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Chevron

April 19, 1994

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

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

Marketing Department
Phone 510 842 9500

**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 February 25, 1994, prepared by our consultant Groundwater Technology, Inc. (GTI) 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, MW-3, and MW-6 at concentrations of 160, 0.7, 1600, and 4 ppb, respectively. Depth to groundwater was measured at approximately 8.5 feet to 13.0 feet below grade, and the direction of flow is to the northwest.

Concentrations observed in upgradient well MW-6 have increased since last quarter. This well is located directly downgradient from a BP station and may contain dissolved hydrocarbon constituents originating from that site.

Chevron will continue to monitor and sample all wells at this site on a quarterly basis. GTI has recently completed installing additional on-site wells as outlined in their work plan of June 7, 1993. A report documenting field activities will be forwarded to your office shortly.

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. S.A. Willer

GROUNDWATER TECHNOLOGY, INC.

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

FAX: (415) 685-9148

February 25, 1994

Project No. 020104101

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 quarterly groundwater monitoring and sampling data collected on January 5, 1994. The six groundwater monitoring wells at the 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 and a summary of groundwater monitoring data are presented in Attachments 1 and 2, respectively. After the DTW was measured, each monitoring well was purged and sampled. Field data sheets are presented in Attachment 3. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, xylenes and for total petroleum hydrocarbons-as-gasoline. Results of the chemical analyses are summarized in Table 1. The laboratory report and chain-of-custody record are included in Attachment 4. 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 contact our Concord office at (510) 671-2387.

Sincerely,
Groundwater Technology, Inc.
Written/Submitted by



Tim Watchers
Project Manager

PR KS

Attachment 1 Figure
Attachment 2 Table
Attachment 3 Field Data Sheets
Attachment 4 Laboratory Report

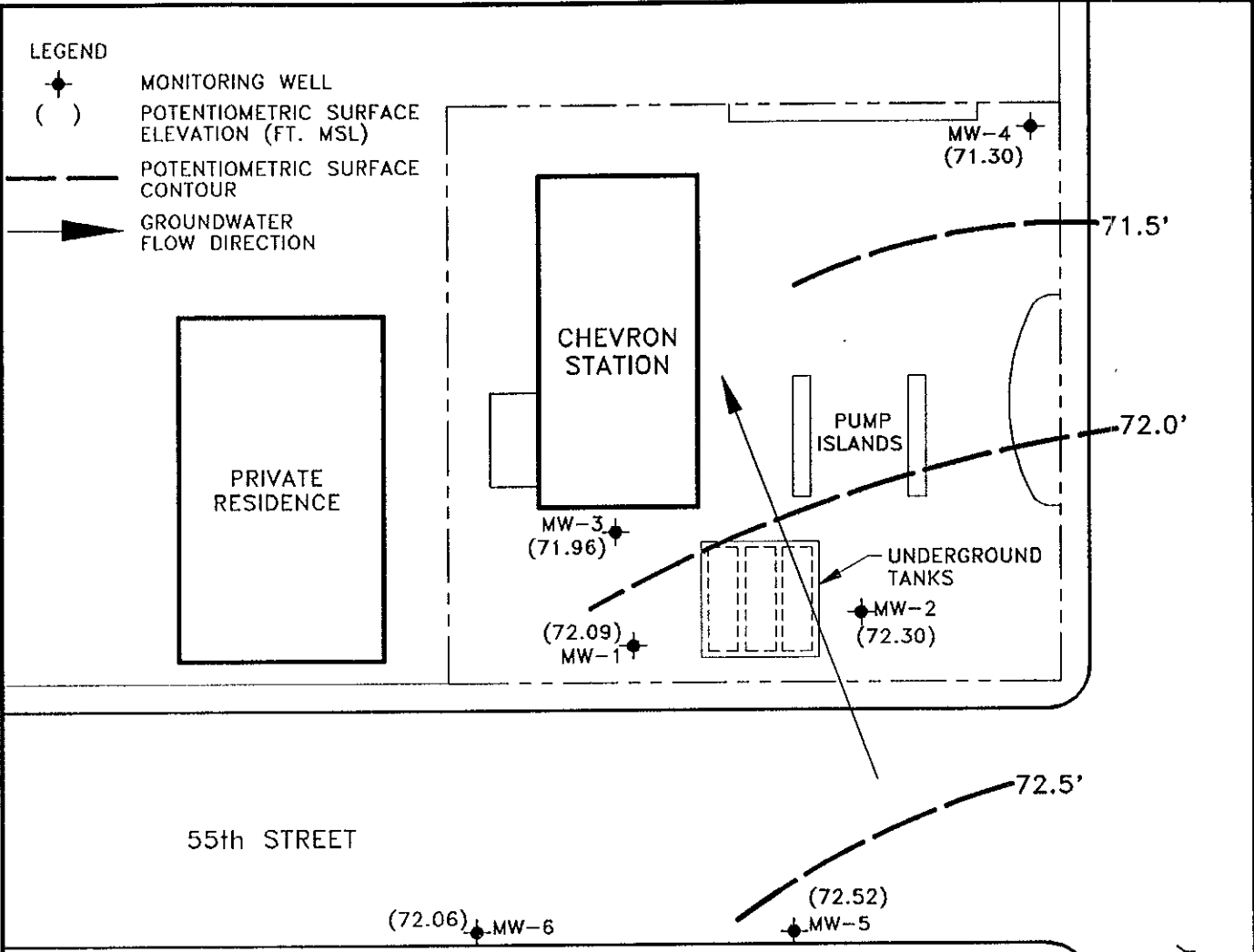
For:
Wendell W. Lattz
Vice President, General Manager
West Region

ATTACHMENT 1

Figure

LEGEND

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



55th STREET

(72.06) MW-6

(72.52) MW-5

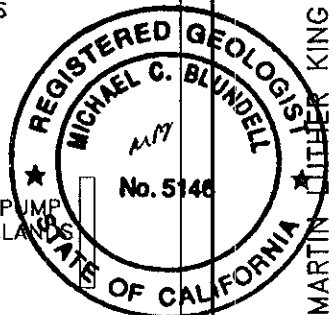


APARTMENT COMPLEX

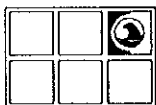
BRITISH PETROLEUM STATION

UNDERGROUND TANKS

PUMP ISLANDS



MARTIN LUTHER KING JR. WAY


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

POTENTIOMETRIC SURFACE MAP (1/05/94)

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: 2/24/94	
PM <i>[Signature]</i>	PE/RG <i>[Signature]</i>	DESIGNED TW	DETAILED ML	ACAD FILE: PSM1594	PROJECT NO.: 020104101	FIGURE: 1

ATTACHMENT 2

Table

TABLE 1
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-1	12/22/83	---	---	---	---	---	10.25	0.00	71.72
	12/30/83	---	---	---	---	---	9.17	0.00	72.80
*81.97/ 82.42	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
	10/21/93	18,000	270	460	1,300	4,700	10.90	0.00	71.52
	01/05/94	***22,000	160	160	630	2,300	10.33	0.00	72.09

TABLE 1
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
	10/21/93	***<50	1	<0.5	9	<0.5	11.74	0.00	71.74
	01/05/94	<50	0.7	<0.5	<0.5	0.9	11.18	0.00	72.30

TABLE 1
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/ 84.38	03/12/90	47,000	1,000	9,900	1,700	9,800	12.14	0.00	72.22
	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
	10/21/93	***22,000	2,300	1,700	1,400	5,100	12.97	0.00	71.41
	01/05/94	***37,000	1,600	1,100	1,300	6,500	12.42	0.00	71.96

TABLE 1
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 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-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
	10/21/93	<50	<0.5	<0.5	<0.5	1	13.99	0.00	70.26
	01/05/94	<50	<0.5	<0.5	<0.5	<0.5	12.95	0.00	71.30

TABLE 1
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
	10/21/93	<50	<0.5	<0.5	2	4	10.06	0.00	71.89
	01/05/94	<50	<0.5	<0.5	<0.5	<0.5	9.43	0.00	72.52

TABLE 1
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	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
80.60	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
	10/21/93	***<50	<0.5	<0.5	<0.5	<0.5	9.14	0.00	71.46
	01/05/94	***<50	4	<0.5	<0.5	<0.5	8.54	0.00	72.06

TABLE 1
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)
TBLB	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	---	---	<0.5	---	---	---	---	---
	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	---	---	---
	02/02/93	---	---	<0.5	---	---	---	---	---
	04/14/93	<50	<0.5	---	<0.5	<0.5	---	---	---
08/06/93	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	
10/21/93	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	
01/05/94	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	
Rinsate	01/05/94	<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

Field Data Sheets

Project Name: Chevron - Martin Luther King

Date: 1/21/94

Site Address: 5509 MLK Jr., Oakland

Page _____ of _____

Project Number: 020104104.0610

Project Manager: Ken Johnson

Well ID: MW6

DTW Measurements:

Well Diameter: 2"

Initial: _____ Calc Well Volume: _____ gal

Recharge: _____ Well Volume: 6 gal

Purge Method Pump Depth _____ ft.

Peristaltic _____ Hand Bailed _____

Gear Drive _____ Air Lift _____

Submersible X Other _____

Instruments Used

YSI: X _____ Other: _____

Hydac: _____

Omega: _____

Time	Temp <u>X</u> C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
9:38	18.4	0.54	6.87	2		cloudy
9:39	19.1	0.56	6.76	4		tan
9:40	19.2	0.54	6.77	5		↓
9:41	19.2	0.54	6.78	6		

Project Name: Chevron - Martin Luther Ki.

Date: 1/5, 74

Site Address: 5509 MLK Jr., Oakland

Page _____ of _____

Project Number: 020104104.0610

Project Manager: Ken Johnson

Well ID: MW 2

DTW Measurements:

Well Diameter: 3"

Initial: _____ Calc Well Volume: _____ gal

Recharge: _____ Well Volume: 9 gal

Purge Method _____ Pump Depth _____ ft.
 Peristaltic _____ Hand Bailed _____
 Gear Drive _____ Air Lift _____
 Submersible X Other _____

Instruments Used
 YSI: X _____ Other: _____
 Hydac: _____
 Omega: _____

Time	Temp	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
	<u>X</u> C F					
9:55	20.7	0.52	6.88	2		cloudy
9:56	22.2	0.47	6.70	4		tan
9:57	22.3	0.46	6.69	7		↓
9:58	22.2	0.47	6.69	9		

Project Name: Chevron - Martin Luther K.

Date: 1/5/94

Site Address: 5509 MLK Jr., Oakland

Page _____ of _____

Project Number: 020104104.0610

Project Manager: Ken Johnson

Well ID: MW3

DTW Measurements:

Well Diameter: 3"

Initial: _____ Calc Well Volume: _____ gal
Recharge: _____ Well Volume: 7 gal

Purge Method Pump Depth _____ ft.
Peristaltic _____ Hand Bailed _____
Gear Drive _____ Air Lift _____
Submersible X Other _____

Instruments Used
YSI: X Other: _____
Hydac: _____
Omega: _____

Time	Temp <u>X</u> C _____ F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
10:18	20.3	0.80	6.85	2		almost
10:19	21.1	0.65	6.79	4		clear
10:20	21.2	0.66	6.78	6		↓ Odor
10:21	21.3	0.67	6.77	7		

ATTACHMENT 4
Laboratory Report



GTEL

ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region

4080-C Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*
(510) 825-0720 (FAX)

Client Number: 020104101
Consultant Project Number: 020104101
Facility Number: 9-1583
Project ID: 5509 Martin Luther King Jr.
Work Order Number: C4-01-0074

January 14, 1994

Tim Watchers
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 01/06/94.

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.

Rashmi Shah
Laboratory Director

Client Number: 020104101
 Consultant Project Number: 020104101
 Facility Number: 9-1583
 Project ID: 5509 Martin Luther King Jr.
 Work Order Number: C4-01-0074

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

GTEL Sample Number		01	02	03	05
Client Identification		TBLB	RBMW4	MW4	MW6
Date Sampled		01/05/94	01/05/94	01/05/94	01/05/94
Date Analyzed		01/08/94	01/08/94	01/07/94	01/08/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<0.5	<0.5	4
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
TPH as Gasoline	50	<50	<50	<50	<50 ^b
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		110	105	125	119

- 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 Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.
- b. Uncategorized compound is not included in gasoline hydrocarbon concentration.

Client Number: 020104101
 Consultant Project Number: 020104101
 Facility Number: 9-1583
 Project ID: 5509 Martin Luther King Jr.
 Work Order Number: C4-01-0074

Table 1 (continued)

ANALYTICAL RESULTS

Aromatic Volatile Organics and

Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015^a

GTEL Sample Number		07	08	09	10
Client Identification		MW5	MW2	MW1	MW3
Date Sampled		01/05/94	01/05/94	01/05/94	01/05/94
Date Analyzed		01/07/94	01/08/94	01/09/94	01/08/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	0.7	160	1600
Toluene	0.5	<0.5	<0.5	160	1100
Ethylbenzene	0.5	<0.5	<0.5	630	1300
Xylene, total	0.5	<0.5	0.9	2300	6500
TPH as Gasoline	50	<50	<50	22000 ^b	37000 ^b
Detection Limit Multiplier		1	1	10	10
BFB surrogate, % recovery		110	110	97.6	108

- 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 Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.
- b. Uncategorized compound is not included in gasoline hydrocarbon concentration.

Client Number: 020104101
 Consultant Project Number: 020104101
 Facility Number: 9-1583
 Project ID: 5509 Martin Luther King Jr.
 Work Order Number: C4-01-0074

Table 1 (continued)

ANALYTICAL RESULTS

Aromatic Volatile Organics and

Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015^a

GTEL Sample Number		E010794			
Client Identification		METHOD BLANK			
Date Sampled		--			
Date Analyzed		01/07/94			
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5			
Toluene	0.5	<0.5			
Ethylbenzene	0.5	<0.5			
Xylene, total	0.5	<0.5			
TPH as Gasoline	50	<50			
Detection Limit Multiplier		1			
BFB surrogate, % recovery		119			

- 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 Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.

Client Number: 020104101
Consultant Project Number: 020104101
Facility Number: 9-1583
Project ID: 5509 Martin Luther King Jr.
Work Order Number: C4-01-0074

QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	C4010074-3	20.0	ug/L	98.0	98.0	0	57.3 - 138
Toluene	C4010074-3	20.0	ug/L	89.0	88.0	1.1	63.0 - 134
Ethylbenzene	C4010074-3	20.0	ug/L	87.5	86.0	1.7	59.3 - 137
Xylene, total	C4010074-3	60.0	ug/L	88.8	87.8	1.1	59.3 - 144

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

Chain-of-Custody-Record

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

Chevron Facility Number: 9-1583
Facility Address: 5509 Martin Luther King Jr.
Consultant Project Number: 020104101.0610
Consultant Name: Groundwater Technology, Inc.
Address: 4057 Port Chicago Hwy, Concord, CA. 94520
Project Contact (Name): Tim Watchers
(Phone) 510-671-2387 (Fax Number)

Chevron Contact (Name): Mark Miller
(Phone): 510/842-8134
Laboratory Name: G-TEL
Laboratory Release Number: 876-6770
Samples Collected by (Name): Randy Ray Phillips
Collection Date: 1/5/94
Signature: R. D. Rain

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											NOTE: Do NOT BILL TB-LB SAMPLES 4° 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)	HOLD								
TBLB	01	2v	W	G	⊖	HCL	Yes	X																
RBMW4	02	1v			10:40			X																
MW4	03	3v			↓			X																
RBMW6	04	1v			11:20 10:50 ^{RP}			X																
MW6	05	3v			↓			X																
RBMW5	06	1v			11:30 11:00 ^{RP}			X																
MW5	07	3v			↓			X																
RBMW2	08	0			10:50 ^{RP}			X																
MW2	08	3v			↓			X																
RBMW1	09	0			11:00 ^{RP}			X																
MW1	09	3v			↓			X																
RBMW3	10	0			11:30 ^{RP}			X																
MW3	10	3v	↓	↓	↓	↓	↓	X																

Relinquished By (Signature): <u>Randy Ray Phillips</u>	Organization: <u>GTE</u>	Date/Time: <u>1/5/94 1630</u>	Received By (Signature): <u>Shelley Ann</u>	Organization: <u>GTE</u>	Date/Time: <u>1-5-94 1630</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature): <u>Shelley Ann</u>	Organization: <u>GTE</u>	Date/Time: <u>1-5-94 1630</u>	Received By (Signature): <u>John Walker</u>	Organization: <u>GTEL</u>	Date/Time: <u>1-6-94</u>	
Relinquished By (Signature): <u>John Walker</u>	Organization: <u>GTE</u>	Date/Time: <u>1-6-94</u>	Received For Laboratory By (Signature): <u>M. D. Rain</u>		Date/Time: <u>1/6/94 4:00</u>	