



**Chevron**

93 SEP 22 PM 12:49

September 21, 1993

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

**Marketing Department**  
Phone 510 842 9500

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

**Re: Chevron Service Station #9-1583  
5509 Martin Luther King Way, Oakland, CA**

Dear Ms. Hugo:

Enclosed is the quarterly Groundwater Monitoring and Sampling Activities report dated September 9, 1993, 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 (TPH-G) and BTEX. Benzene was detected in monitor wells MW-1, MW-2, and MW-3 at concentrations of 660, 1, and 3800 ppb, respectively. Separate-phase hydrocarbons were detected in monitor well MW-3 at a measured thickness of 0.01 ft. Depth to groundwater was measured at approximately 9.1 feet to 13.9 feet below grade, and the direction of flow is to the northwest.

Generally, dissolved hydrocarbon concentrations observed in the monitor wells at this site have decreased since the last sampling event. This most likely is associated with a decrease in ground water elevation over the last quarter. Separate-phase hydrocarbons were detected in monitor well MW-3 and may be a result of the rising and falling ground water liberating small amounts of separate phase hydrocarbons previously trapped in the capillary fringe.

Chevron will continue to monitor and sample all wells at this site on a quarterly basis. We are currently awaiting approval of the June 7, 1993 work plan for the installation of additional on-site wells prior to beginning work.

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. Eddy So, RWQCB - Bay Area  
Mr. M.R. Purcell  
File (9-1583 QM5)

# GROUNDWATER TECHNOLOGY, INC.

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

FAX: (415) 685-9148

September 9, 1993

Project No. 0204109

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

SUBJECT: *Groundwater Monitoring and Sampling Activities*  
Chevron Service Station No. 9-1583  
5509 Martin Luther King Jr. Way, Oakland, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on August 6, 1993. The six 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 detected in monitoring well MW-3 at a thickness of 0.01 foot. Table 1 summarizes the separate-phase hydrocarbons recovered from monitoring well MW-3. A potentiometric surface map (Figure 1) and a summary of groundwater monitoring data (Table 2) 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 benzene, toluene, ethylbenzene, and total xylenes and for total petroleum hydrocarbons-as-gasoline. Results of the chemical analyses are summarized in Table 2. The laboratory report and chain-of-custody record are included 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 with 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

**Groundwater Technology, Inc.**  
Reviewed/Approved by

*Tim Watchers*

Tim Watchers  
Project Geologist

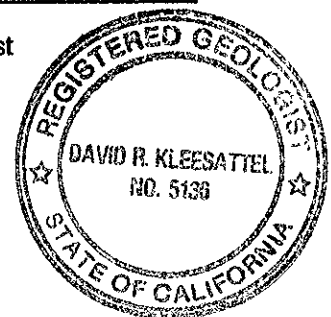
*David R. Kleesattel*

David R. Kleesattel  
Registered Geologist  
No. 5136

Attachment 1 Figure  
Attachment 2 Table  
Attachment 3 Laboratory Report

PR: *ST*

4109R013.020

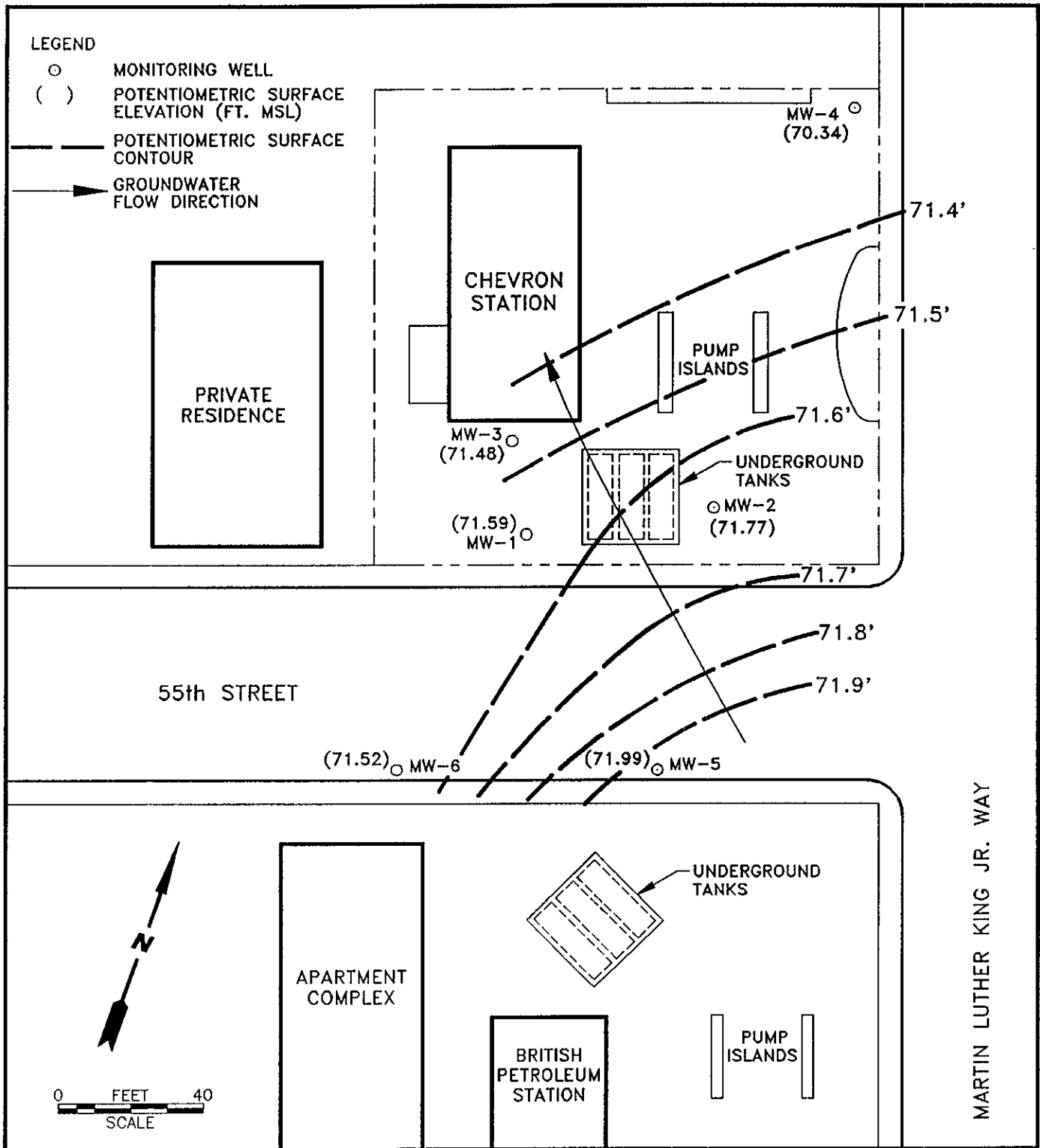


**ATTACHMENT 1**

**Figure**

**LEGEND**

- MONITORING WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION (FT. MSL)
- - - POTENTIOMETRIC SURFACE CONTOUR
- ▶ GROUNDWATER FLOW DIRECTION



**GROUNDWATER TECHNOLOGY** 4057 PORT CHICAGO HWY  
 CONCORD, CA 94520  
 (510) 671-2387

**POTENTIOMETRIC SURFACE MAP  
 (8/6/93)**

CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-1583		LOCATION: 5509 MARTIN LUTHER KING JR. WAY OAKLAND, CALIFORNIA		REV. NO.: 0	DATE: 9/8/93
PM <i>JAW</i>	PE/RG <i>DRK</i>	DESIGNED TW	DETAILED ML	ACAD FILE: PSM8693/SP292	PROJECT NO.: 020204115
					FIGURE: <b>1</b>

MARTIN LUTHER KING JR. WAY

**ATTACHMENT 2**

**Table**

**TABLE 1**  
**SEPARATE-PHASE HYDROCARBONS BAILED**  
**MONITORING WELL MW-3**  
**Chevron Service Station No. 9-1583**  
**5509 Martin Luther King Jr. Way, Oakland, California**

Date	Amount of Product Bailed	Cumulative Total Product Bailed
11/11/92	150 ml	150 ml
11/17/92	40 ml	190 ml
11/24/92	40 ml	230 ml
12/01/92	40 ml	270 ml
12/29/92	SHEEN	270 ml
01/05/93	---	270 ml
01/08/93	---	270 ml
04/14/93	SHEEN	270 ml
08/06/93	SHEEN	270 ml

ml = Milliliter  
 Sheen = <0.01 foot  
 --- = Not detected

**TABLE 2**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-1583**  
**5509 Martin Luther King Jr. Way, Oakland, California**

Well ID/ Elev	Date	TPH-as- Gasoline	Benzene	Toluene	Ethy- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-1  *81.97/ 82.42	12/22/83	--	--	--	--	--	10.25	0.00	71.72
	12/30/83	--	--	--	--	--	9.17	0.00	72.80
	03/12/90	50,000	3,000	7,300	1,900	18,000	10.08	0.00	71.89
	03/25/90	--	--	--	--	--	10.46	0.00	71.51
	10/18/90	--	--	--	--	--	--	--	--
	10/31/90	--	--	--	--	--	--	--	--
	11/16/90	--	--	--	--	--	11.58	0.00	70.84
	02/08/91	100,000	4,200	8,400	16,000	2,600	10.11	0.00	72.31
	05/08/91	31,000	200	66	670	2,000	10.45	0.00	71.97
	08/12/91	17,000	81	7.2	270	710	11.23	0.00	71.19
	11/07/91	7,100	24	6	130	170	10.70	0.00	71.72
	02/05/92	110,000	8,900	14,000	2,700	12,000	10.37	0.00	72.05
	05/13/92	19,000	450	85	480	870	10.58	0.00	71.84
	07/17/92	8,500	170	<10	360	600	11.05	0.00	71.37
	10/05/92	22,000	4,300	5,100	570	2,900	11.41	0.00	71.01
	11/11/92	--	--	--	--	--	--	--	--
	11/17/92	--	--	--	--	--	--	--	--
	11/24/92	--	--	--	--	--	--	--	--
	12/01/92	--	--	--	--	--	--	--	--
	12/29/92	--	--	--	--	--	--	--	--
01/05/93	--	--	--	--	--	--	--	--	
01/08/93	14,000,000	12,000	79,000	270,000	1,300,000	8.11	0.00	74.31	
02/02/93	--	--	--	--	--	--	--	--	
04/14/93	***48,000	670	1,100	1,600	6,300	9.85	0.00	72.57	
08/06/93	44,000	660	990	1,600	6,100	10.83	0.00	71.59	

TABLE 2  
 HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA  
 Chevron Service Station No. 9-1583  
 5509 Martin Luther King Jr. Way, Oakland, California

Well ID/ Elev	Date	TPH-as- Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-2	12/22/83	—	—	—	—	—	10.50	0.00	72.98
	12/30/83	—	—	—	—	—	9.92	0.00	73.56
83.48	03/12/90	800	400	22	18	55	11.02	0.00	72.46
	03/25/90	—	—	—	—	—	11.33	0.00	72.15
	10/18/90	—	—	—	—	—	12.31	0.00	71.17
	10/31/90	—	—	—	—	—	—	—	—
	11/16/90	—	—	—	—	—	—	—	—
	02/08/91	4,600	820	440	720	210	11.05	0.00	72.43
	05/08/91	<50	5	<0.5	<0.5	<0.5	11.36	0.00	72.12
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	11.97	0.00	71.51
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	11.50	0.00	71.98
	02/05/92	1,700	390	170	60	200	11.19	0.00	72.29
	05/13/92	**74	9.3	<0.5	<0.5	<0.5	11.49	0.00	71.99
	07/17/92	<50	2.0	<0.5	<0.5	<0.5	11.85	0.00	71.63
	10/05/92	3,500	1,200	530	86	220	12.00	0.00	71.48
	11/11/92	—	—	—	—	—	—	—	—
	11/17/92	—	—	—	—	—	—	—	—
	11/24/92	—	—	—	—	—	—	—	—
	12/01/92	—	—	—	—	—	—	—	—
	12/29/92	—	—	—	—	—	—	—	—
	01/05/93	—	—	—	—	—	—	—	—
	01/08/93	390	140	0.8	7.7	26	8.83	0.00	74.65
	02/02/93	—	—	—	—	—	—	—	—
	04/14/93	<50	5	<0.5	<0.5	<0.5	10.79	0.00	72.69
	08/06/93	<50	1	<0.5	<0.5	<0.5	11.71	0.00	71.77



**TABLE 2**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-1583**  
**5509 Martin Luther King Jr. Way, Oakland, California**

Well ID/ Elev	Date	TPH-as- Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-3	12/22/83	---	---	---	---	---	11.58	0.00	72.78
	12/30/83	---	---	---	---	---	11.17	0.00	73.19
84.36/	03/12/90	47,000	1,000	9,900	1,700	9,800	12.14	0.00	72.22
84.38	03/25/90	---	---	---	---	---	12.55	0.00	71.81
	10/18/90	---	---	---	---	---	---	---	---
	10/31/90	---	---	---	---	---	---	---	---
	11/16/90	---	---	---	---	---	13.62	0.00	70.76
	02/08/91	58,000	4,900	5,200	9,500	2,000	12.18	0.00	72.20
	05/08/91	50,000	2,100	1,400	2,000	9,400	12.52	0.00	71.86
	08/12/91	15,000	1,300	160	920	1,900	13.27	0.00	71.11
	11/07/91	26,000	1,000	310	1,900	5,900	12.81	0.00	71.57
	02/05/92	35,000	2,800	1,300	1,500	4,700	12.47	0.00	71.91
	05/13/92	47,000	1,500	1,200	1,100	4,800	12.62	0.00	71.76
	07/17/92	15,000	120	11	88	140	13.13	0.00	71.25
	10/05/92	---	---	---	---	---	13.62	0.24	70.95
	11/11/92	---	---	---	---	---	12.89	0.17	71.63
	11/17/92	---	---	---	---	---	12.89	0.06	71.54
	11/24/92	---	---	---	---	---	12.86	0.05	71.56
	12/01/92	---	---	---	---	---	12.92	0.03	71.48
	12/29/92	---	---	---	---	---	11.24	Sheen	73.14
	01/05/93	---	---	---	---	---	11.15	Sheen	73.23
	01/08/93	250,000	5,000	17,000	5,500	28,000	10.10	0.00	74.28
	02/02/93	---	---	---	---	---	---	---	---
	04/14/93	---	---	---	---	---	11.91	0.01	72.48
	08/06/93	150,000	3,800	6,600	3,700	17,000	12.90	0.01	71.48

**TABLE 2**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-1583**  
**5509 Martin Luther King Jr. Way, Oakland, California**

Well ID/ Elev	Date	TPH-as- Gasoline	Benzene	Toluene	Ethy- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-4	10/18/90	—	—	—	—	—	15.75	0.00	68.50
	10/31/90	<50	<0.5	<0.5	<0.5	1	13.90	0.00	70.35
84.25	11/16/90	—	—	—	—	—	14.25	0.00	70.00
	02/08/91	60	17	2	12	<0.5	12.32	0.00	71.93
	05/08/91	65	<0.5	<0.5	<0.5	<0.5	12.23	0.00	72.02
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	13.93	0.00	70.32
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	13.42	0.00	70.83
	02/05/92	<50	<0.5	<0.5	<0.5	<0.5	12.83	0.00	71.42
	05/13/92	<50	<0.5	<0.5	<0.5	<0.5	13.28	0.00	70.97
	07/17/92	<50	<0.5	<0.5	<0.5	<0.5	13.98	0.00	70.27
	10/05/92	<50	<0.5	<0.5	<0.5	<0.5	14.23	0.00	70.02
	11/11/92	—	—	—	—	—	—	—	—
	11/17/92	—	—	—	—	—	—	—	—
	11/24/92	—	—	—	—	—	—	—	—
	12/01/92	—	—	—	—	—	—	—	—
	12/29/92	—	—	—	—	—	—	—	—
	01/05/93	—	—	—	—	—	—	—	—
	01/08/93	<50	<0.5	<0.5	<0.5	<0.5	10.16	0.00	74.09
	02/02/93	—	—	—	—	—	—	—	—
	04/14/93	<50	<0.5	<0.5	<0.5	<0.5	12.04	0.00	72.21
	08/06/93	<50	<0.5	<0.5	<0.5	<0.5	13.91	0.00	70.34

**TABLE 2**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-1583**  
**5509 Martin Luther King Jr. Way, Oakland, California**

Well ID/ Elev	Date	TPH-as- Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-5	10/18/90	--	--	--	--	--	10.78	0.00	71.17
	10/31/90	110	<0.5	<0.5	<0.5	<0.5	10.63	0.00	71.32
81.95	11/16/90	--	--	--	--	--	10.68	0.00	71.27
	02/08/91	<50	<0.5	<0.5	<0.5	<0.5	9.17	0.00	72.78
	05/08/91	<50	<0.5	<0.5	<0.5	<0.5	8.68	0.00	73.27
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	10.33	0.00	71.62
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	9.76	0.00	72.19
	02/05/92	**69	<0.5	<0.5	<0.5	<0.5	9.47	0.00	72.48
	05/13/92	**74	<0.5	<0.5	<0.5	<0.5	9.70	0.00	72.25
	07/17/92	880	2.6	<1.2	4.6	11	10.21	0.00	71.74
	10/05/92	120	<0.5	<0.5	0.6	4.9	10.61	0.00	71.34
	11/11/92	--	--	--	--	--	--	--	--
	11/17/92	--	--	--	--	--	--	--	--
	11/24/92	--	--	--	--	--	--	--	--
	12/01/92	--	--	--	--	--	--	--	--
	12/29/92	--	--	--	--	--	--	--	--
	01/05/93	--	--	--	--	--	--	--	--
	01/08/93	**61	<0.5	<0.5	<0.5	<0.5	7.34	0.00	74.61
	02/02/93	--	--	--	--	--	--	--	--
04/14/93	--	--	--	--	--	--	--	--	
08/06/93	<50	<0.5	<0.5	<0.5	<0.5	9.96	0.00	71.99	

**TABLE 2**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-1583**  
**5509 Martin Luther King Jr. Way, Oakland, California**

Well ID/ Elev	Date	TPH-as- Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-6 80.60	10/18/90	--	--	--	--	--	9.79	0.00	70.81
	10/31/90	<50	<0.5	<0.5	<0.5	3	9.69	0.00	70.91
	11/16/90	--	--	--	--	--	9.74	0.00	70.86
	02/08/91	--	--	--	--	--	--	--	--
	05/08/91	56	<0.5	<0.5	<0.5	<0.5	9.54	0.00	71.06
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	9.50	0.00	71.10
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	8.89	0.00	71.71
	02/05/92	<50	<0.5	<0.5	<0.5	<0.5	8.59	0.00	72.01
	05/13/92	--	--	--	--	--	--	--	--
	07/17/92	--	--	--	--	--	--	--	--
	10/05/92	--	--	--	--	--	--	--	--
	11/11/92	--	--	--	--	--	--	--	--
	11/17/92	--	--	--	--	--	--	--	--
	11/24/92	--	--	--	--	--	--	--	--
	12/01/92	--	--	--	--	--	--	--	--
	12/29/92	--	--	--	--	--	--	--	--
	01/05/93	--	--	--	--	--	--	--	--
	01/08/93	--	--	--	--	--	--	--	--
	02/02/93	<50	2.1	<0.5	<0.5	2.2	7.71	0.00	72.89
	04/14/93	**<50	1	<0.5	<0.5	<0.5	8.19	0.00	72.41
08/06/93	***<50	<0.5	<0.5	<0.5	<0.5	9.08	0.00	71.52	

**TABLE 2**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-1583**  
**5509 Martin Luther King Jr. Way, Oakland, California**

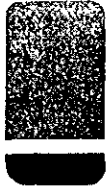
Well ID/ Elev	Date	TPH-as- Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
Trip Blank	03/12/90	<50	<0.3	<0.3	<0.3	<0.6	--	--	--
	02/08/91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	05/08/91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	02/05/92	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	05/13/92	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	07/17/92	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	10/05/92	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	11/11/92	--	--	--	--	--	--	--	--
	11/17/92	--	--	--	--	--	--	--	--
	11/29/92	--	--	--	--	--	--	--	--
	12/01/92	--	--	--	--	--	--	--	--
	12/29/92	--	--	--	--	--	--	--	--
	01/05/93	--	--	--	--	--	--	--	--
	01/08/93	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	02/02/93	--	--	--	--	--	--	--	--
04/14/93	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
08/06/93	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	

- TPH = Total petroleum hydrocarbons  
DTW = Depth to water  
SPT = Separate-phase hydrocarbon thickness  
WTE = Water-table elevation  
-- = Not applicable/not sampled/not measured  
\*81.97/82.42 = March 3, 1990, survey/November 30, 1990, survey  
\*\* = The laboratory reported that a nonstandard gasoline pattern was observed in the chromatogram.  
\*\*\* = Uncategorized compound is not included in gasoline hydrocarbon total.

All elevations are presented as feet above mean sea level.  
Analytical results in micrograms per liter, equivalent to parts per billion.

**ATTACHMENT 3**

**Laboratory Report**



# GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

4080 Pike Lane  
Concord, CA 94520  
(510) 685-7852  
(800) 544-3422 Inside CA  
(800) 423-7143 Outside CA  
(510) 825-0720 FAX

Client Number: 020204109  
Consultant Project Number: 020204109  
Facility Number: 9-1583  
Project ID: 5509 Martin Luther King  
Work Order Number: C3-08-0087

August 19, 1993

Nicole Merchant  
Groundwater Technology, Inc.  
4057 Port Chicago Hwy.  
Concord, CA 94520

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 08/06/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services, Laboratory certification number E1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,  
GTEL Environmental Laboratories, Inc.

Eileen F. Bullen  
Laboratory Director

Client Number: 020204109  
 Consultant Project Number: 020204109  
 Facility Number: 9-1583  
 Project ID: 5509 Martin Luther King  
 Work Order Number: C3-08-0087

**Table 1**  
**ANALYTICAL RESULTS**  
 Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Water  
 EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		01	02	03	04
Client Identification		TB-LB	MW4	MW6	MW5
Date Sampled		08/06/93	08/06/93	08/06/93	08/06/93
Date Analyzed		08/16/93	08/16/93	08/17/93	08/17/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5	<0.5	<0.5	<0.5	<0.5
Xylene, total	0.5	<0.5	<0.5	<0.5	<0.5
BTEX, total	--	--	--	--	--
TPH as Gasoline	50	<50	<50	<50*	<50
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		94.6	94.3	93.3	93.2

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

\* Uncategorized compound is not included in gasoline hydrocarbon total.



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**ANALYTICAL RESULTS**

**Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Water**

EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		05	06	07	M081693
Client Identification		MW2	MW1	MW3	METHOD BLANK
Date Sampled		08/06/93	08/06/93	08/06/93	--
Date Analyzed		08/18/93	08/17/93	08/17/93	08/16/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	1	660	3800	<0.5
Toluene	0.5	<0.5	990	6600	<0.5
Ethylbenzene	0.5	<0.5	1600	3700	<0.5
Xylene, total	0.5	<0.5	6100	17000	<0.5
BTEX, total	--	1	9400	31000	--
TPH as Gasoline	50	<50	44000	150000	<50
Detection Limit Multiplier		1	50	100	1
BFB surrogate, % recovery		101	99.7	104	103

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

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### QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
<b>Modified EPA 8020:</b>							
Benzene	Reagent Water	20.0	ug/L	98.0	113	14.0	55 - 129
Toluene	Reagent Water	20.0	ug/L	96.5	110	13.0	72 - 149
Ethylbenzene	Reagent Water	20.0	ug/L	97.0	104	7.0	75 - 138
Xylene, total	Reagent Water	60.0	ug/L	101	112	10.0	74 - 147

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number: <u>9-1583</u> Facility Address: <u>5509 Martin Luther King</u> Consultant Project Number: <u>020204109</u> Consultant Name: <u>Groundwater Technology, Inc.</u> Address: <u>4057 Port Chicago Hwy, Concord, CA 94520</u> Project Contact (Name): <u>Nicole Merchant</u> (Phone): <u>671-2387</u> (Fax Number): <u>685-9148</u>	Chevron Contact (Name): <u>Mark Miller</u> (Phone): <u>842-8134</u> Laboratory Name: <u>GTE</u> Laboratory Release Number: <u>816-6770</u> Samples Collected by (Name): <u>Ken Johnson</u> Collection Date: <u>8/6/93</u> Signature: <u>[Signature]</u>
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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										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)			
IBLB	01		W					X										Do Not Bill TB LB
RB MW4																		Seals Intact 3°C
MW4	02				230			X										
RB MW6																		
MW6	03				240			X										
RB MW5																		
MW5	04				250			X										
RB MW2																		
MW2	05				300			X										
RB MW1																		
MW1	06				305			X										
RB MW3																		
MW3	07		V		310			X										

03080087 + BOX

Relinquished By (Signature): <u>[Signature]</u>	Organization: <u>GTE</u>	Date/Time: <u>8/6/93 430</u>	Received By (Signature):	Organization:	Date/Time:	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): <u>[Signature]</u>		Date/Time: <u>8/6/93 4:30</u>	

COC-3/17/93