



**Chevron**

93 AUG 27 AM 11: 53

August 25, 1993

**Chevron U.S.A. Products Company**  
2410 Camino Ramon  
San Ramon, CA 94583

**Marketing Department**  
Phone 510 842 9500

Mr. Scott Seery  
Alameda County Health Care Services  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621

**Re: Chevron Service Station #9-6991**  
**2920 Castro Valley Boulevard, Castro Valley, CA**

Dear Mr. Seery:

Enclosed is the Groundwater Monitoring and Sampling Activities report dated July 30, 1993, prepared by our consultant Groundwater Technology, Inc. for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline, total petroleum hydrocarbons as diesel, and BTEX. Benzene was detected in monitor wells MW-1, MW-2, and MW-6 at concentrations of 0.6, 1.4, and 37 ppb, respectively. Depth to ground water was measured at 9.9 feet to 11.8 feet below grade and the direction of flow is to the southwest.

The 3/4 inch diameter wells at this site continue to provide reliable and repeatable ground water data. Chevron will continue to monitor and sample all wells at this site on a quarterly basis.

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

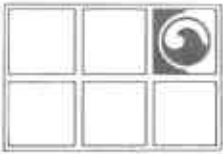
Sincerely,  
CHEVRON U.S.A. PRODUCTS COMPANY

  
Mark A. Miller  
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiatt, RWQCB - Bay Area  
Mr. S.A. Willer  
File (9-6991 QM3)





# GROUNDWATER TECHNOLOGY, INC.

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

FAX: (415) 685-9148

July 30, 1993

Project No. 020204092

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. 9-6991  
2920 Castro Valley Boulevard, Castro Valley, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on June 18, 1993. The groundwater monitoring wells at this site were gauged to measure depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not detected in the monitoring wells. A potentiometric surface map was prepared (Figure 1), and a summary of groundwater monitoring data (Table 1) are presented in Attachments 1 and 2, respectively. After the DTW was measured, each monitoring well was purged and sampled. The groundwater samples were analyzed for the presence of benzene, toluene, ethylbenzene and xylenes; total petroleum hydrocarbons-as-gasoline; and total petroleum hydrocarbons-as-diesel fuel. Results of the analyses are summarized in Table 1. Laboratory reports and chain-of-custody documents are presented in Attachment 3. Monitoring-well purge water was transported by Groundwater Technology to the Chevron Terminal in Richmond, California, for recycling.

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

Sincerely,  
Groundwater Technology, Inc.  
Written/Submitted by

*Tim Watchers*

Tim Watchers  
Project Geologist

pr *RH*

Attachment 1 Figure  
Attachment 2 Table  
Attachment 3 Laboratory Report

Groundwater Technology, Inc.  
Reviewed/Approved by

*David R. Kleesattel*

David R. Kleesattel  
Registered Geologist  
No. 5136

For:  
John S. Gaines  
Vice President, General Manager  
West Region

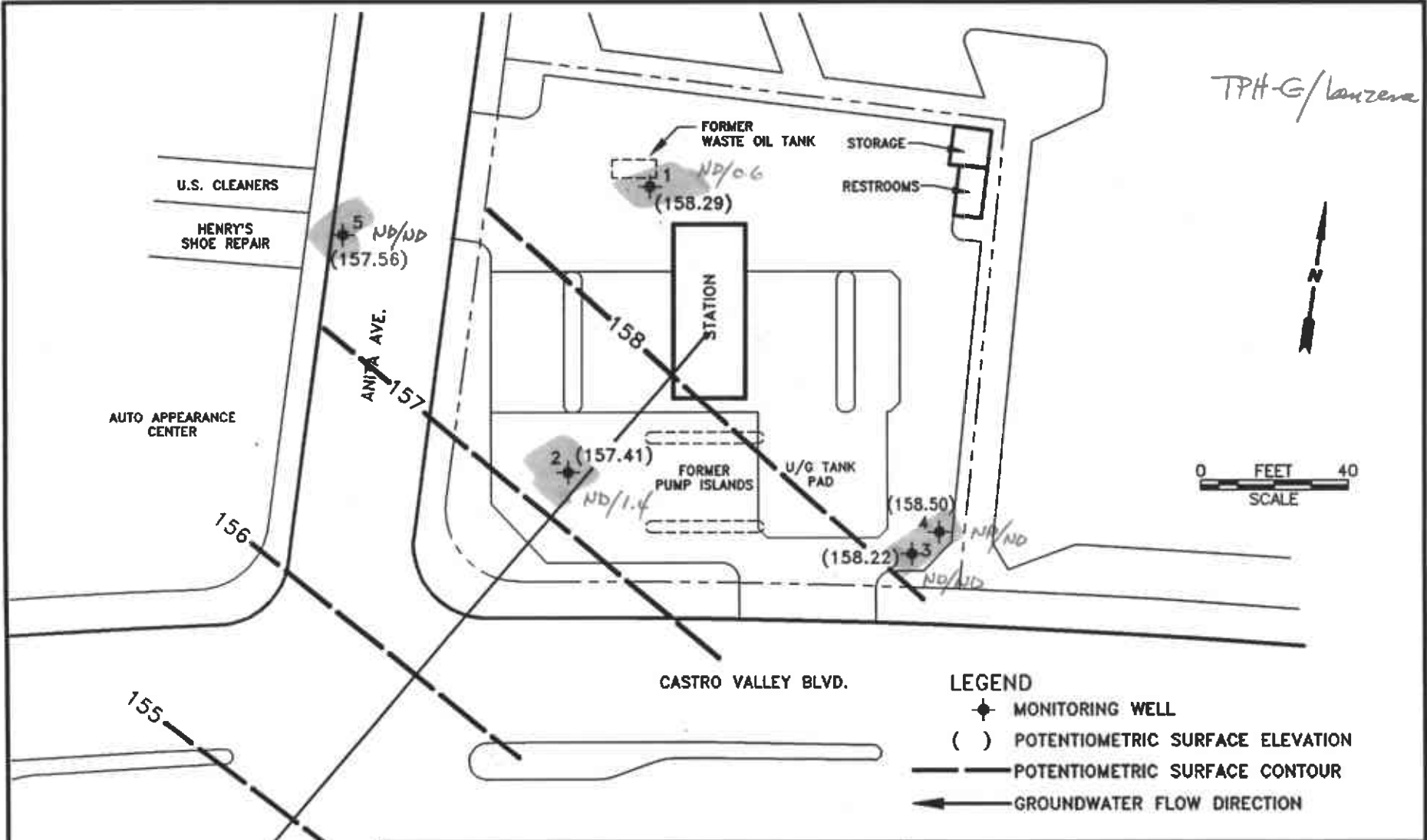


4082R013.020

**ATTACHMENT 1**

**Figure**

TPH-G/lauzera



<b>GROUNDWATER TECHNOLOGY</b>				4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387		<b>POTENTIOMETRIC SURFACE MAP (6/18/93)</b>			
<b>CLIENT:</b> CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION NO. 9-0515				<b>LOCATION:</b> 2920 CASTRO VALLEY BLVD. CASTRO VALLEY, CALIFORNIA		<b>REV. NO.:</b> 0	<b>DATE:</b> 7/27/93		
<b>PM</b> <i>Jaw</i>	<b>PE/RG</b> <i>DRK</i>	<b>DESIGNED</b> TW	<b>DETAILED</b> CY	<b>ACAD FILE:</b> SP793		<b>PROJECT NO.:</b> 020204116		<b>FIGURE:</b> 1	

C & M SPORTS		
BARBER SHOP	CHABOT MUSIC	ABC MUSIC

6 240/37  
 ◆ (154.63)

**ATTACHMENT 2**

**Table**

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-6991**  
**2920 Castro Valley Boulevard, Castro Valley, California**

Well ID/ Elev.	Date	TOG	TPH-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-1 169.30	10/08/91	<5000	---	230	45	<0.5	0.9	9.1	11.10	0.00	158.20
	11/04/91	---	---	340	120	<0.5	<0.5	6.1	11.03	0.00	158.27
	12/04/91	<5000	170	<50	3.9	<0.5	<0.5	<0.5	11.05	0.00	158.25
	06/05/92	---	<50	100	26	0.6	0.5	1.0	11.04	0.00	158.26
	10/27/92	---	54	<50	11	<0.5	<0.5	<0.5	11.10	0.00	158.20
	12/30/92	---	170	<50	24	<0.5	<0.5	<0.5	---	---	---
	01/27/93	---	---	---	---	---	---	---	10.63	0.00	158.67
	03/05/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	10.71	0.00	158.59
	06/18/93	---	<50	<50	0.6	<0.5	<0.5	<1.5	11.01	0.00	158.29
MW-2 169.15	10/08/91	---	---	110	5.1	1.1	0.8	26	11.95	0.00	157.20
	11/19/91	---	---	120	11	1.1	<0.5	17	11.75	0.00	157.40
	12/04/91	---	130	440	30	2.5	<0.5	52	11.80	0.00	157.35
	06/05/92	---	130*	80	13	<0.5	<0.5	1.0	11.80	0.00	157.35
	10/27/92	---	110	54	13	<0.5	<0.5	<0.5	12.00	0.00	157.15
	12/30/92	---	92*	180	30	<0.5	<0.5	1.0	---	---	---
	01/27/93	---	---	---	---	---	---	---	10.91	0.00	158.24
	03/05/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	10.89	0.00	158.26
	06/18/93	---	<50	<50	1.4	<0.5	<0.5	<1.5	11.74	0.00	157.41
MW-3 169.11	10/08/91	---	---	81	1.9	0.7	0.8	2.4	8.27	0.00	160.84
	11/04/91	---	---	60	<0.5	<0.5	<0.5	<0.5	10.85	0.00	158.26
	12/04/91	---	<50	<50	<0.5	<0.5	<0.5	<0.5	11.05	0.00	158.06
	06/05/92	---	170*	<50	<0.5	<0.5	<0.5	<0.5	11.15	0.00	157.96
	10/27/92	---	120	<50	<0.5	<0.5	<0.5	<0.5	11.60	0.00	157.51
	12/30/92	---	170*	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/27/93	---	---	---	---	---	---	---	9.11	0.00	160.00
	03/05/93	---	---	---	---	---	---	---	---	---	---
	03/17/93	---	---	---	---	---	---	---	9.95	0.00	159.16
	06/18/93	---	<50	<50	<0.5	<0.5	<0.5	<1.5	10.89	0.00	158.22

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
 Chevron Service Station No. 9-6991  
 2920 Castro Valley Boulevard, Castro Valley, California

Well ID/ Elev.	Date	TOG	TPH-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-4 169.18	10/27/92	---	<50	<50	<0.5	0.6	0.5	4.3	11.39	0.00	157.79
	12/30/92	---	<50	<50	<0.5	<0.5	<0.5	<0.5	10.13	0.00	159.05
	01/27/93	---	---	---	---	---	---	---	9.09	0.00	160.09
	03/05/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	9.90	0.00	159.28
	06/18/93	---	<50	<50	<0.5	<0.5	<0.5	<1.5	10.68	0.00	158.50
MW-5 167.41	10/27/92	---	<50	74	<0.5	<0.5	0.6	7.1	9.95	0.00	157.46
	12/30/92	---	<50	<50	<0.5	<0.5	<0.5	<0.5	9.20	0.00	158.21
	01/27/93	---	---	---	---	---	---	---	9.61	0.00	157.80
	03/05/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	9.51	0.00	157.90
	06/18/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	9.85	0.00	157.56
MW-6 166.46	10/27/92	---	<50	600	22	22	24	130	12.54	0.00	153.92
	12/30/92	---	470*	1,700	170	16	46	160	10.20	0.00	156.26
	01/27/93	---	---	---	---	---	---	---	10.02	0.00	156.44
	03/05/93	---	150*	480	76	0.9	3.1	7.1	---	---	---
	03/17/93	---	---	---	---	---	---	---	10.67	0.00	155.79
	06/18/93	---	51	240	37	3.4	2.9	18	11.83	0.00	154.63

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
 Chevron Service Station No. 9-6991  
 2920 Castro Valley Boulevard, Castro Valley, California

Well ID/ Elev.	Date	TOG	TPH-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
TRIP BLANK	10/08/91	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/04/91	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/04/91	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/05/92	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/30/92	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/05/93	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	---	---	---
	06/18/93	---	---	<50	<0.5	<0.5	<0.5	<1.5	---	---	---

DTW = Depth to water  
 SPT = Separate-phase hydrocarbons thickness  
 WTE = Water table elevation in feet above mean sea level  
 TOG = Total oil and grease  
 TPH-G = Total petroleum hydrocarbons-as-gasoline  
 TPH-D = Total petroleum hydrocarbons-as-diesel fuel  
 --- = Not applicable/not sampled/not measured  
 \* = The pattern of peaks observed are not typical of diesel. Lighter than diesel.  
 Results in parts per billion



**ATTACHMENT 3**

**Laboratory Report**



# Superior Precision Analytical, Inc.

1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

Groundwater Technology Inc.  
Attn:Nicole Merchant

Project 020204092  
Reported 06/28/93

## TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
14536- 1	MW1	06/18/93	06/25/93 Water
14536- 2	MW2	06/18/93	06/25/93 Water
14536- 3	MW3	06/18/93	06/25/93 Water
14536- 4	MW4	06/18/93	06/25/93 Water
14536- 5	MW5	06/18/93	06/25/93 Water
14536- 6	MW6	06/18/93	06/25/93 Water

## RESULTS OF ANALYSIS

Laboratory Number: 14536- 1 14536- 2 14536- 3 14536- 4 14536- 5

Diesel:	ND<50	ND<50	ND<50	ND<50	ND<50
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number: 14536- 6

Diesel:	51
Concentration:	ug/L



# 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

Page 2 of 2  
QA/QC INFORMATION  
SET: 14536

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	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Diesel:	98/99	1%	75-125

Richard Srna, Ph.D.

*Richard Srna*  
Laboratory Director

Copy of Lab Report and COC to Chevron Contact:  Yes  No

59215 Chain-of-Custody-Record

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

Chevron Facility Number 41-12111  
Facility Address 2420 CASTLE VALLEY BLVD  
Consultant Project Number CACACUCA3  
Consultant Name Groundwater Technology, Inc.  
Address 4057 Port Chicago Hwy, Concord, CA 94520  
Project Contact (Name) Nicole Morimoto  
(Phone) 671-2387 (Fax Number) 685-9148

Chevron Contact (Name) Liya Li  
(Phone) 702-7150  
Laboratory Name SUPERIOR ANALYTICAL  
Laboratory Release Number 423-7760  
Samples Collected by (Name) Randy Ray Phillips  
Collection Date 6/18/93  
Signature Randy Ray Phillips

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	Lead (Yes or No)	Analyses To Be Performed											Remarks
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5526)	Purgeable Halocarbons (8019)	Purgeable Aromatics (8028)	Purgeable Organics (8246)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	H101C			
TB-LB		1	W	G	1:00	Hold	Yes	X											Do not Bill TB-LB
RB MW1	1	1			1:00													X	
MW1	2	5			1:00			X	X										TPHD is unacidified
RB MW2	4	1			1:40													X DN	
MW2	5	5			1:40			X	X									YES	TPHD is unacidified
RB MW3	6	1			2:15													X	YES
MW3	7	5			2:15			X	X									YES	TPHD is unacidified
RB MW4	8	1			2:40													X	DN
MW4	9	5			2:40			X	X										TPHD is unacidified
RB MW5	10	1			3:30													X	
MW5	11	4			3:30			X	X										TPHD is unacidified
RB MW6	12	1			3:40													X	TPHD is unacidified 1 Broken
MW6	13	4	✓	Y	3:40	Y	✓	X	X										TPHD is unacidified 1 Broken

Relinquished By (Signature) <u>Randy Ray Phillips</u>	Organization <u>GTI</u>	Date/Time <u>6/21/93</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>[Blank]</u>	Date/Time <u>[Blank]</u>	Turn Around Time (Circle Choice) 24 hrs. 48 hrs. 5 Days 10 Days As Contracted
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time	

COC-3.0WS/COC/9/93