10/05/92	<50	—	<0.5	<0.5	<0.5	<0.5	4.29	0.00	91.31

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)
* 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	—
* 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.

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

GROUNDWATER TECHNOLOGY, INC.
Attn: GREG MISCHEL

Project 020302249
Reported 10/13/92

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
86873- 1	TB-LB	10/05/92	10/09/92 Water
86873- 2	RBC-3	10/05/92	10/12/92 Water
86873- 3	C-3	10/05/92	10/09/92 Water
86873- 5	C-4	10/05/92	10/09/92 Water
86873- 7	C-2	10/05/92	10/09/92 Water

RESULTS OF ANALYSIS

Laboratory Number: 86873- 1 86873- 2 86873- 3 86873- 5 86873- 7

Gasoline:	ND<50	ND<50	ND<50	ND<50	5500
Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	250
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	130
Xylenes:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	82
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L



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: 86873

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

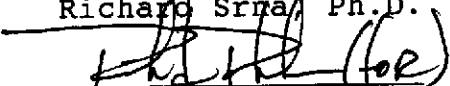
OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

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	99/101	2%	70-130
Benzene:	200 ng	94/98	4%	70-130
Toluene:	200 ng	93/96	3%	70-130
Ethyl Benzene:	200 ng	96/97	1%	70-130
Xylenes:	600 ng	95/97	2%	70-130

Richard Srna, Ph.D.

Laboratory Director

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

86873 Chain-of-Custody-Record

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

Chevron Facility Number 9-0329
 Facility Address 340 Highland Ave, Piedmont

Chevron Contact (Name) Ken Kan
 (Phone) 842-9500

Consultant Project Number 020302249
 Consultant Name Groundwater Technology, Inc.
 Address 4057 Port Chicago Hwy, Concord, CA

Laboratory Name Superior Analytical
 Laboratory Release # 543-5680

Project Contact (Name) Mr. Gregory A. Mischel
 (Phone) 671-2387 (Fax Number) 685-9148

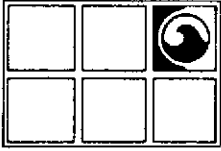
Samples Collected by (Name) Greg MASON
 Collection Date 10-5-92
 Signature [Signature]

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)	Analytes To Be Performed										Remarks	
								BTX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Greases (5820)	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		HCL	YES	X											Analyze but do not charge for TBLB
RBC-3	2	1						X											
C-3	3	3						X											
RBC-4	4	1						X											
C-4	5	3						X											
RBC-2	6	1						X											
C-2	7	3	W	G		HCL	YES	X											

Please Initial: [Signature]
 Samples Stored in ice [Signature]
 Appropriate containers [Signature]
 Samples preserved [Signature]
 VOA's without headspace [Signature]
 Comments: _____

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>GTI</u>	Date/Time	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>[Signature]</u>		Date/Time <u>10-5-92</u>	

COC-3.DWG/03 91/ACH



**GROUNDWATER
TECHNOLOGY, INC.**

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

FAX: (415) 685-9148

December 2, 1992

Mr. Ken Kan
Chevron U.S.A. Inc.
2410 Camino Ramon
San Ramon, California 94583-0804

**SUBJECT: CHEVRON SERVICE STATION No. 9-0329
340 HIGHLAND AVENUE
PIEDMONT, CALIFORNIA**

Dear: Mr. Kan:

Enclosed is the quarterly monitoring and sampling report for the above referenced site. A review of the data indicates that the groundwater level has dropped 3.10 feet in monitoring well C-3 and 1.55 feet in monitoring well C-2 since the last monitoring event. The water level in well C-4 is relatively unchanged. The groundwater flow direction as calculated, indicates that the groundwater is flowing to the east. Previous monitoring data indicated a flow direction to the west. Well C-4 could possibly be an anomalous point if water infiltrating through the planter is creating mounding of the water table in the area of the planter. Additional conclusions cannot be made with the available data.

If you have any questions or comments, please contact the Groundwater Technology Concord Office at (510) 671-2387.

Sincerely,
Groundwater Technology, Inc.
Reviewed/Approved by

SANDRA L. LINDSEY
Project Manager