



Chevron

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August 16, 1993

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

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

Marketing Department
Phone 510 842 9500

Site Assessment & Remediation

**Re: Former Chevron Service Station #9-0019
210 Grand Avenue, Oakland, CA**

Dear Ms. Eberle:

Enclosed is the Groundwater Monitoring and Sampling Activities report dated July 19, 1993, prepared by our consultant Groundwater Technology, Inc. for the above referenced site. As indicated in the report, groundwater samples collected from all wells were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), and BTEX. Benzene was detected in monitor wells MW-4 and MW-5 at concentrations of 2 ppb and 3000 ppb, respectively. Ground water samples collected from monitor wells MW-3 and MW-5 were also analyzed for purgeable halocarbons (EPA Method 601). Laboratory reports indicate concentrations of these constituents were negligible or below method detection limits. Depth to ground water was measured at approximately 3.3 feet to 12.2 feet below grade, and the direction of flow is to the west.

The ground water extraction system at this site was started on March 11, 1993. Currently the system has removed approximately 1,700 gallons of hydrocarbon impacted ground water. Enclosed for your reference is the Quarterly System Compliance Report dated July 20, 1993, prepared by our consultant Geraghty & Miller. This report provides a summary of the operating history of the system.

Chevron will continue to monitor and sample all wells at this site on a quarterly basis. In conjunction with the next quarterly sampling report, we will evaluate the effectiveness of the ground water extraction system and provide recommendations for further actions.

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

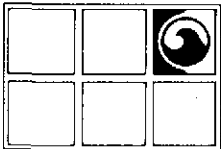
Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiatt, RWQCB - Bay Area
Mr. Kent O'Brien - Geraghty & Miller
Ms. B.C. Owen
File (9-0019 QM4)

Mr. Frank Fanelli
City of Oakland
Real Estate Department
1330 Broadway, Suite #101
Oakland, CA 94612

JUL 23 '93 J.M.M.



GROUNDWATER TECHNOLOGY, INC.

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

FAX: (415) 685-9148

July 19, 1993

Project No. 020204096

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. 9-0019
210 Grand Avenue, Oakland, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on June 7, 1993. The eight 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 (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 benzene, toluene, ethylbenzene, and xylenes and for total petroleum hydrocarbons-as-gasoline. The sample from monitoring wells MW-3 and MW-5 were analyzed for purgeable halocarbons. Results of the chemical analyses are summarized in Table 2. Additional groundwater samples were collected and analyzed for total dissolved solids. 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 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

Groundwater Technology, Inc.
Reviewed/Approved by

Tim Watchers

Tim Watchers
Project Geologist

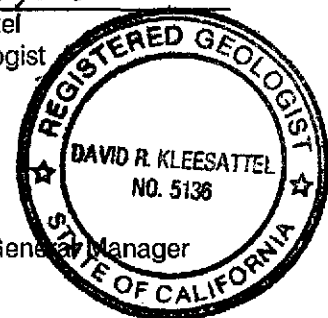
David R. Kleesattel

David R. Kleesattel
Registered Geologist
No. 5136

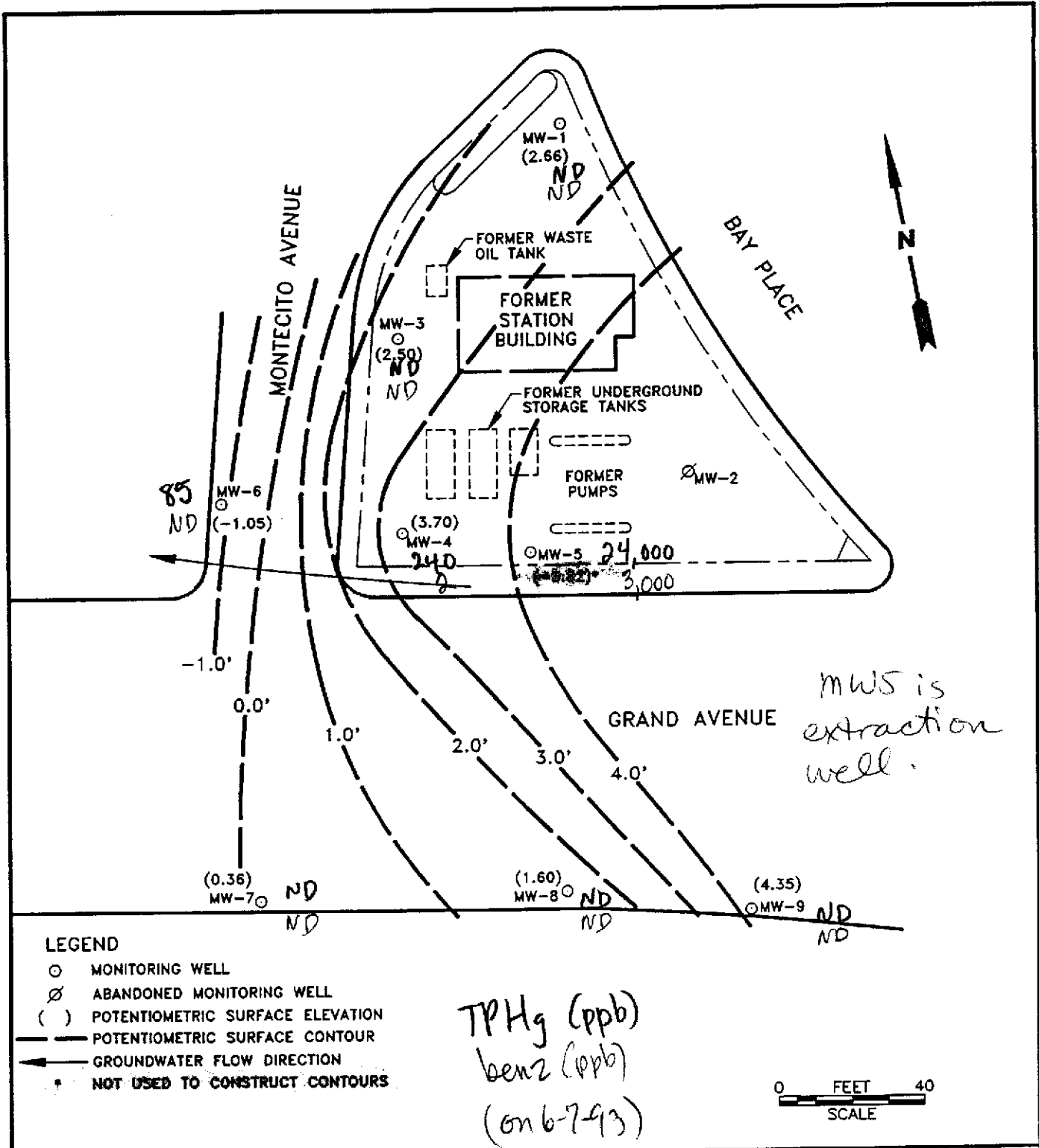
PR: *[Signature]*

- Attachment 1 Figure
- Attachment 2 Tables
- Attachment 3 Laboratory Report

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



4096R013.020



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

POTENTIOMETRIC SURFACE MAP
 (6/7/93)

CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-0019		LOCATION: 210 GRAND AVENUE OAKLAND, CALIFORNIA		REV. NO.: 0	DATE: 7/13/93
PM: <i>JAW</i>	PE/RC: <i>RAA</i>	DESIGNED: TW	DETAILED: ML	ACAD FILE: PSM6793/SP692	PROJECT NO.: 020204084
					FIGURE: 1

TABLE 1
GROUNDWATER MONITORING DATA
Chevron Service Station No. 9-0019
210 Grand Avenue, Oakland, California

Well ID/ Elevation	Date	DTW (ft)	SPT (ft)	WTE (ft)
MW-1 9.63	03/14/89	6.74	0.00	2.89
	06/08/89	7.14	0.00	2.49
	09/14/89	7.21	0.00	2.42
	12/08/89	7.29	0.00	2.34
	03/19/90	7.00	0.00	2.63
	07/06/90	7.13	0.00	2.50
	10/03/90	7.53	0.00	2.10
	08/23/91	7.06	0.00	2.57
	11/22/91	7.47	0.00	2.16
	02/26/92	6.69	0.00	2.94
	05/22/92	6.96	0.00	2.67
	09/29/92	7.19	0.00	2.44
	12/23/92	7.03	0.00	2.60
	03/22/93	6.60	0.00	3.03
06/07/93	6.97	0.00	2.66	
MW-2 8.99 9.01	03/14/89	6.08	0.00	2.91
	06/08/89	5.22	0.00	3.77
	09/14/89	5.95	0.00	3.04
	12/08/89	9.25	0.00	-0.26
	03/19/90	5.92	0.00	3.07
	07/06/90	6.79	0.00	2.22
	10/03/90	--	--	--
	08/23/91	--	--	--
	03/22/93	--	--	--
	11/22/91	Well destroyed (11/15/91)		
MW-3 8.19 8.19	03/14/89	6.02	0.00	2.16
	06/08/89	5.88	0.00	2.30
	09/14/89	6.30	0.00	1.88
	12/08/89	9.52	0.00	-1.34
	03/19/90	6.17	0.00	2.01
	07/06/90	7.52	0.00	0.67
	10/03/90	7.31	0.00	0.88
	08/23/91	5.65	0.00	2.53
	11/22/91	6.78	0.00	1.41
	02/26/92	4.65	0.00	3.54
	05/22/92	5.56	0.00	2.63
	09/29/92	6.23	0.00	1.96
	12/23/92	5.82	0.00	2.37
	03/22/93	4.92	0.00	3.27
06/07/93	5.69	0.00	2.50	

**TABLE 1
GROUNDWATER MONITORING DATA
Chevron Service Station No. 9-0019
210 Grand Avenue, Oakland, California**

Well ID/ Elevation	Date	DTW	SPT	WTE
MW-4 7.60 7.59	03/14/89	5.52	0.00	2.08
	06/08/89	4.19	0.00	3.41
	09/14/89	4.80	0.00	2.80
	12/08/89	4.86	0.00	2.74
	03/19/90	4.65	0.00	2.95
	07/06/90	6.42	0.00	1.17
	10/03/90	6.39	0.00	1.20
	08/23/91	4.42	0.00	3.17
	11/22/91	5.38	0.00	2.21
	02/26/92	2.65	0.00	4.94
	05/22/92	3.96	0.00	3.63
	09/29/92	4.68	0.00	2.91
	12/23/92	3.63	0.00	3.96
	03/22/93	2.90	0.00	4.69
	06/07/93	3.89	0.00	3.70
MW-5 8.35	03/14/89	6.98	0.00	1.37
	06/08/89	4.73	0.00	3.62
	09/14/89	5.37	0.00	2.98
	12/08/89	9.13	0.00	-0.78
	03/19/90	5.12	0.00	3.23
	07/06/90	5.81	0.00	2.54
	10/03/90	6.90	0.00	1.45
	08/23/91	5.05	0.00	3.30
	11/22/91	6.25	0.00	2.10
	02/26/92	3.00	0.00	5.35
	05/22/92	4.49	0.00	3.86
	09/29/92	4.85	0.00	3.50
	12/23/92	3.58	0.00	4.77
03/22/93	---	---	---	
06/07/93	12.17	0.00	-3.82	
MW-6 6.56	07/06/90	9.09	0.00	-2.53
	10/03/90	5.78	0.00	0.78
	08/23/91	7.49	0.00	-0.93
	11/22/91	7.63	0.00	-1.07
	02/26/92	5.55	0.00	1.01
	05/22/92	6.94	0.00	-0.38
	09/29/92	6.80	0.00	-0.24
	12/23/92	5.99	0.00	0.57
	03/22/93	7.07	0.00	-0.51
06/07/93	7.61	0.00	-1.05	

TABLE 1
GROUNDWATER MONITORING DATA
Chevron Service Station No. 9-0019
210 Grand Avenue, Oakland, California

Well ID/ Elevation	Date	DTW	SPT	WTE
MW-7 4.99	07/06/90	5.85	0.00	-0.86
	10/03/90	6.25	0.00	-1.26
	08/23/91	5.50	0.00	-0.51
	11/22/91	5.73	0.00	-0.74
	02/26/92	4.84	0.00	0.15
	05/22/92	4.89	0.00	0.10
	09/29/92	5.55	0.00	-0.56
	12/23/92	4.87	0.00	0.12
	03/22/93	4.05	0.00	0.94
	06/07/93	4.63	0.00	0.36
MW-8 6.77	07/06/90	3.98	0.00	2.79
	10/03/90	4.73	0.00	2.04
	08/23/91	4.76	0.00	2.01
	11/22/91	5.73	0.00	1.04
	02/26/92	4.30	0.00	2.47
	05/22/92	3.66	0.00	3.11
	09/29/92	---	---	---
	12/23/92	2.83	0.00	3.94
	03/22/93	4.38	0.00	2.39
	06/07/93	5.17	0.00	1.60
MW-9 7.63	07/06/90	4.61	0.00	3.02
	10/03/90	5.14	0.00	2.49
	08/23/91	5.45	0.00	2.18
	11/22/91	5.48	0.00	2.15
	02/26/92	2.63	0.00	5.00
	05/22/92	4.00	0.00	3.63
	09/29/92	4.70	0.00	2.93
	12/23/92	3.76	0.00	3.87
	03/22/93	2.11	0.00	5.52
	06/07/93	3.28	0.00	4.35

--- = Not applicable, not sampled, not measured
 DTW = Depth to water
 SPT = Separate-phase hydrocarbon thickness
 WTE = Water-table elevation

Measurements referenced relative to mean sea level



TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-0019
210 Grand Avenue, Oakland, California

Well	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG	Chloroform	1,2-DCA	F113	TCA
MW-1	03/14/89	600	<0.2	<0.2	3.2	1.7	<3,000	1.0	<0.2	<20.0	<0.2
	06/08/89	<50	<0.1	<0.5	<0.1	<0.2	—	<0.5	<0.1	<20.0	<0.1
	09/14/89	<50	<0.2	<1.0	<0.2	<0.4	—	<1.0	<0.2	<1.0	0.7
	12/08/89	<50	<0.3	<0.3	<0.3	<0.6	—	<0.5	<0.5	—	<0.5
	03/19/90	190	0.8	<0.3	7	3	—	<0.5	<0.5	—	<0.5
	07/06/90	<50	<0.3	<0.3	<0.3	<0.6	—	<0.5	<0.5	—	<0.5
	10/03/90	<50	<0.3	<0.3	<0.3	<0.6	—	<0.5	<0.5	—	<0.5
	08/23/91	150	5.0	11	3.5	10	—	<0.5	<0.5	—	<0.5
	11/22/91	86	7.2	11	2.9	13	—	<0.5	<0.5	<0.5	<0.5
	02/26/92	<50	<0.5	<0.5	<0.5	1.4	—	<0.5	<0.5	<0.5	<0.5
	05/22/92	<50	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	<0.5	<0.5
	09/29/92	<50	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	—	<0.5
	12/23/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—
	03/22/93	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—
06/07/93	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	
MW-2	03/14/89	<100	6.7	7.1	0.5	4.6	<3,000	<1.0	0.7	<20.0	<0.2
	06/09/89	<100	<0.2	<1.0	<0.2	<0.4	—	<1.0	<0.2	<20.0	<0.2
	09/14/89	<50	<0.2	<1.0	<0.2	<0.4	—	<1.0	<0.2	<1.0	<0.2
	12/08/89	<50	<0.3	<0.3	<0.3	<0.6	—	<0.5	<0.5	—	<0.5
	03/19/90	<50	<0.3	<0.3	<0.3	<0.6	—	<0.5	<0.5	—	<0.5
	07/06/90	<50	<0.3	<0.3	<0.3	<0.6	—	<0.5	<0.5	—	<0.5
	10/03/90 ^a	—	—	—	—	—	—	—	—	—	—
	08/23/91 ^a	—	—	—	—	—	—	—	—	—	—
	11/22/91 ^f	—	—	—	—	—	—	—	—	—	—

TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-0019
210 Grand Avenue, Oakland, California

Well	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG	Chloroform	1,2-DCA	F113	TCA
MW-3	03/14/89	<100	2.1	0.8	<0.2	2	<3,000	<1	3	<20	<0.2
	06/09/89	<100	<0.5	<1.0	<0.2	<0.4	—	<1	3.3	<20	<0.2
	09/14/89	<50	<0.2	<1.0	<0.2	<0.4	—	<1.0	2.2	<1	<0.2
	12/08/89	<50	<0.3	<0.3	<0.3	<0.6	—	<0.5	1.3	—	<0.5
	03/19/90	<50	<0.3	<0.3	<0.3	<0.6	—	0.5	1.3	—	<0.5
	07/06/90	<50	<0.3	<0.3	<0.3	<0.6	—	<0.5	<0.5	—	<0.5
	10/03/90	<50	<0.3	<0.3	<0.3	<0.6	—	<0.5	0.83	—	<0.5
	08/23/91	220	16	22	5.5	16	—	<0.5	0.6	—	<0.5
	11/22/91	<50	<0.5	<0.5	<0.5	0.6	—	0.6	1.0	<0.5	<0.5
	02/26/92	<50	4.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	<0.5	<0.5
	05/22/92	<50	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	<0.5	<0.5
	09/29/92	<50	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	—	<0.5
	12/23/92	<50	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	—	<0.5
	03/22/93	<50	7	<0.5	<0.5	<0.5	—	<0.5	<0.5	—	<0.5
	06/07/93	<50	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	—	<0.5
MW-4	03/14/89	3,000	810	200	30	130	<3,000	<20.0	<5.0	<20	<5
	06/09/89	900	440	13	22	40	—	<20.0	<5.0	60	<5
	09/14/89	540	220	2	6.1	9.3	—	<1.0	2.3	<1	<0.2
	12/08/89	150	18	<0.3	1	<0.6	—	<0.5	1.9	—	<0.5
	03/19/90	270	50	<0.3	0.7	<0.6	—	<0.5	0.8	—	<0.5
	07/06/90	140	0.7	<0.3	0.5	<0.6	—	<0.5	0.79	—	<0.5
	10/03/90	180	<0.3	<0.3	2	<0.6	—	<0.5	0.5	—	<0.5
	08/23/91	400	9.9	6.8	3.1	7.1	—	<0.5	<0.5	—	<0.5
	11/22/91	130	3.4	1.3	3.5	6	—	<0.5	<0.5	<0.5	<0.5
	02/26/92	520	15	2.7	6.1	8.6	—	<0.5	<0.5	<0.5	<0.5
	05/22/92	460	20	2.8	5	6.9	—	<0.5	<0.5	<0.5	<0.5
	09/29/92	160	1.1	1.7	0.8	2.8	—	<0.5	<0.5	—	<0.5
	12/23/92	110	0.7	0.5	0.9	1.7	—	—	—	—	—
	03/22/93	930	9	3	7	8	—	—	—	—	—
	06/07/93	240	2	0.9	3	3	—	—	—	—	—

TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-0019
210 Grand Avenue, Oakland, California

Well	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG	Chloroform	1,2-DCA	F113	TCA
MW-5 (D) (D) (T)	03/14/89	20,000	6,600	1,600	270	1,100	<3,000	<100	<20	<20	<20
	06/09/89	15,000	>2,800	270	240	640	—	<20	28	<20	<5
	06/09/89	12,000	5,100	300	240	700	—	<200	<50	<20	<50
	09/14/89	15,000	>730	>320 ^b	>290 ^b	440	—	<10	<2	<20	<2
	09/14/89	15,000	3,300	450	490	730	—	<100	<20	100	<20
	09/14/89	16,000	3,100	550	400	690	—	<50	<10	<50	<10
	12/08/89	20,000	4,600	640	390	1,300	—	<0.5	27	—	<0.5
	03/19/90	25,000	6,500	1,200	450	2,200	—	<0.5	10	—	0.7
	06/06/90	30,000	5,600	890	210	1,400	—	<0.5	<0.5	—	<0.5 ^c
	10/03/90	29,000	6,000	790	270	1,500	—	<0.5	<0.5	—	<0.5 ^d
	08/23/91	36,000	6,100	1,200	460	2,600	—	<0.5	3.9	—	<0.5 ^e
	11/22/91	21,000	8,000	1,500	530	2,600	—	<0.5	3.9	<0.5	<0.5 ^{l,m}
	02/26/92	43,000	14,000	1,600	640	4,700	—	<0.5	2.0	<0.5	<0.5
	05/22/92	72,000	18,000	8,100	920	10,000	—	<0.5	6.8	<0.5	<0.5
	09/29/92	54,000	14,000	1,400	740	8,100	—	<0.5	4.4	—	<0.5
	12/23/92	38,000	8,400	910	530	5,300	—	<0.5	2.9	—	<0.5
	03/22/93	—	—	—	—	—	—	—	—	—	—
06/07/93	24,000	3,000	280	360	1,200	—	<0.5	<0.5	—	<0.5	
MW-6	07/06/90	210	<0.3	<0.3	3	7	—	<0.5	<0.5	—	<0.5
	10/03/90	320	<0.3	0.3	1	<0.6	—	<0.5	<0.5	—	<0.5
	08/23/91	320	1.7	<0.5	2.1	<0.5	—	<0.5	<0.5	—	<0.5
	11/22/91	190	1.9	2.2	5.4	7.7	—	<0.5	<0.5	<0.5	<0.5
	02/26/92	120	2.0	1.5	3.5	5.1	—	<0.5	<0.5	<0.5	<0.5
	05/22/92	160	1.1	0.6	0.9	1	—	<0.5	<0.5	<0.5	<0.5
	09/29/92	85	0.5	1.4	0.5	0.64	—	<0.5	<0.5	—	<0.5
	12/23/92	140	0.7	0.7	0.9	2.1	—	—	—	—	—
	03/22/93	71	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—
	06/07/93	85	<0.5	<0.5	2	1	—	—	—	—	—

TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-0019
210 Grand Avenue, Oakland, California

Well	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG	Chloroform	1,2-DCA	F113	TCA
MW-7	07/06/90	<50	<0.3	<0.3	<0.3	<0.6	<1,000	<0.5	<0.5	--	<0.5
	10/03/90	<50	<1.5	<1.5	<1.5	<3	--	<0.5	<0.5	--	<0.5
	08/23/91	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5
	11/22/91	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5
	02/26/92	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5
	05/22/92	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5
	09/29/92	<50	<0.5	<0.5	<0.5	0.6	--	<0.5	<0.5	--	<0.5
	12/23/92	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
	03/22/93	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
	06/07/93	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
MW-8	07/06/90	<50	<0.3	<0.3	<0.3	<0.6	<1,000	<0.5	<0.5	--	<0.5
	10/03/90	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5
	08/23/91	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5
	11/22/91	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5
	02/26/92	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5
	05/22/92	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5
	09/29/92	--	--	--	--	--	--	--	--	--	--
	12/23/92	<50	<0.5	7.2	0.6	2.5	--	--	--	--	--
	03/22/93	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
	06/07/93	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
MW-9	07/06/90	<50	<0.3	<0.3	<0.3	<0.6	<1,000	<0.5	<0.5	--	<0.5
	10/03/90	<50	<0.3	<0.3	<0.3	<0.6	--	<0.5	<0.5	--	<0.5
	08/23/91	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5
	11/22/91	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5
	02/26/92	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5
	05/22/92	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5
	09/29/92	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	<0.5
	12/23/92	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
	03/22/93	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
	06/07/93	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--

TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-0019
210 Grand Avenue, Oakland, California

Well	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG	Chloroform	1,2-DCA	F113	TCA
TB-LB	12/08/89	<100	<0.1	<0.2	<0.1	<0.2	---	<0.5	<0.1	---	<0.1
	06/09/89	<50	<0.5	<0.5	<0.1	<0.2	---	<0.5	<0.1	<20.0	<0.1
	09/14/89	<50	<0.1	<0.5	<0.1	<0.2	---	<0.5	<0.1	<0.5	<0.1
	12/08/89	<50	<0.3	<0.3	<0.3	<0.6	---	4.4	<0.5	---	1.9
	03/19/90	<50	<0.3	<0.3	<0.3	<0.6	---	<0.5	<0.5	---	<0.5
	07/06/90	<50	<0.3	<0.3	<0.3	<0.6	---	<0.5	<0.5	---	<0.5
	10/03/90	<50	<0.3	<0.3	<0.3	1	---	<0.5	<0.5	---	<0.5
	08/23/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	11/22/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	<0.5	g,h,i
	02/26/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	05/22/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	09/29/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	12/23/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	03/22/93	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
06/07/93	<50	<0.5	<0.5	<0.5	<0.5	1	---	---	---	---	
Bailer Blank	08/23/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	11/22/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	<0.5	g,j,k
	02/26/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	05/22/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---

TPH-G = Total petroleum hydrocarbons-as-gasoline
 TOG = Total oil and grease
 1,2-DCA = 1,2-Dichloroethane
 F113 = Trichlorotrifluoroethane (Freon 113)
 TCA = 1,1,1-Trichloroethane
 TB-LB = Trip blank/Laboratory blank
 --- = Not analyzed, not applicable
 (D) = Duplicate sample
 (T) = Triplicate sample

Data before May 22, 1992, were taken from a report prepared by Sierra Environmental Services, March 13, 1992. Results in parts per billion.

a = Well obstructed during site demolition.
 b = Saturated column.
 c = 1,2-Dichloropropane was detected at 1.2 ppb.
 d = 1,2-Dichloropropane and trichloroethane were detected at 2 ppb and 0.74 ppb, respectively.
 e = 1,2-Dichloropropane was detected at 0.9 ppb.
 f = Well destroyed November 15, 1991.
 g = Bromodichloromethane was detected at 2.4 ppb.
 h = Dibromochloromethane was detected at 2.4 ppb.
 i = Bromoform was detected at 4.8 ppb.
 j = Dibromochloromethane was detected at 2.2 ppb.
 k = Bromoform was detected at 4.8 ppb.
 l = TCE was detected at 1.0 ppb.
 m = 1,2-Dichloropropane was detected at 0.8 ppb.



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Client Number: 020204096
Consultant Project Number: 020204096
Facility Number: 9-0019
Project ID: 210 Grand Ave.
Oakland
Work Order Number: C3-06-0114

June 18, 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 06/07/93.

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: 020204096
 Consultant Project Number: 020204096
 Facility Number: 9-0019
 Project ID: 210 Grand Ave.
 Oakland
 Work Order Number: C3-06-0114

Table 1

ANALYTICAL RESULTS

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

EPA Methods 5030, 8020, and Modified 8015^a

GTEL Sample Number		01	03	05	07
Client Identification		TB-LB	MW7	MW9	MW3
Date Sampled		06/07/93	06/07/93	06/07/93	06/07/93
Date Analyzed		06/15/93	06/16/93	06/16/93	06/16/93
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	1	<0.5	<0.5	<0.5
BTEX, total	--	1	--	--	--
TPH as Gasoline	50	<50	<50	<50	<50
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		90.8	105	87.2	89.8

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%.

Client Number: 020204096
 Consultant Project Number: 020204096
 Facility Number: 9-0019
 Project ID: 210 Grand Ave.
 Oakland
 Work Order Number: C3-06-0114

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		09	11	13	15
Client Identification		MW8	MW1	MW6	MW4
Date Sampled		06/07/93	06/07/93	06/07/93	06/07/93
Date Analyzed		06/16/93	06/16/93	06/16/93	06/16/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<0.5	<0.5	2
Toluene	0.5	<0.5	<0.5	<0.5	0.9
Ethylbenzene	0.5	<0.5	<0.5	2	3
Xylene, total	0.5	<0.5	<0.5	1	3
BTEX, total	--	--	--	3	9
TPH as Gasoline	50	<50	<50	85	240
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		87.9	88.5	91.5	90.6

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%.

Client Number: 020204096
 Consultant Project Number: 020204096
 Facility Number: 9-0019
 Project ID: 210 Grand Ave.
 Oakland
 Work Order Number: C3-06-0114

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		17	Q061593-1		
Client Identification		MW5	METHOD BLANK		
Date Sampled		06/07/93	--		
Date Analyzed		06/16/93	06/15/93		
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	3000	<0.5		
Toluene	0.5	280	<0.5		
Ethylbenzene	0.5	360	<0.5		
Xylene, total	0.5	1200	<0.5		
BTEX, total	--	4800	--		
TPH as Gasoline	50	24000	<50		
Detection Limit Multiplier		50*	1		
BFB surrogate, % recovery		93.8	94.0		

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%.

* Detection limit raised due to high concentration of target compounds.

Client Number: 020204096
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 Oakland
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Sample and Sample Duplicate Results

Matrix: Water

Analyte	Sample ID	Date of Analysis	Sample Results	Sample Duplicate Results	Units	RPD ^a , %
EPA 8010:						
Chlorobenzene	C3060047-7	06/15/93	ND	ND	ug/L	NA
Benzene	C3060047-7	06/15/93	ND	ND	ug/L	NA
Toluene	C3060047-7	06/15/93	ND	ND	ug/L	NA
Ethylbenzene	C3060047-7	06/15/93	ND	ND	ug/L	NA
Xylene, total	C3060047-7	06/15/93	ND	ND	ug/L	NA
Chloroform	C3060047-7	06/15/93	ND	ND	ug/L	NA
Trichloroethene	C3060047-7	06/15/93	1160	1290	ug/L	10.6
Wet Chemistry:						
Dissolved Solids, total	C3060114-17	06/10/93	833	828	mg/L	0.602

NA = Not Applicable.
 ND = Not Detected.

Client Number: 020204096
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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
Modified EPA 8020:							
Benzene	Reagent Water	20.0	ug/L	97.0	96.0	1.0	70 - 147
Toluene	Reagent Water	20.0	ug/L	100	98.5	1.5	67 - 150
Ethylbenzene	Reagent Water	20.0	ug/L	93.5	82.5	12.5	69 - 145
Xylene, total	Reagent Water	60.0	ug/L	98.2	96.5	1.7	71 - 152
EPA 8010:							
Chlorobenzene	LCS	20.0	ug/L	91.5	NA	NA	62 - 111
Benzene	LCS	20.0	ug/L	78.0	NA	NA	58 - 121
Toluene	LCS	20.0	ug/L	84.0	NA	NA	60 - 120
Ethylbenzene	LCS	20.0	ug/L	90.0	NA	NA	63 - 138
Chloroform	LCS	20.0	ug/L	108	NA	NA	56 - 138
Trichloroethene	LCS	20.0	ug/L	104	NA	NA	82 - 181

NA = Not Applicable.

Client Number: 020204096
 Consultant Project Number: 020204096
 Facility Number: 9-0019
 Project ID: 210 Grand Ave.
 Oakland
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Table 1

ANALYTICAL RESULTS
 Purgeable Halocarbons in Water
 EPA Method 601^a

GTEL Sample Number		07	17	061593GCC	
Client Identification		MW3	MW5	METHOD BLANK	
Date Sampled		06/07/93	06/07/93	-	
Date Analyzed		06/15/93	06/15/93	06/15/93	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	<0.5	<0.5	<0.5	
Bromomethane	0.5	<0.5	<0.5	<0.5	
Vinyl chloride	1	<1	<1	<1	
Chloroethane	0.5	<0.5	<0.5	<0.5	
Methylene chloride	0.5	<0.5	<0.5	<0.5	
1,1-Dichloroethene	0.5	<0.5	<0.5	<0.5	
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5	
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	
Chloroform	0.5	<0.5	<0.5	<0.5	
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5	
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	
1,2-Dichloropropane	0.5	<0.5	0.6	<0.5	
cis-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	
Trichloroethene	0.5	<0.5	<0.5	<0.5	
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	
Dibromochloromethane	0.5	<0.5	<0.5	<0.5	
1,1,2-Trichloroethane	0.5	<0.5	<0.5	<0.5	
trans-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	
2-Chloroethylvinyl ether	1	<1	<1	<1	
Bromoform	0.5	<0.5	<0.5	<0.5	
Tetrachloroethene	0.5	<0.5	<0.5	<0.5	
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	<0.5	
Chlorobenzene	0.5	<0.5	<0.5	<0.5	
1,2-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	
1,3-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	
1,4-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	
Detection Limit Multiplier		1	1	1	
BFB surrogate, % recovery		86.8	113	83.0	

a. Federal Register, Vol. 49, October 26, 1984. BFB surrogate recovery acceptability limits are 65-135%.

Client Number: 020204096
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 Oakland
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ANALYTICAL RESULTS

Matrix: Water

					Sample Number	03	05	07	09
					Sample Identification	MW-7	MW-9	MW-3	MW-8
					Date Sampled	06/07/93	06/07/93	06/07/93	06/07/93
Test Description	Units	Detection Limit	Method	Date Analyzed	Test Result				
Total Dissolved Solids	mg/L	10	EPA/160.1	06/10/93	3700	660	710	680	

Note: Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Rev. O, U.S. EPA, November, 1986.

Client Number: 020204096
 Consultant Project Number: 020204096
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 Project ID: 210 Grand Ave.
 Oakland
 Work Order Number: C3-06-0114

ANALYTICAL RESULTS

Matrix: Water

		Sample Number		11	13	15	17
		Sample Identification		MW-1	MW-6	MW-4	MW-5
		Date Sampled		06/07/93	06/07/93	06/07/93	06/07/93
Test Description	Units	Detection Limit	Method	Date Analyzed	Test Result		
Total Dissolved Solids	mg/L	10	EPA/160.1	06/10/93	840	1600	750 830

Note: Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Rev. O, U.S. EPA, November, 1986.

Client Number: 020204096
 Consultant Project Number: 020204096
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 Project ID: 210 Grand Ave.
 Oakland
 Work Order Number: C3-06-0114

ANALYTICAL RESULTS

Matrix: Water

Sample Number					0610993 TDS			
Sample Identification					METHOD BLANK			
Date Sampled					--			
Test Description	Units	Detection Limit	Method	Date Analyzed	Test Result			
Total Dissolved Solids	mg/L	10	EPA/160.1	06/10/93	<10			

Note: Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Rev. O, U.S. EPA, November, 1986.

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

Chevron Facility Number 9-0019
Facility Address 210 Grand Ave., Oakland
Consultant Project Number 020204096
Consultant Name Groundwater Technology, Inc.
Address 4057 Port Chicago Hwy, Concord, CA 94520
Project Contact (Name) Nicole Merchant
(Phone) 671-2387 (Fax Number) 685-9148

Chevron Contact (Name) Mark Miller
(Phone) 842-8134
Laboratory Name GTTEL
Laboratory Release Number 876-6990
Samples Collected by (Name) Randy Ray Phillips
Collection Date 6/7/93
Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes To Be Performed												TB-LB Do NOT Bill Page 1 of 2 Remarks
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Greases (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	Hold	Total Dissolved Solids			
TB-LB	01-	1	W	G	2:30	HCL	Yes	X											Seals Intact 2°C HCL CRS C3060114 C3060114	
RBMW7	02	1	W		2:30										X					
MW7	03	4	W		2:30			X	N							X				
RBMW9	04	1	W		2:40										X					
MW9	05	4	W		2:40			X	N							X				
RBMW3	06	1	W		2:40										X					
MW3	07	7	W		2:50			X	N		X					X				
RBMW8	08	1	W		3:00										X					
MW8	09	4	W		3:00			X	N							X				
RBMW1	10	1	W		3:10										X					
MW1	11	4	W		3:10			X	N							X				
RBMW6	12	1	W		3:20										X					
MW6	13	4	W	Y	3:20	Y	Y	X	N							X				

*H. Lakomy
6/8/93*

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>GTI</u>	Date/Time <u>6/7/93 5:30</u>	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>	Organization	Date/Time <u>6/23/93 5:30</u>	

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 9-0019
Facility Address 210 Grand Ave, Oakland
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Consultant Name Groundwater Technology, Inc.
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Collection Date 6/7/93
Signature Randy Ray Phillips

Number	Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water 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 (8520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	Hold	Total Dissolved Solids							
BBMW4	14	1	W	G	3:30	Hcl	Yes										X						200 HCl ice CB	
MW4	15	4	W		3:30			X	N															
RBMW5	16	1	W		3:40													X						
MW5	19	7	W	V	3:40	V	V	X			X													

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Relinquished By (Signature) <u>Randy Ray Phillips</u>	Organization <u>GTI</u>	Date/Time <u>6/7/93 5:30</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>Quana B. [unclear]</u>		Date/Time <u>6/19/93</u>	

COC-3.0mg/LUS 9/1/93