Chevron U.S.A. Inc.
2410 Camino Ramon, San Ramon, California • Phone (415) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

Marketing Department

July 31, 1991

Mr. Gil Wistar
Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

Re: Former Chevron Service Station #9-1026
3701 Broadway
Oakland, CA 94611

Dear Mr. Wistar:

Enclosed we are forwarding the Quarterly Groundwater Monitoring Report dated July 18, 1991, conducted by our consultant Weiss Associates 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 concentrations were detected at levels ranging from ND to 22,000 ppb. Depth to groundwater was measured at approximately 13 to 18-feet below grade, and the direction of flow fluctuates from the southwest to the south.

The abandonment of monitor wells B-6 and B-7, and the reconstruction of monitor well B has been completed. Enclosed is a copy of a letter prepared by Weiss Associates dated June 25, 1991, documenting the abandonment and reconstruction of the said wells.

As mentioned in my letter to you dated July 16, 1991, we are proceeding with the conducting of a pump test to assess hydraulic characteristics at the site and the deepening of existing monitor wells F and B-1 due to a lowering of groundwater surface beneath the site. Well F will be constructed as a 2-inch diameter well to allow for continued downgradient monitoring. Well B-1 will be constructed as a 4-inch diameter well for possible future extraction. This phase of work has been held up while required documentation is being compiled as part of the City of Oakland's encroachment permitting process.

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If you have any questions or comments, please do not hesitate to contact me at (415) 842-9581.

Very truly yours,
CHEVRON U.S.A. INC.

Nancy Vukelich
Environmental Engineer

Enclosures

cc: Mr. Rich Hiett, RWQCB-Bay Area
Ms. B.C. Brummett-Owen
File (9-1026Q3 Listing)

Mr. Bruce Bercovich
Kay & Merkel
100 The Embarcadero, 3rd Floor
San Francisco, CA 94105

1026

JUN 28 '91 T.L.H.

WEISS ASSOCIATES
Geologic and Environmental Services
Fax: 415-547-5043 Phone: 415-547-5420
5500 Shellmound Street, Emeryville, CA 94608

June 25, 1991

Ms. Nancy Vukelich
Chevron USA
P.O. Box 5004
San Ramon, CA 94583-0804

1026

Re: Former Chevron Service Station #9~~-1570-~~
3701 Broadway
Oakland, California
WA Job #4-418-01

Dear Ms. Vukelich:

This letter documents Weiss Associates' (WA) destruction of monitoring wells B-6 and B-7, and the reconstruction of monitoring well B at the site referenced above. The well destruction and reconstruction activities were performed by Soils Exploration Services of Vacaville, California (license No. C-57 582696) under the direction of WA Staff Geologist Robert E. Kitay and the supervision of James W. Carmody, Certified Engineering Geologist No. 1576.

Monitoring wells B-6 and B-7, constructed of corrugated steel casing, were destroyed by pressure grouting Portland Type I,II cement mixed with 3 to 5% bentonite powder by volume into the wells. The upper portions of the corrugated steel casings could not be removed and were left in place. Therefore, we extended the grout to the ground surface and completely sealed the existing concrete vaults with neat cement.

Monitoring well B was reconstructed by installing a smaller diameter casing inside the existing 12-inch diameter well. The new well was screened with 4-inch diameter 0.02-inch slotted schedule 40 PVC casing from 15 to 35 ft depth. The upper 15 ft of well consists of 4-inch diameter blank PVC casing. The annular space between the existing and the new well was filled with #3 Lonestar Monterey sand from 13 to 35 ft depth, a hydrated bentonite layer from 11 to 13 ft depth, and a sanitary seal consisting of Portland Type I, II cement mixed with 3 to 5% bentonite powder by volume from 11 ft to the ground surface. The existing concrete vault was not changed since this well may be used for ground water extraction and the wellhead and vault may be modified in the future.

We are pleased to provide hydrogeologic consulting services to Chevron and trust that this letter meets your needs. If you have any questions, please feel free to call.

Sincerely,
Weiss Associates,

Robert E. Kitay
Staff Geologist

James W. Carmody, C.E.G.
Senior Project Hydrogeologist

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cc: Mr. Wyman Hong, Alameda County Flood Control and Water Conservation District - Zone 7, 5997 Parkside Drive, Pleasanton, CA 94588

WEISS ASSOCIATES
Geologic and Environmental Services
Fax: 415-547-5043 Phone: 415-547-5420
5500 Shellmound Street, Emeryville, CA 94608

July 18, 1991

Nancy Vukelich
Chevron U.S.A., Inc.
P.O. Box 5004
San Ramon, CA 94583-0804

Re: Second Quarter 1991
Ground Water Monitoring Report
Former Chevron Service Station #9-1026
3701 Broadway
Oakland, California
WA Job #4-418-01

Dear Ms. Vukelich:

As you requested, Weiss Associates (WA) is providing this Ground Water Monitoring Report for the site referenced above (Figure 1). WA sampled the ground water monitoring wells (Figure 2) on June 19, 1991, in accordance with the requirements and procedures of the California Regional Water Quality Control Board - San Francisco Bay Region and local regulatory agencies.

SAMPLING PROCEDURES

Prior to purging and sampling the wells, WA measured the depth to ground water in each well to the nearest 0.01 ft using an electric sounder (Table 1). We also checked the wells for floating hydrocarbons or sheen. No floating hydrocarbons was detected in any well. Sheen was observed on purge water from monitoring well B.

WA collected ground water samples for analysis after purging at least 3 well-casing volumes of ground water from each well. Each sample was decanted from a steam-cleaned or dedicated bailer into the appropriate clean sample containers and delivered to a California-certified laboratory following proper sample preservation and chain-of-custody procedures. Purged ground water was stored onsite in DOT-approved 55-gallon drums until properly disposed of offsite.

MONITORING AND ANALYTIC RESULTS

The top-of-casing elevation, depth to ground water and the ground water elevation for each well is presented in Table 1. The ground water elevation contours and ground water flow direction are shown on Figure 2.

Current and historical ground water analytic results are summarized in Table 2. The water sample collection records, and the analytic report and chain-of-custody forms are included as Attachments A and B, respectively. Ground water elevation contour maps for the past year are included in Figure 3.

PROPOSED WORK SCHEDULE

The Third Quarter 1991 ground water sampling is scheduled for September 17, 1991. We will submit a report presenting the field and analytic data by November 1991.

We appreciate this opportunity to provide hydrogeologic consulting services to Chevron USA and trust that this submittal meets your needs. Please call if you have any questions regarding this report.

Sincerely,
Weiss Associates

Mariette Shin
Staff Geologist

James W. Carmody, C.E.G.
Senior Project Hydrogeologist

MMS/JWC:cr

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Attachments A - Water Sample Collection Records
B - Analytic Report and Chain-of-Custody Forms

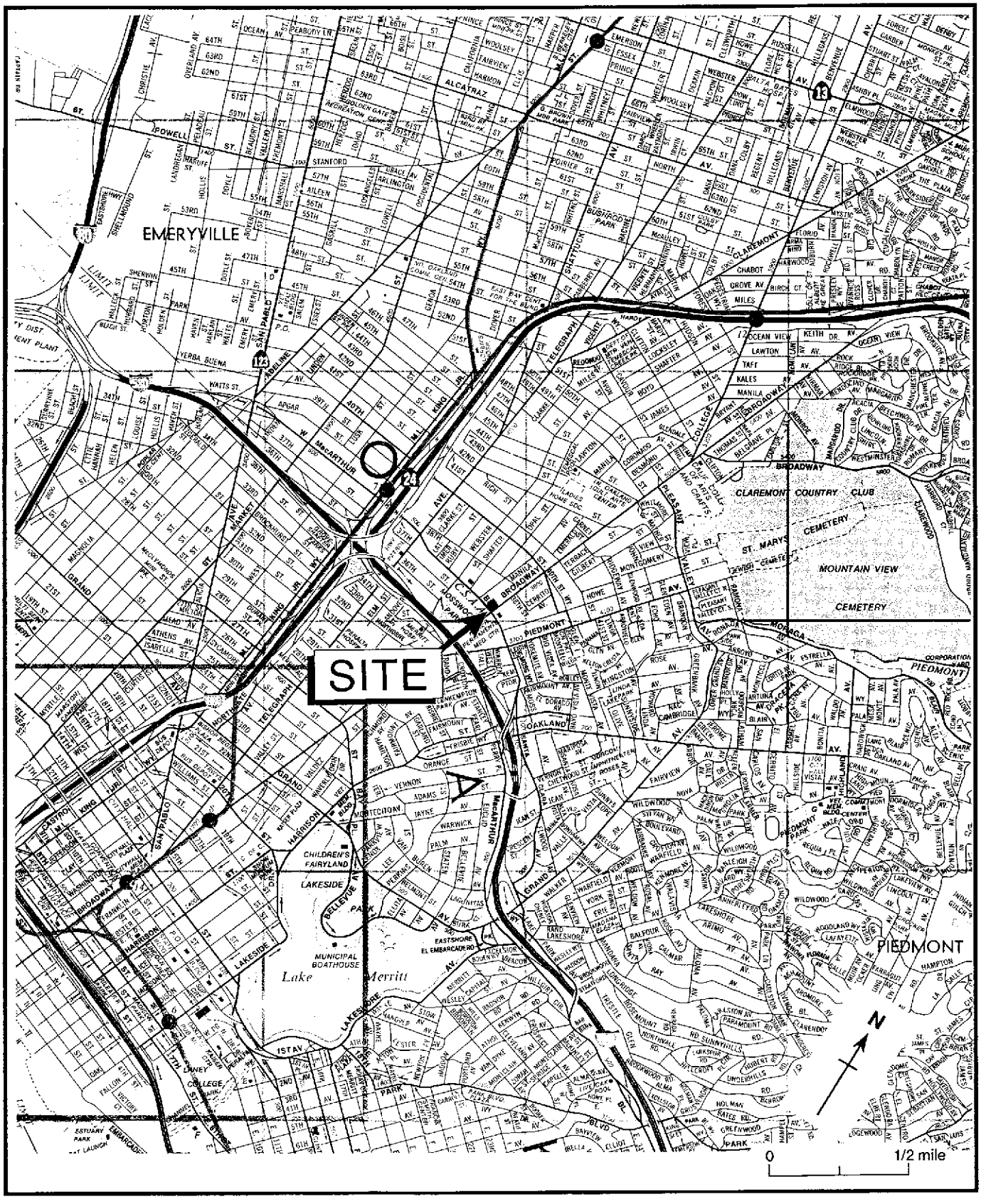

Figure 1. Site Location Map - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California

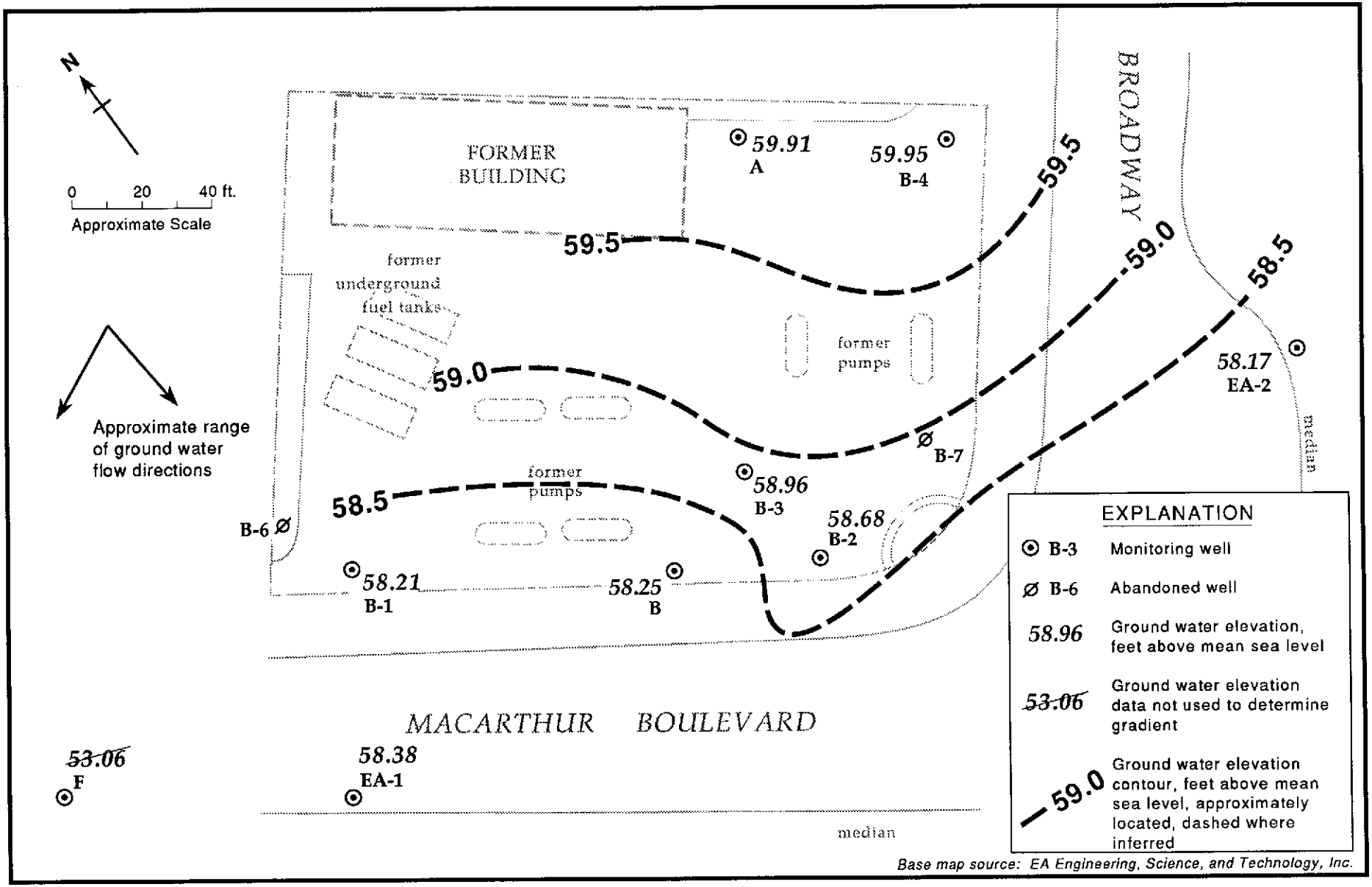

Figure 2. Monitoring Well Locations and Ground Water Contours - June 19, 1991 - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California

7/24/91

TABLE 1. Ground Water Elevation Data, Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons in Well (ft)	Ground Water Elevation (ft above msl)
A	05/10/89	75.28[a]	13.92		61.36
	08/09/89		15.62		59.66
	11/09/89		15.95		59.33
	02/08/90		14.73		60.55
	05/10/90		15.48		59.80
	08/09/90		15.66		59.62
	11/13/90		16.48		58.80
	04/05/91		13.22		62.06
	06/19/91		15.37		59.91
B	05/10/89	73.39[a]	13.97	.20	59.58[b]
	08/09/89		15.69	.20	57.86[b]
	11/09/89		15.29	.08	58.16[b]
	02/08/90		14.46		58.93
	05/10/90		15.07		58.32
	08/09/90		15.12		58.27
	11/13/90		15.76		57.63
	04/05/91		13.38		60.01
	06/19/91		15.14		58.25
B-1	05/10/89	71.77[a]	12.58		59.19
	08/09/89		14.09		57.68
	11/09/89		14.06		57.71
	02/08/90		12.65		59.12
	05/10/90		13.62		58.15
	08/09/90		13.87		57.90
	11/13/90		14.38		57.39
	04/05/91		11.73		60.04
	06/19/91		13.56		58.21
B-2	05/10/89	74.51[a]	14.58		59.93
	08/09/89		16.06		58.45
	11/09/89		16.95		57.56
	02/08/90		15.56		58.95
	05/10/90		15.94		58.57
	08/09/90		15.97		58.54
	11/13/90		16.70		57.81
	04/05/91		14.20		60.31
	06/19/91		15.83		58.68

-- Table 1 continues on next page --

TABLE 1. Ground Water Elevation Data, Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons in Well (ft)	Ground Water Elevation (ft above msl)
B-3	05/10/89	74.12[a]	14.02		60.01
	08/09/89		15.38		58.74
	11/09/89		15.55	.05	58.61[b]
	02/08/90		14.68	<0.01	59.44[b]
	05/10/90		15.15	.02	58.99[b]
	08/09/90		15.27	<0.01	58.85[b]
	11/13/90		16.04	.06	58.13[b]
	04/05/91		13.30	<0.01	60.82[b]
	06/19/91		15.16		58.96
B-4	05/10/89	76.43[a]	14.93		61.50
	08/09/89		16.65		59.78
	11/09/89		16.99		59.44
	02/08/90		16.05		60.38
	05/10/90		16.49		59.94
	08/09/90		16.64		59.79
	11/13/90		17.42		59.01
	04/05/91		14.66		61.77
	06/19/91		16.48		59.95
B-6	05/10/89	72.66[a]	12.11		60.55
	08/09/89		14.72		57.94
	11/09/89		13.85		58.81
	02/08/90		7.73		64.93
	05/10/90		[c]		
	08/09/90		14.51		58.15
	11/13/90		14.86		57.80
	04/05/91		10.43		62.23
	06/19/91[c]		---		---
B-7	05/10/89	75.40[a]	14.73		60.67
	08/09/89		16.36		59.04
	11/09/89		16.64		58.76
	02/08/90		15.69		59.71
	05/10/90		[c]		
	08/09/90		16.31		59.09
	11/13/90		17.09		58.31
	04/05/91		14.36		61.04
	06/19/91[c]		---		---

-- Table 1 continues on next page --

TABLE 1. Ground Water Elevation Data, Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons in Well (ft)	Ground Water Elevation (ft above msl)
EA-1	05/10/89	73.94[a]	14.56		59.38
	08/09/89		16.09		57.85
	11/09/89		15.84		58.10
	02/08/90		15.05		58.89
	05/10/90		15.65		58.29
	08/09/90		15.67		58.27
	11/13/90		16.32		57.62
	04/05/91		14.03		59.91
	06/19/91		15.56		58.38
EA-2	05/10/89	75.24[a]	15.95		59.29
	08/09/89		17.45		57.79
	11/09/89		17.41		57.83
	02/08/90		16.57		58.67
	05/10/90		17.12		58.12
	08/09/90		17.20		58.04
	11/13/90		17.88		57.36
	04/05/91		15.54		59.70
	06/19/91		17.07		58.17
F	05/10/89	72.01[a]	18.70		53.31
	08/09/89		19.03		52.98
	11/09/89		19.02		52.99
	02/08/90		18.70		53.31
	05/10/90		18.98		53.03
	08/09/90		18.95		53.06
	11/13/90		19.10		52.91
	04/05/91		---[d]		---
	06/19/91		18.95		53.06

[a] = Top-of-Casing surveyed on 02/08/90
[b] = Ground water elevation adjusted for floating hydrocarbons in the well by the relation: Corrected ground water elevation = top-of-casing - depth to water + (0.8 x hydrocarbon thickness)
[c] = Well abandoned in May 1991.
[d] Water level not recorded

TABLE 2. Analytic Results for Ground Water - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California

Well ID	Date Sampled	Depth-to Water (ft)	Analytical Lab	TPH-G	B	E	T	X
				<----------parts per billion (µg/L) ---------->				
A	05-09-89	13.92	SAL	11,000	260	94	<2	230
	08-09-89	15.62	SAL	12,000	370	100	<1.5	240
	11-09-89	15.95	SAL	16,000	690	180	10	350
	02-08-90	14.73	GTEL	14,000	600	120	7	270
	05-10-90	15.48	GTEL	16,000	840	140	4.8	340
	08-09-90	15.66	GTEL	17,000	510	170	40.0	280
	11-13-90	16.48	CEC	9,000	570	86	3.1	170
	03-27-91	13.22	SAL	8,000	660	110	<5	250
	06-19-91	**15.37**	**SAL**	**8,900**	**740**	**120**	**<3**	**280**
B	05-09-89 [a]	13.97	---	---	---	---	---	---
	08-09-89 [a]	15.69	---	---	---	---	---	---
	11-09-89 [a]	15.29	---	---	---	---	---	---
	02-08-90 [b]	14.46	---	---	---	---	---	---
	05-10-90 [c]	15.07	---	---	---	---	---	---
	08-09-90 [a]	15.12	---	---	---	---	---	---
	11-13-90 [d]	15.76	---	---	---	---	---	---
	03-27-91 [d]	13.38	---	---	---	---	---	---
	06-19-91	**15.14**	**SAL**	**26,000**	**7,100**	**430**	**370**	**1,000**
B-1	05-10-89	12.58	SAL	16,000	2,300	81	260	740
	08-09-89	14.09	SAL	12,000	2,600	100	340	870
	11-09-89	14.06	SAL	17,000	340	110	140	760
	02-08-90	12.65	GTEL	5,500	70	17	19	150
	05-10-90	13.62	GTEL	18,000	770	73	110	600
	08-09-90	13.87	GTEL	82,000	750	95	66	980
	11-13-90	14.38	CEC	43,000	1,300	74	120	760
	03-27-91	11.73	SAL	18,000	580	94	92	770
	06-19-91	**13.56**	**SAL**	**21,000**	**910**	**96**	**56**	**810**
B-2	05-09-89	14.58	SAL	170,000	30,000	2,300	8,400	12,000
	08-10-89	16.06	SAL	60,000	29,000	2,400	8,700	12,000
	11-09-89	16.95	SAL	110,000	32,000	2,800	5,500	12,000
	02-08-90	15.56	GTEL	67,000	28,000	2,300	5,900	11,000
	05-10-90	15.94	GTEL	69,000	24,000	2,000	4,800	11,000
	08-09-90	15.97	GTEL	100,000	33,000	2,100	4,000	12,000
	11-13-90	16.70	CEC	110,000	33,000	2,900	4,300	13,000
	03-27-91	14.20	SAL	160,000	26,000	2,600	3,200	15,000
	06-19-91	**15.83**	**SAL**	**100,000**	**22,000**	**2,000**	**2,500**	**11,000**
B-3	05-10-89	14.02	SAL	70,000	12,000	1,400	9,500	8,900
	08-09-89 [a]	15.38	---	---	---	---	---	---
	11-09-89 [a]	15.55	---	---	---	---	---	---
	02-08-90 [a]	14.68	---	---	---	---	---	---
	05-10-90 [a]	15.15	---	---	---	---	---	---
	08-09-90 [a]	15.27	---	---	---	---	---	---
	11-13-90 [a]	16.04	---	---	---	---	---	---
	03-27-91 [a]	13.30	---	---	---	---	---	---
	06-19-91	**15.16**	**SAL**	**260,000**	**20,000**	**2,200**	**9,000**	**16,000**

-- Table 2 continues on next page --

TABLE 2. Analytic Results for Ground Water - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID	Date Sampled	Depth-to Water (ft)	Analytical Lab	TPH-G	B	E	T	X
				<----------parts per billion (µg/L) ---------->				
B-4	05-10-89	14.93	SAL	3,600	840	120	34	200
	08-09-89	16.65	SAL	<500	4,200	370	130	260
	08-09-89 (dup)	16.65	SAL	5,000	4,200	400	83	250
	11-09-89	16.99	SAL	14,000	6,000	530	70	300
	02-08-90	16.05	GTEL	12,000	5,400	460	130	320
	05-10-90	16.49	GTEL	16,000	7,400	530	120	350
	08-09-90	16.64	GTEL	21,000	7,000	550	100	320
	11-13-90	17.42	CEC	17,000	8,500	500	120	300
	03-27-91	14.66	SAL	14,000	7,700	610	75	210
	06-19-91	**16.48**	**SAL**	**16,000**	**7,800**	**550**	**110**	**340**
B-6	05-09-89	12.11	SAL	26,000	120	250	110	1,300
	08-09-89	14.72	SAL	19,000	470	440	150	1,400
	11-09-89	13.85	SAL	13,000	70	36	36	440
	02-08-90	7.73	GTEL	2,900	16	10	5	58
	05-10-90 [c]	---	---	---	---	---	---	---
	08-09-90	14.51	GTEL	14,000	55	130	3	500
	11-13-90 [d]	14.86	---	---	---	---	---	---
	03-27-91 [d]	10.43	---	---	---	---	---	---
	06-19-91 [e]	---	---	---	---	---	---	---
B-7	05-10-89	14.73	SAL	210,000	13,000	2,000	19,000	20,000
	08-09-89	16.36	SAL	672,000	8,700	2,700	17,000	30,000
	11-09-89	16.64	SAL	150,000	7,000	1,800	12,000	16,000
	02-08-90	15.69	GTEL	41,000	2,500	1,100	6,900	11,000
	05-10-90 [c]	---	---	---	---	---	---	---
	08-09-90	16.31	GTEL	50,000	1,100	640	3,900	7,200
	11-13-90 [d]	17.09	---	---	---	---	---	---
	03-27-91 [d]	14.36	---	---	---	---	---	---
	06-19-91 [e]	---	---	---	---	---	---	---
EA-1	05-09-89	14.56	SAL	<500	<0.5	<0.5	<0.5	<0.5
	08-09-89	16.09	SAL	<500	<0.5	<0.5	<0.5	<0.5
	11-09-89	15.84	SAL	<500	<0.5	<0.5	<0.5	<0.5
	02-08-90	15.05	GTEL	<50	<0.3	<0.3	<0.3	<0.6
	05-10-90	15.65	GTEL	<50	1	<0.3	<0.3	<0.6
	08-09-90	15.67	GTEL	<50	<0.3	<0.3	<0.3	<0.6
	11-13-90	16.32	CEC	<50	<0.4	<0.3	<0.3	<0.4
	03-27-91	14.03	SAL	<50	0.7	<0.5	<0.5	<0.5
	06-19-91	**15.56**	**SAL**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

-- Table 2 continues on next page --

TABLE 2. Analytic Results for Ground Water - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID	Date Sampled	Depth-to Water (ft)	Analytical Lab	TPH-G	B	E	T	X
				<----------parts per billion (µg/L) ---------->				
EA-2	05-09-89	15.95	SAL	760	<0.5	1.1	<0.5	<0.5
	08-09-89	17.45	SAL	<500	<0.5	<0.5	<0.5	<0.5
	11-09-89	17.41	SAL	<500	<0.5	<0.5	1	<0.5
	02-08-90	16.57	GTEL	190	<0.3	<0.3	<0.3	<0.6
	05-10-90	17.12	GTEL	<50	<0.3	<0.3	<0.3	<0.6
	08-09-90	17.20	GTEL	120	<0.3	<0.3	<0.3	<0.6
	11-13-90	17.88	CEC	160	<0.4	<0.3	1.0	<0.4
	03-27-91	15.54	SAL	110	<0.5	<0.5	<0.5	<0.5
	06-19-91	**17.07**	**SAL**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
F	05-09-89 [f]	18.70	SAL	<500	<0.5	<0.5	0.6	1.0
	08-09-89 [f]	19.03	---	---	---	---	---	---
	11-09-89 [f]	19.02	---	---	---	---	---	---
	02-08-90	18.70	GTEL	<50	0.4	<0.3	0.3	<0.6
	05-10-90 [f]	18.98	---	---	---	---	---	---
	08-09-90 [f]	18.95	---	---	---	---	---	---
	11-13-90 [f]	19.10	---	---	---	---	---	---
	03-27-91	---	SAL	64	<0.5	<0.5	<0.5	1
	06-19-91 [f]	**18.95**	---	---	---	---	---	---
Travel Blank	05-10-89		SAL	<500	<0.5	<0.5	<0.5	<0.5
	08-09-89		SAL	<500	<0.5	<0.5	<0.5	<0.5
	11-09-89		SAL	<500	<0.5	<0.5	<0.5	<0.5
	02-08-90		GTEL	<50	<0.3	<0.3	<0.3	<0.6
	05-10-90		GTEL	<50	<0.3	<0.3	<0.3	<0.6
	08-09-90		GTEL	<50	<0.3	<0.3	<0.3	<0.6
	11-13-90		CEC	<50	<0.4	<0.3	<0.3	<0.4
	03-27-91		SAL	<50	<0.5	<0.5	<0.5	<0.5
	06-19-91		**SAL**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
Bailer Blank	05-10-89		SAL	<500	<0.5	<0.5	<0.5	<0.5
	02-08-90		GTEL	<50	<0.3	<0.3	0.3	<0.6
	03-27-91		SAL	<50	<0.5	<0.5	<0.5	0.6
DHS MCLs				NE	1	680	100[g]	1,750

-- Table 2 continues on next page --

TABLE 2. Analytic Results for Ground Water - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Abbreviations:

TPH-G = Total Petroleum Hydrocarbons as Gasoline by EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
dup = Duplicate analysis
<n = Not detected at detection limit of n parts per billion
DHS MCLs = Department of Health Services Maximum Contaminant Level for Drinking Water
NE = Not established by DHS

Notes:

[a] = Not sampled due to presence of floating hydrocarbons
[b] = Not sampled due to large volume of evacuation water necessary
[c] = Not sampled because screened interval of well needs to be assessed
[d] = Well was not sampled due to poor surface water seals
[e] = Well abandoned in May 1991
[f] = Not sampled because of insufficient water in the well
[g] = DHS Recommended Action Level for Drinking Water, MCL not established

Analytical Laboratory:

GTEL = GTEL Environmental Laboratories, Inc. of Concord, California
SAL = Superior Analytical Laboratories of San Francisco and Martinez, California
CEC = Clayton Environmental Consultants of Pleasanton, California

ATTACHMENT A

WATER SAMPLE COLLECTION RECORDS

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name A Date 6/19/91 Time of Sampling 16:10

Job Name CHEV. OAK. III Job Number 4-418-01 Initials BS

Sample Point Description NORTH SIDE OF LOT 5 (RJ) (M = Monitoring Well)

Location M

WELL DATA: Depth to Water 15.37 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 20.08 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 4.71 ft. = volume .76 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 2.3 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —

Bailer# and type 1.5" x 2' TEFLON Dedicated YES (Y/N)

Other —

Evacuation Time: Stop 14:27 14:59 16:08

Start 14:23 14:56 16:06

Total Evacation Time 9

Total Evacuated Prior to Sampling 2.3 gal.

Evacuation Rate 0.25 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 19.44 ft. 16:12 time

Evacuated Dry? NO After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number —

Calibration: — 4.0 — 7.0 — 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)

N/A

SAMPLE: Color Clear Odor Moderate

Description of matter in sample: Suspended silt particles

Sampling Method: decanted from dedicated teflon bailer.

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-A	w/cv	40ml	N	Y	HCL	8015/8020	N	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name B Date 6/19/91 Time of Sampling 15:21

Job Name Chevron Oakland III Job Number 4-418-01 Initials BB

Sample Point Description M (M = Monitoring Well)

Location South Corner of lot, adj. to sidewalk on W. MacArthur

WELL DATA: Depth to Water 15.14 ft (static) pumping @ 10:30 Depth to Product — ft.

Product Thickness — Well Depth — ft (spec) Well Depth 34.33 ft (sounded) Well Diameter 4 in

Initial Height of Water in Casing 19.19 ft. = volume 12.5 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 37.5 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —

Bailer# and type 3"x3' PVC Dedicated NO (Y/N) Sheen detected on * purge water, as well as bits of foreign material

Other WA #AV

Evacuation Time: Stop 14:53 15:19 —

Start 14:40 15:08 —

Total Evacation Time 24 min

Total Evacuated Prior to Sampling 37.5 gal.

Evacuation Rate 1.56 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 15.43 ft. 15:22 time

Evacuated Dry? NO After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number —

Calibration: — 4.0 — 7.0 — 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)
			N/A		

SAMPLE: Color Clear Odor Moderate

Description of matter in sample: flaky suspended particles

Sampling Method: decanted from WA Teflon Bailer #L

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-B	W/CV	40ml	No	Yes	HCl	EPA 8015/8020	N	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name B-1 Date 6/19/91 Time of Sampling 1456

Job Name CHEV. OAK. III Job Number 4-418-01 Initials RJ

Sample Point Description SW CORNER IN DRIVEWAY RJ (M = Monitoring Well)

Location M

WELL DATA: Depth to Water 13.56 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 15.2 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 1.64 ft. = volume .27 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated .80 gal.

EVACUATION METHOD: Pump # and type _____ Hose # and type _____

Bailer# and type 1½ x 3' TEFLON #RP Dedicated N (Y/N)

Other _____

Evacuation Time: Stop 1424

Start 1419

Total Evacation Time 5

Total Evacuated Prior to Sampling 1.5 gal.

Evacuation Rate .3 gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling 15.21 ft. _____ time

Evacuated Dry? YES After .5 gal. Time 1424

80% Recovery = _____

% Recovery at Sample Time 15.21 (100%) Time 145

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)

SAMPLE: Color GREY Odor STRONG

Description of matter in sample: FINE BLACK PARTICES

Sampling Method: DECANT FROM TEFLON BAILER

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-B1	w/cv	40 ml	N	Y	HCL	8015/8020	N	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name B-2 Date 6/19/91 Time of Sampling 1555

Job Name CHEV. OAK. III Job Number 4-418-01 Initials RJ

Sample Point Description M (M = Monitoring Well)

Location SE CORNER OF LOT

WELL DATA: Depth to Water 15.83 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 19.0 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 3.17 ft. = volume .52 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 1.6 gal.

EVACUATION METHOD: Pump # and type _____ Hose # and type _____

Bailer# and type 1 1/2" TEFLON Dedicated Y (Y/N)

Other _____

Evacuation Time: Stop 1527 1554 _____

Start 1522 1549 _____

Total Evacation Time 10

Total Evacuated Prior to Sampling 2 gal.

Evacuation Rate .2 gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling 18.30 ft. 1555 time

Evacuated Dry? NO After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)

SAMPLE: Color CLEAR Odor NONE DETECTED

Description of matter in sample: NONE DETECTED

Sampling Method: DECANT FROM DED. BAILER

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-B2	w/cv	40ml	N	Y	HCL	8015/8020	N	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name B-3 Date 6/19/91 Time of Sampling RJ 1618

Job Name CHEV. OAK. III Job Number 4-418-01 Initials RJ

Sample Point Description M (M = Monitoring Well)

Location SE PART OF LOT

WELL DATA: Depth to Water 15.16 ft (static) pumping) Depth to Product — ft.

Product Thickness — Well Depth 18.9 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 3.74 ft. = volume .61 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 1.83 gal.

EVACUATION METHOD: Pump # and type _____ Hose # and type _____

Bailer# and type 1½ X 3' TEFLON #RR Dedicated _____ (Y/N)

Other _____

Evacuation Time: Stop 1450 1618 _____

Start 1445 1616 _____

Total Evacation Time 7

Total Evacuated Prior to Sampling 3 gal.

Evacuation Rate .43 gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling (RJ) 17.92 ft. 1618 time

Evacuated Dry? YES After 1.0 gal. Time 1450

80% Recovery = _____

% Recovery at Sample Time _____ Time (RJ)

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)

SAMPLE: Color (RJ) CLEAR (RJ) Odor MILD (RJ)

Description of matter in sample: ~~FINE BLACK PARTICLES~~ VERY FINE PARTICLES RJ DECANT FROM TEFLON BAILER

Sampling Method: _____

Sample Port: Rate ____ gpm Totalizer _____ gal.

Time

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-B3	w/cv	40ml	N	Y	HCl	8015/8020	N	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name B-4 Date 6/19/91 Time of Sampling 15:58
Job Name CHEV. OAK. III Job Number 4-418-01 Initials BB
Sample Point Description M (M = Monitoring Well)
Location NW CORNER OF LOT

WELL DATA: Depth to Water 16.48 ft (static) pumping) Depth to Product — ft.
Product Thickness — Well Depth 19.37 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in
Initial Height of Water in Casing 2.89 ft. = volume .47 gal.
3 Casing Volumes to be Evacuated. Total to be evacuated 1.41 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 1.5"x2' TEFLON Dedicated YES (Y/N)
Other —

Evacuation Time: Stop 14:19 14:56 15:57
Start 14:15 14:54 15:55
Total Evacation Time 8 min
Total Evacuated Prior to Sampling 1.4 gal.
Evacuation Rate 0.175 gal. per minute

Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling 18.52 ft. 16:00 time
Evacuated Dry? NO After — gal. Time —
80% Recovery = —
% Recovery at Sample Time — Time —

Formulas/Conversions
r = well radius in ft.
h = ht of water col in ft.
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft
V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number —
Calibration: — 4.0 — 7.0 — 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)
			N/A		

SAMPLE: Color Clear Odor Moderate
Description of matter in sample: flaky suspended particles
Sampling Method: decanted from dedicated teflon bailer.
Sample Port: Rate — gpm Totalizer — gal.
Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-B4	w/cv	40 ml	N	Y	HCL	8015/8020	N	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name EA-1 Date 6/19/91 Time of Sampling 1341
Job Name CHEV. OAK. III Job Number 4-418-01 Initials RJ
Sample Point Description M (M = Monitoring Well)
Location IN MEDIAN STRIP ON MCARTHUR

WELL DATA: Depth to Water 15.56 ft (static, pumping) Depth to Product — ft.
Product Thickness — Well Depth 30.2 ft (spec) Well Depth — ft(sounded) Well Diameter 4 in
Initial Height of Water in Casing 14.64 ft. = volume 9.56 gal.
3 Casing Volumes to be Evacuated. Total to be evacuated 28.7 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 3' X 3' PVC Dedicated Y (Y/N)
Other 1½ X 3' TEFLON #MM

Evacuation Time: Stop 1334
Start 1313
Total Evacation Time 21
Total Evacuated Prior to Sampling 30 gal.
Evacuation Rate 2.5 gal. per minute

Depth to Water during Evacuation 15.67 ft. 1342 time RJ
Depth to Water at Sampling ____ ft. ____ time
Evacuated Dry? NO After — gal. Time ____
80% Recovery = —
% Recovery at Sample Time — Time ____

Formulas/Conversions
r = well radius in ft.
h = ht of water col in ft.
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft
V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number ____
Calibration: ____ 4.0 ____ 7.0 ____ 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)

SAMPLE: Color TAN Odor NONE DETECTED
Description of matter in sample: VERY FINE
Sampling Method: DECANT FROM TEFLON BAILER
Sample Port: Rate — gpm Totalizer — gal.
Time

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-EA1	w/cv	40ml	N	Y	HCL	8015/8020	N	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name EA-2 Date 6/19/91 Time of Sampling 13:34
Job Name CHEV. OAK. III Job Number 4-418-01 Initials BB
Sample Point Description M (M = Monitoring Well)
Location MEDIAN STRIP ON BROADWAY

WELL DATA: Depth to Water 17.07 ft (static, pumping) Depth to Product — ft.
Product Thickness — Well Depth 30.1 ft (spec) Well Depth — ft(sounded) Well Diameter 4 in
Initial Height of Water in Casing 13.03 ft. = volume 8.5 gal.
3 Casing Volumes to be Evacuated. Total to be evacuated 25.5 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 3'x3" PVC Dedicated Yes (Y/N)
Other —

Evacuation Time: Stop 13:33
Start 13:15
Total Evacation Time 18 min
Total Evacuated Prior to Sampling 25.5 gal.
Evacuation Rate 1.41 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling 26.83 ft. 13:36 time
Evacuated Dry? NO After — gal. Time —
80% Recovery = —
% Recovery at Sample Time — Time —

Formulas/Conversions
r = well radius in ft.
h = ht of water col in ft.
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft
V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number —
Calibration: — 4.0 — 7.0 — 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)
			N/A		

SAMPLE: Color Light Grey Odor None
Description of matter in sample: Fine suspended silt particles
Sampling Method: sampled from port on side of ded. PVC bailer,
Sample Port: Rate — gpm Totalizer — gal.
Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-EA2	W/CV	40ml	N	Y	HCl	8015/8020	N	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name F Date 6/19/91 Time of Sampling LACK OF WATER - NOT SAMPLED

Job Name CHEV OAK. III Job Number 4-418-01 Initials RJ

Sample Point Description M (M = Monitoring Well)

Location IN STREET NEXT TO MEDIAN STRIP ON MCARTHUR

WELL DATA: Depth to Water 18.95 ft (static) pumping) Depth to Product — ft.

Product Thickness — Well Depth 19.63 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing .68 ft. = volume _____ gal.

3 Casing Volumes to be Evacuated. Total to be evacuated _____ gal.

EVACUATION METHOD: Pump # and type _____ Hose # and type _____

Bailer# and type _____ Dedicated _____(Y/N)

Other _____

Evacuation Time: Stop _____ _____ _____

Start _____ _____ _____

Total Evacation Time _____

Total Evacuated Prior to Sampling _____ gal.

Evacuation Rate _____ gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling _____ ft. _____ time

Evacuated Dry? _____ After _____ gal. Time _____

80% Recovery = _____

% Recovery at Sample Time _____ Time _____

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)

SAMPLE: Color _____ Odor _____

Description of matter in sample: _____

Sampling Method: _____

Sample Port: Rate ____ gpm Totalizer _____ gal.

Time

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
____	TOO LITTLE WATER - NOT SAMPLED								
____									
____									
____									
____									
____									
____									
____									

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

TRAVEL BLANKS

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name TRAVEL BLANKS Date 6.19.91 Time of Sampling 0930

Job Name Chevron Oak. III Job Number 4.418.01 Initials BR

Sample Point Description N/A (M = Monitoring Well)

Location N/A

WELL DATA: Depth to Water _____ ft (static, pumping) Depth to Product _____ ft.

Product Thickness _____ Well Depth ____ ft (spec) Well Depth _____ ft(sounded) Well Diameter ____ in

Initial Height of Water in Casing _____ ft. = volume _____ gal.

_____ Casing Volumes to be Evacuated. Total to be evacuated _____ gal.

EVACUATION METHOD: Pump # and type _____ Hose # and type _____

Bailer# and type _____ Dedicated _____ (Y/N)

Other _____

Evacuation Time: Stop _____ _____ _____

Start _____ _____ _____

Total Evacation Time _____

Total Evacuated Prior to Sampling _____ gal.

Evacuation Rate _____ gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling _____ ft. _____ time

Evacuated Dry? _____ After _____ gal. Time _____

80% Recovery = _____

% Recovery at Sample Time _____ Time _____

N/A

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)

SAMPLE: Color _____ Odor _____

Description of matter in sample: _____

Sampling Method: _____

Sample Port: Rate ____ gpm Totalizer _____ gal.

Time

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-21	w/cu	40ml	No	Yes	HCl	EPA 8015/8020	N	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

BAILER BLANKS

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name BAILER BLANKS Date 6-19-91 Time of Sampling 1415

Job Name Chevron Oak. III Job Number 4-418-01 Initials RJ

Sample Point Description _____ (M = Monitoring Well)

Location _____

WELL DATA: Depth to Water _____ ft (static, pumping) Depth to Product _____ ft.

Product Thickness _____ Well Depth ____ ft (spec) Well Depth _____ ft(sounded) Well Diameter ____ in

Initial Height of Water in Casing _____ ft. = volume _____ gal.

_____ Casing Volumes to be Evacuated. Total to be evacuated _____ gal.

EVACUATION METHOD: Pump # and type _____ Hose # and type _____

Bailer# and type 1½ x 3' TEFLON Dedicated N (Y/N)

Other # RP

Evacuation Time: Stop _____ _____ _____

Start _____ _____ _____

Total Evacation Time _____

Total Evacuated Prior to Sampling _____ gal.

Evacuation Rate _____ gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling _____ ft. _____ time

Evacuated Dry? _____ After _____ gal. Time _____

80% Recovery = _____

% Recovery at Sample Time _____ Time _____

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)

SAMPLE: Color Clear Odor None

Description of matter in sample: None

Sampling Method: Decanted from teflon bailer # RP D.I. Water used - exp. 5-1-93

Sample Port: Rate ___ gpm Totalizer _____ gal.

Time ___

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	061-22	w/w	40ml	No	Yes	HCl	EPA 8015/8020	Hold	SAL

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

ATTACHMENT B

ANALYTIC REPORT AND CHAIN-OF-CUSTODY FORMS

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081 DOHS #1332

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 11996
CLIENT: Weiss Associates
CLIENT JOB NO.: 4-418-01

DATE RECEIVED: 06/20/91
DATE REPORTED: 06/26/91

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
11996- 1	061-A	06/19/91	06/22/91
11996- 2	061-B	06/19/91	06/21/91
11996- 3	061-B1	06/19/91	06/21/91
11996- 4	061-B2	06/19/91	06/21/91
11996- 5	061-B3	06/19/91	06/21/91
11996- 6	061-B4	06/19/91	06/21/91
11996- 7	061-EA1	06/19/91	06/22/91
11996- 8	061-EA2	06/19/91	06/21/91
11996- 9	061-21	06/19/91	06/21/91
11996-10	061-22	06/19/91	/ /

Laboratory Number:	11996 1	11996 2	11996 3	11996 4	11996 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	8900	26000	21000	100000	260000
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	740	7100	910	22000	20000
TOLUENE:	ND<3	370	56	2500	9000
ETHYL BENZENE:	120	430	96	2000	2200
XYLENES:	280	1000	810	11000	16000

Laboratory Number:	11996 6	11996 7	11996 8	11996 9	11996 10
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	16000	ND<50	ND<50	ND<50	NA
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	7800	ND<0.5	ND<0.5	ND<0.5	NA
TOLUENE:	110	ND<0.5	ND<0.5	ND<0.5	NA
ETHYL BENZENE:	550	ND<0.5	ND<0.5	ND<0.5	NA
XYLENES:	340	ND<0.5	ND<0.5	ND<0.5	NA

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081 DOHS #1332

CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 11996

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

OIL AND GREASE ANALYSIS By Standard Methods Method 503E:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA-SW846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/l
Standard Reference: NA

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/l
Standard Reference: 08/24/90

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/l
Standard Reference: 04/09/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	08/24/90	200ng	89/91	0.6	63-111
Benzene	04/09/91	200ng	93/87	6.7	72-119
Toluene	04/09/91	200ng	97/91	6.4	70-116
Ethyl Benzene	04/09/91	200ng	104/97	7.0	73-119
Total Xylene	04/09/91	600ng	101/95	6.5	71-118

Richard Srna, Ph.D.
Laboratory Director

Chain of Custody Record

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

Chevron Facility Number 9-1026
Facility Address 3701 BROADWAY - OAKLAND, CA
Consultant Project Number 4-418-01
Consultant Name WEISS ASSOCIATES
Address 5500 SHELLMOUND, EMERYVILLE, CA 94608
Project Contact (Name) MARIETTE SHIN
(Phone) (415) 547-5420 (Fax Number) (415) 547-5043

Chevron Contact (Name) NANCY VUKELICH
(Phone) (415) 842-9581
Laboratory Name SUPERIOR ANALYTICAL
Laboratory Release Number 4950430
Samples Collected by (Name) BRIAN BUSCH & RON JENSEN
Collection Date 6-19-91
Signature Brian Busch

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)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Chlorinated HC (8010)	Non Chlorinated HC (8020)	Total Lead (AA)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	Remarks
061-A	2	W	G	16:10	HCl	Yes	X							
061-B	2			15:21			X							
061-B1	2			14:56			X							
061-B2	2			15:55			X							
061-B3	2			16:18			X							
061-B4	2			15:58			X							
061-EA1	2			13:41			X							
061-EA2	2			13:34			X							
061-21	2			09:30			X							
061-22	2	↓	↓	14:15	↓	↓								* HOLD - pending analytical results of other samples

Please initial: (a)
Samples Stored in ice. Y
Appropriate containers. Y
Samples preserved. Y
VOA's without headspace. Y
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Brian Busch	WEISS	6-19-91 16:35	Ronald C. Jensen	Weiss Assoc.	6/20/91 0900
Ronald C. Jensen	Weiss assoc.	6/20/91 1015	[signature]	Express It	6/20 1015
[signature]	Express It	6/20 1049	Received For Laboratory By (Signature) [signature]		6/20/91 Date/Time 1049

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

COC-1.DWG/11 90/HCH

→ STORED OVERNIGHT IN A LOCKED, SECURE PLACE & SEALED W/ CUSTODY TAPE

RECEIVED FROM SECURE AREA