Chevron U.S.A. Products Company
2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

October 30, 1992

SCVWD Coordinator
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite #500
Oakland, California 94612

Re: Chevron Service Station #9-0260
21995 Foothill Boulevard
Hayward, California 94541

Dear Coordinator,

Please find attached the 'Third Quarter 1992 Ground Water Monitoring Report' for the above referenced site. Chevron has a total of thirteen ground water monitoring wells here with six wells on-site and seven off-site. Eight of the wells were sampled this event. The depth-to-water ranged from 13.95 to 21.07 feet-below-grade. Ground water was flowing to the southwest with a gradient of 0.025 ft/ft. The levels of dissolved hydrocarbons in the ground water samples were consistent with previous observations at this site.

A downgradient piezometer and ground water monitoring well were installed and sampled in August 1992. We will soon be sending you a subsurface investigation report for these installations. The biological treatment system for ground water remediation continues to operate effectively at this site.

I declare under penalty of perjury that the information contained in the attached report is true and correct, and that any recommended actions are appropriate under the current circumstances, to the best of my knowledge.

If you have any questions, please call me at (510) 842-8896.

Truly yours,

Jeff Zindel
Environmental Engineer

cc: Mr. Rafat Shahid, Alameda County
Mr. Hugh Murphy, Hayward Fire Dept.
File(MAC 9-0260R11)
cc: w/o attachments: Bill Scudder, PDS-Chevron

Weiss Associates *Environmental and Geologic Services*

5500 Shellmound Street, Emeryville, CA 94608-2411 *Fax: 510-547-5043 Phone: **510-547-5420***

September 22, 1992

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

Re: Third Quarter 1992
Ground Water Monitoring Report
Chevron Service Station #9-0260
21995 Foothill Boulevard
Hayward, California
WA Job #4-310-91

Dear Mr. Zindel:

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 August 13, 1992, 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 electronic sounder (Table 1).We also checked the wells for floating hydrocarbons. About 0.3 ft of floating hydrocarbons were measured in monitoring well MW-8. The hydrocarbons were subsequently bailed from the well.

WA collected ground water samples for analysis after purging at least 3 well-casing volumes of ground water from each well or puring the well dry and either allowing it to recover to 80% of its static water level or for two hours. Each sample was decanted from a dedicated or disposable bailer into appropriate clean sample containers and delivered to a California-certified laboratory following proper sample preservation and chain-of-custody

procedures. Purged ground water was removed from the site and transported to the Chevron terminal in Richmond, California for recycling.

MONITORING AND ANALYTIC RESULTS

The top-of-casing elevation, depth to ground water and the ground water elevation for each well are presented in Table 1. Ground water elevation contours and the ground water flow direction are shown on Figure 2. The ground water elevation contours indicate that ground water flows southwestward with a gradient of about 0.025 ft/ft.

Current and historical ground water analytic results are tabulated in Table 2. Total petroleum hydrocarbons as gasoline (TPH-G) and benzene isoconcentration contour maps are included as Figures 3 and 4, respectively. The water sample collection records, and analytic report and chain-of-custody forms are included as Attachments A and B, respectively.

PROPOSED WORK SCHEDULE

The Fourth Quarter 1992 ground water sampling is scheduled for December 3, 1992. We will submit a report presenting the field and analytic data by mid-January 1993.

We appreciate this opportunity to provide hydrogeologic consulting services to Chevron 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 Hydrogeologist

MMS/JWC:fcr

E:\ALL\CHEV\300\310QMSE2.WP

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

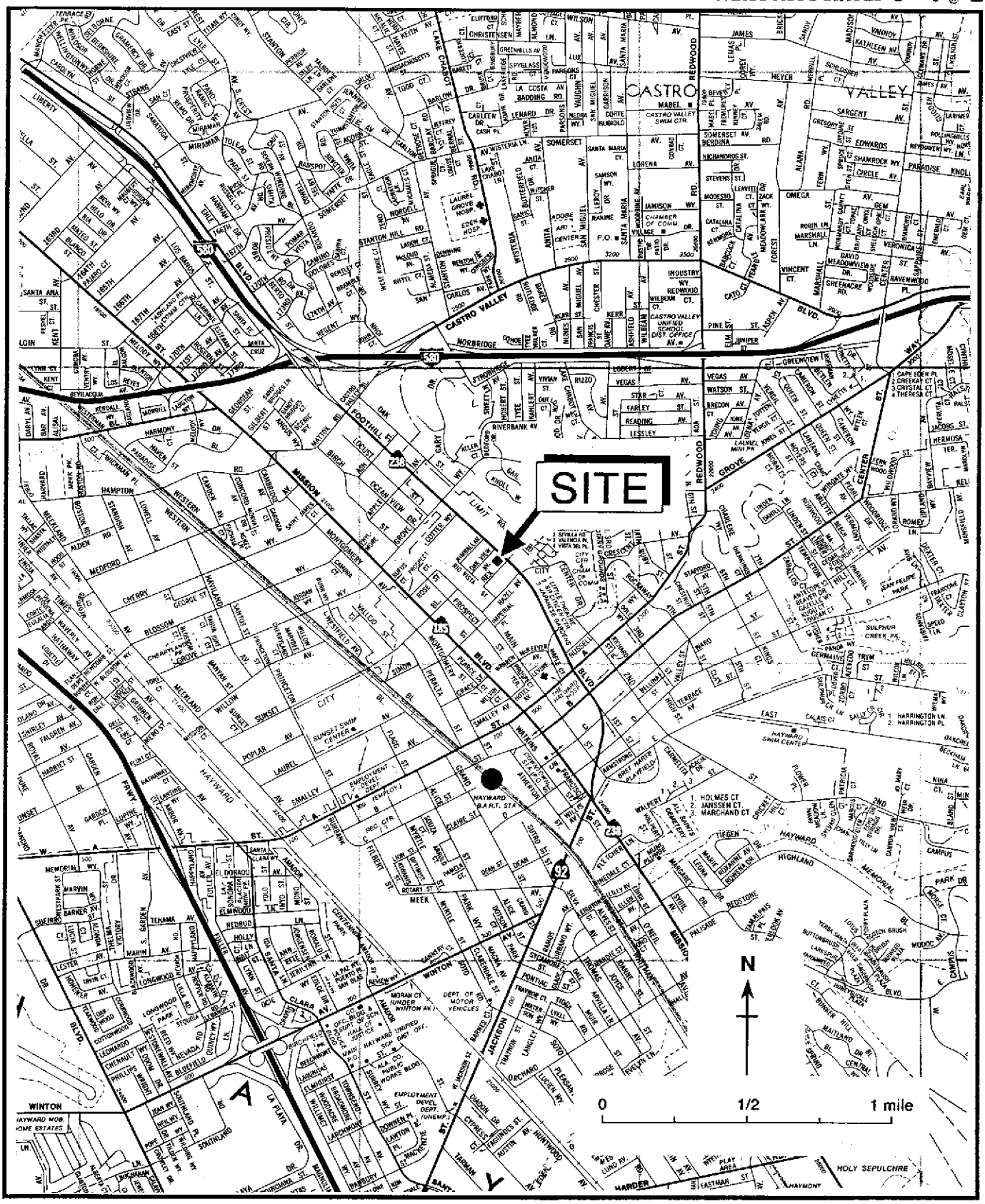


Figure 1. Site Location Map - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

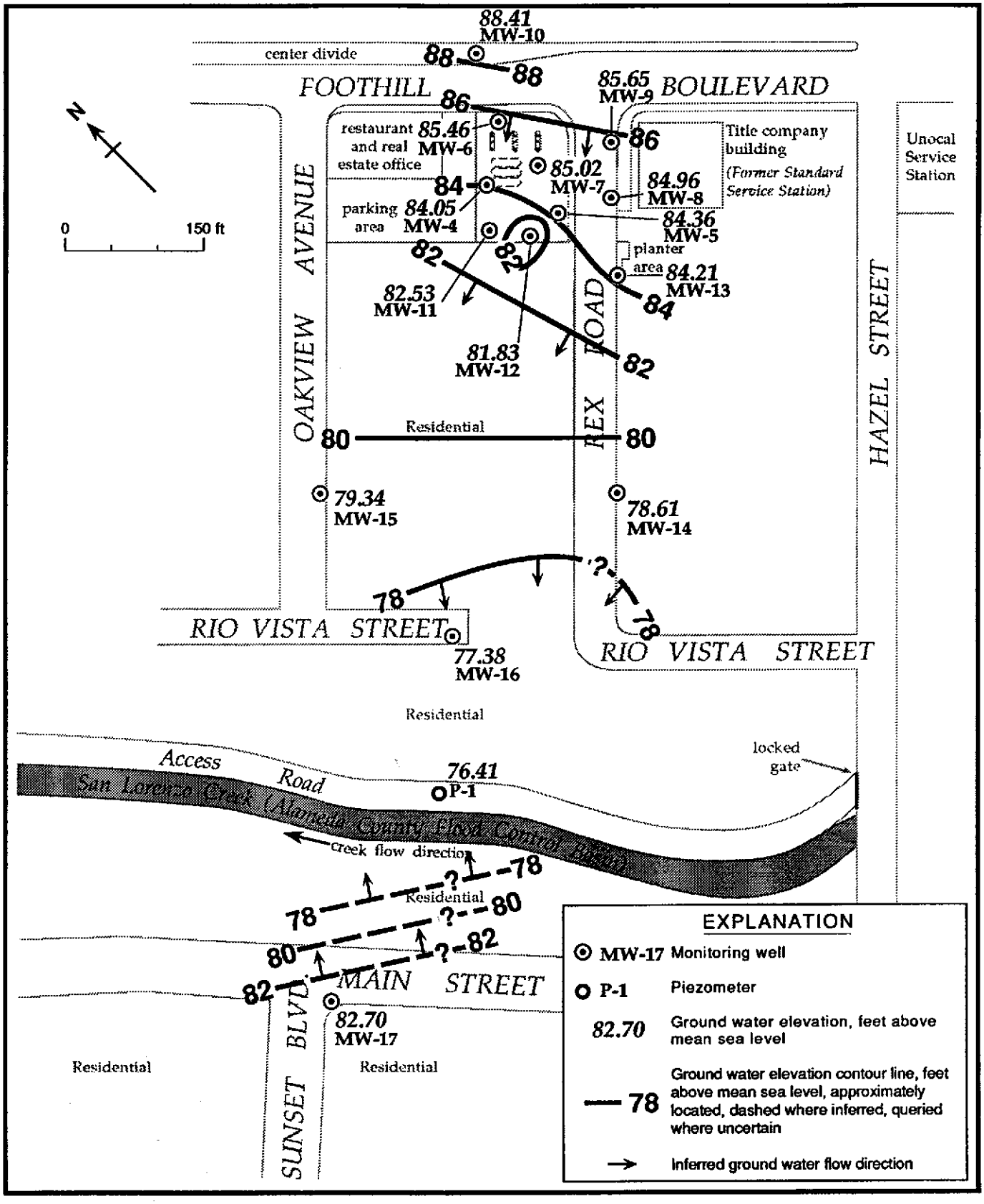


Figure 2. Monitoring Well and Piezometer Locations and Ground Water Elevation Contours - August 13, 1992 - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

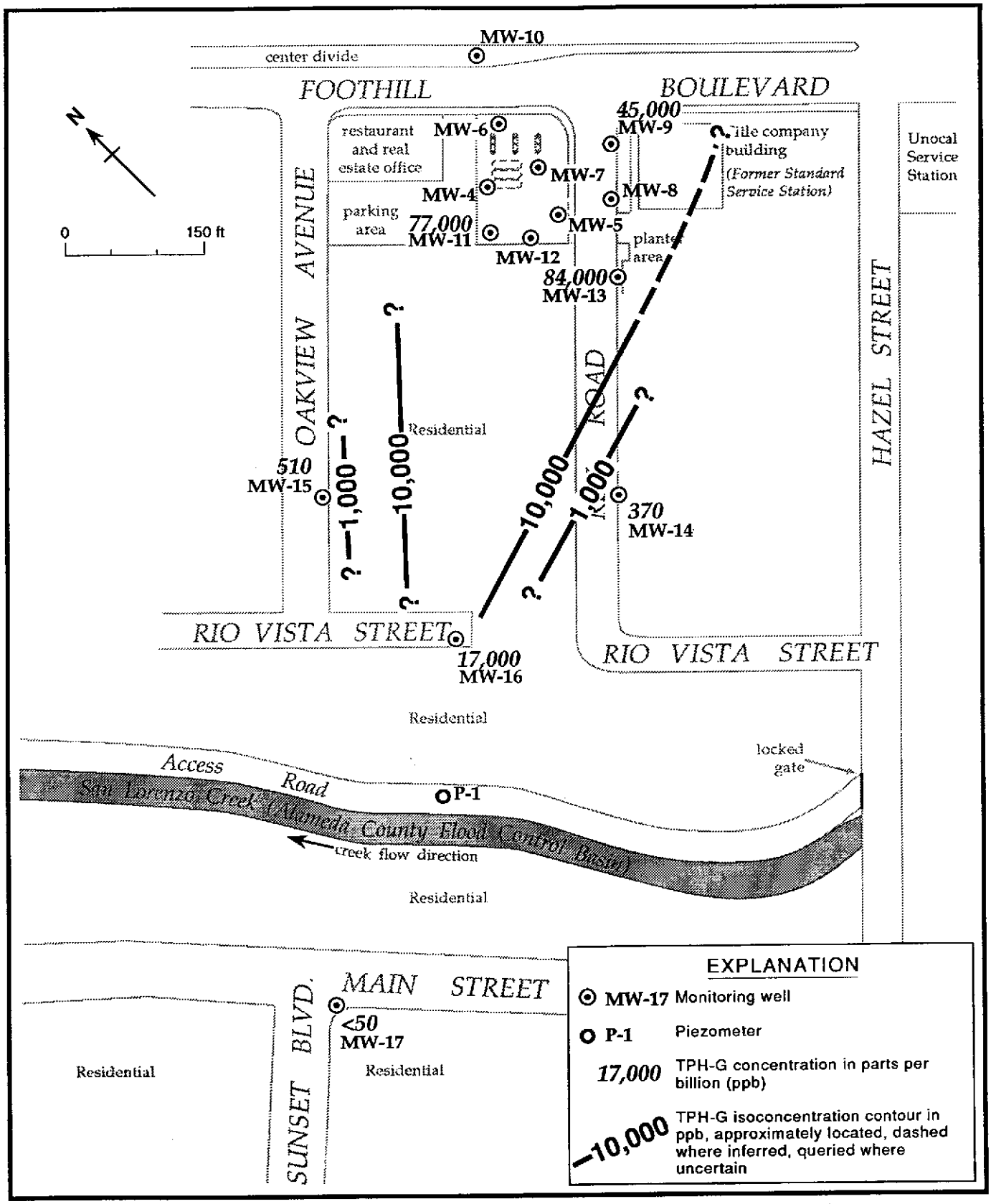


Figure 3. TPH-G Concentrations in Ground Water - August 13, 1992 - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

9/25/92

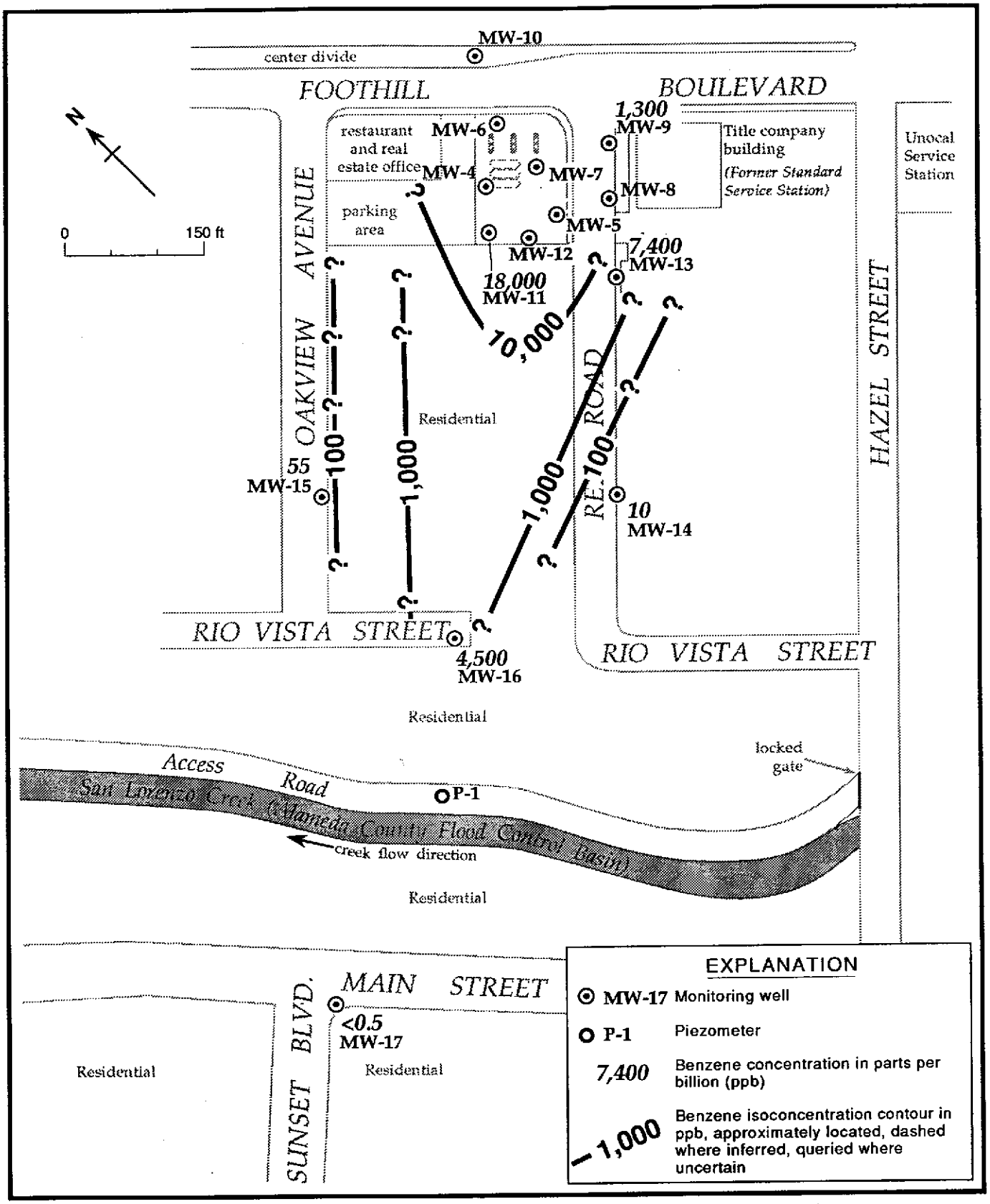


Figure 4. Benzene Concentrations in Ground Water - August 13, 1992 - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

9/25/92

TABLE 1. Ground Water Elevation Data, Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Floating Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[b]
MW-4	06/15/88	100.75	12.92	---	87.83
	09/27/88		14.22	---	86.53
	01/05/89		13.20	---	87.55
	04/06/89		12.32	---	88.43
	06/28/89		14.25	---	86.50
	10/03/89		14.75	---	86.00
	01/04/90		14.75	---	86.00
	04/03/90		13.81	---	86.94
	07/03/90		14.06	---	86.69
	11/06/90		15.66	---	85.09
	01/04/91		15.18	---	85.57
	04/03/91		11.00	---	89.75
	07/02/91		14.25	---	86.50
	10/02/91		16.16	---	84.59
	01/02/92		15.26	---	85.49
	04/07/92		12.38	---	88.37
	08/13/92	**100.73[a]**	**16.68**	---	**84.05**
MW-5	06/15/88	99.97	12.30	---	87.67
	09/27/88		13.25	---	86.72
	01/05/89		12.70	---	87.27
	04/06/89		12.22	---	87.75
	06/28/89		13.81	---	86.16
	10/03/89		14.27	---	85.70
	01/04/90		14.31	---	85.66
	04/03/90		13.50	---	86.47
	07/03/90		13.64	---	86.33
	11/06/90		15.14	---	84.83
	01/04/91		14.90	0.01	85.08
	04/03/91		11.56	---	88.41
	07/02/91		13.89	---	86.08
	10/02/91		15.26	---	84.71
	01/02/92		14.97	---	85.00
	04/07/92		13.44	---	86.53
	08/13/92		**15.61**	---	**84.36**

-- Table 1 continues on next page --

TABLE 1. Ground Water Elevation Data, Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Floating Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[b]
MW-6	06/15/88	101.43	13.51	—	87.92
	09/27/88		14.56	—	86.87
	01/05/89		13.48	—	87.95
	04/06/89		12.60	—	88.83
	06/28/89		14.58	—	86.85
	10/03/89		13.03	—	88.40
	01/04/90		15.08	—	86.35
	04/03/90		14.06	—	87.37
	07/03/90		14.28	—	87.15
	11/06/90		16.10	—	85.33
	01/04/91		15.52	—	85.91
	04/03/91		11.03	—	90.40
	07/02/91		14.44	—	86.99
	10/02/91		16.22	—	85.21
	01/02/92		15.71	—	85.72
	04/07/92		13.47	—	87.96
	08/13/92		15.97	—	85.46
MW-7	06/15/88	100.91	12.57	—	88.34
	09/27/88		13.60	—	87.31
	01/05/89		12.98	—	87.93
	04/06/89		12.34	—	88.57
	06/28/89		14.08	—	86.83
	10/03/89		14.53	—	86.38
	01/04/90		14.49	—	86.42
	04/03/90		13.66	—	87.25
	07/03/90		13.86	—	87.05
	11/06/90		15.58	—	85.33
	01/04/91		15.25	—	85.66
	04/03/91		11.41	—	89.50
	07/02/91		14.18	—	86.73
	10/02/91		15.78	—	85.13
	01/02/92		15.45	—	85.46
	04/07/92		13.48	—	87.43
	08/13/92		15.89	—	85.02

— Table 1 continues on next page —

TABLE 1. Ground Water Elevation Data, Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Floating Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[b]
MW-8	01/05/89	99.67	12.02	—	87.65
	04/06/89		11.78	—	87.89
	06/28/89		13.40	—	86.27
	10/03/89		13.84	0.11	85.92
	01/04/90		13.99	0.10	85.76
	04/03/90		13.07	0.30	86.84
	07/03/90		13.11	0.04	86.59
	11/06/90		14.77	0.15	85.02
	01/04/91		14.59	0.18	85.22
	04/03/91		11.53	0.05	88.18
	07/02/91		13.71	0.48	86.34
	10/02/91		14.84	0.27	85.05
	01/02/92		15.05	0.30	84.86
	04/07/92		12.17	0.29	87.73
	08/13/92		14.96	0.31	84.96
MW-9	01/05/89	101.15	12.63	—	88.52
	04/06/89		12.46	—	88.69
	06/28/89		14.04	—	87.11
	10/03/89		14.61	—	86.54
	01/04/90		14.59	—	86.56
	04/03/90		13.75	—	87.40
	07/03/90		13.84	—	87.31
	11/06/90		15.42	—	85.73
	01/04/91		15.37	—	85.78
	04/03/91		12.27	—	88.88
	07/02/91		14.17	—	86.98
	10/02/91		15.68	—	85.47
	01/02/91		15.65	—	85.50
	04/07/92		13.84	—	87.31
	08/13/92		15.50	—	85.65

— Table 1 continues on next page —

TABLE 1. Ground Water Elevation Data, Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Floating Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[b]
MW-10	01/05/89	102.36	12.64	—	89.72
	04/06/89		11.38	—	90.98
	06/28/89		13.64	—	88.72
	10/03/89		13.85	—	88.51
	01/04/90		13.75	—	88.61
	04/03/90		12.86	—	89.50
	07/03/90		13.43	—	88.93
	11/06/90		14.82	—	87.54
	01/04/91		13.98	—	88.38
	04/03/91		9.79	—	92.57
	07/02/91		12.28	—	90.08
	10/02/91		14.53	—	87.83
	01/02/91		13.60	—	88.76
	04/07/92		11.83	—	90.53
	08/13/92		13.95	—	88.41
MW-11	06/28/89	99.97	14.33	—	85.64
	10/03/89		14.61	—	85.36
	01/04/90		14.55	—	85.42
	04/03/90		13.82	—	86.15
	07/03/90		14.00	—	85.97
	11/06/90		15.56	—	84.41
	01/04/91	c	14.88	0.30	—
	04/03/91		10.75	0.21	—
	07/02/91		13.97	0.02	—
	10/02/91		15.60	—	—
	01/02/92		14.51	—	85.46
	04/07/92		13.13	—	86.84
	08/13/92	99.57[a]	17.04	—	82.53
MW-12	06/28/89	99.64	14.10	—	85.54
	10/03/89		14.30	—	85.34
	01/04/90		14.35	—	85.29
	04/03/90		13.59	—	86.05
	07/03/90		13.77	—	85.87
	11/06/90		15.19	—	84.45
	01/04/91	c	14.52	0.06	—
	04/03/91		10.91	—	—
	07/02/91		13.51	—	—
	10/02/91		14.93	—	—
	01/02/92		14.45	—	85.19
	04/07/92		13.05	—	86.59
	08/13/92	99.22[a]	17.39	—	81.83

— Table 1 continues on next page —

TABLE 1. Ground Water Elevation Data, Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Floating Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[b]
MW-13	06/28/89	98.47	13.22	—	85.25
	10/03/89		13.54	—	84.93
	01/04/90		13.64	—	84.83
	04/03/90		12.95	—	85.52
	07/03/90		13.05	—	85.42
	11/06/90		14.12	—	84.35
	01/04/91		14.05	—	84.42
	04/03/91		11.41	—	87.06
	07/02/91		13.17	—	85.30
	10/02/91		14.24	—	84.23
	01/02/92		14.13	0.03	84.34
	04/07/92		13.06	—	85.41
	08/13/92		14.26	—	84.21
MW-14	08/29/90	99.68	21.39	—	78.29
	11/06/90		21.62	—	78.06
	01/04/91		21.69	—	77.99
	04/03/91		19.53	—	80.15
	07/02/91		20.93	—	78.75
	10/02/91		21.52	—	78.16
	01/02/92		21.43	—	78.25
	04/07/92		21.36	—	78.32
	08/13/92		21.07	—	78.61
MW-15	08/29/90	96.06	16.58	—	79.48
	11/06/90		17.43	—	78.63
	01/04/91		16.37	—	79.69
	04/03/91		12.46	—	83.60
	07/02/91		16.53	—	79.53
	10/02/91		17.33	—	78.73
	01/02/92		16.46	—	79.60
	04/07/92		14.70	—	81.36
	08/13/92		16.72	—	79.34
MW-16	08/29/90	98.15	20.89	—	77.26
	11/06/90		21.27	—	76.88
	01/04/91		21.63	—	76.52
	04/03/91		19.32	—	78.83
	07/02/91		20.68	—	77.47
	10/02/91		21.18	—	76.97
	01/02/92		21.30	—	76.85
	04/07/92		20.19	—	77.96
	08/13/92		20.77	—	77.38

— Table 1 continues on next page —

TABLE 1. Ground Water Elevation Data, Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Floating Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[b]
MW-17	08/13/92	106.00	23.30	---	82.70
P-1	08/13/92	86.43	10.02	---	76.41

a = Top-of-casing resurveyed on August 13, 1992
b = When floating hydrocarbons are present ground water elevation corrected by the formula: Ground water elevation = Top-of-casing elevation - Depth to ground water + (0.8 x hydrocarbon thickness)
c = Top-of-casing cut down; elevation unknown

TABLE 2. Analytic Results for Ground Water - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

Sample ID (Sampling Frequency)	Sample Date	Analytical Lab	Depth to Water (ft)	TPH-G	B	E	T	X	EDC	EDB	VOCs
				<----------parts per billion (µg/L)---------->							
MW-4	02/05/88	B&C		88,000	24,000	1,700	19,000	10,000	---	---	---
(2nd & 4th	06/15/88	B&C	12.92	95,000	45,000	2,100	30,000	17,000	---	---	---
quarters)	09/27/88[a]	CCAS	14.22	500,000	41,000	<5,000	27,000	16,000	<5,000	<5,000	---
	09/27/88[ab]	CCAS	14.22	88,000	1,200	1,600	4,100	12,000	270	230	---
	01/05/89	SPA	13.20	64,000	41,000	2,700	29,000	14,000	---	---	---
	06/28/89	SPA	14.25	110,000	34,000	2,400	24,000	13,000	---	---	---
	10/03/89	SPA	14.75	240,000	36,000	3,200	31,000	19,000	---	---	---
	01/04/90	SPA	14.75	130,000	33,000	2,400	28,000	14,000	---	---	---
	04/03/90	SPA	13.81	110,000	41,000	2,900	32,000	17,000	---	---	---
	07/03/90	SPA	14.06	180,000	32,000	2,600	30,000	15,000	---	---	---
	11/06/90	SPA	15.66	170,000	31,000	2,700	30,000	17,000	---	---	---
	04/03/91	SPA	11.00	130,000	21,000	2,300	24,000	14,000	---	---	---
	10/02/91	SPA	16.16	240,000	27,000	2,600	33,000	16,000	---	---	---
	04/07/92[c]	---	12.38	---	---	---	---	---	---	---	---
MW-5	02/05/88	B&C		80,000	16,000	2,600	15,000	17,000	---	---	---
(2nd & 4th	06/15/88	B&C	12.30	77,000	42,000	2,500	38,000	16,000	---	---	---
quarters)	09/27/88[a]	CCAS	13.25	470,000	39,000	<5,000	32,000	16,000	<5,000	<5,000	---
	09/27/88[ab]	CCAS	13.25	48,000	1,800	1,600	3,500	10,000	410	420	---
	01/05/89	SPA	12.70	82,000	44,000	2,400	37,000	14,000	---	---	---
	06/28/89	SPA	13.81	80,000	36,000	2,400	24,000	13,000	---	---	---
	10/03/89	SPA	14.27	240,000	40,000	2,600	35,000	15,000	---	---	---
	01/04/90	SPA	14.31	130,000	37,000	2,400	31,000	13,000	---	---	---
	04/03/90	SPA	13.50	120,000	41,000	2,500	33,000	14,000	---	---	---
	07/03/90	SPA	13.64	200,000	28,000	1,800	25,000	10,000	---	---	---
	11/06/90	SPA	15.14	370,000	38,000	4,700	36,000	31,000	---	---	---
	04/03/91	SPA	11.56	140,000	36,000	2,700	32,000	17,000	---	---	---
	10/02/91	SPA	15.26	230,000	34,000	2,700	31,000	16,000	---	---	---
	04/07/92	SPA	13.44	220,000	35,000	2,500	30,000	14,000	---	---	---
MW-6	02/05/88	B&C		53,000	5,100	2,100	4,400	14,000	---	---	---
(1st & 3rd	06/15/88	B&C	13.51	33,000	9,200	520	5,500	20,000	---	---	---
quarters)	09/27/88[a]	CCAS	14.56	17,000	2,200	1,700	2,800	5,100	130	<10	---
	01/05/89	SPA	13.48	37,000	5,000	2,200	3,400	10,000	---	---	---
	06/28/89	SPA	14.58	80,000	7,000	2,000	4,100	9,700	---	---	---
	10/03/89	SPA	13.03	110,000	8,500	2,600	5,100	14,000	---	---	---
	01/04/90	SPA	15.08	59,000	5,200	2,000	2,600	11,000	---	---	---
	04/03/90	SPA	14.06	31,000	6,600	2,200	2,600	12,000	---	---	---
	07/03/90	SPA	14.28	66,000	5,800	2,000	2,900	9,800	---	---	---
	01/04/91	SPA	15.52	50,000	5,600	1,800	2,200	9,400	---	---	---
	07/02/91	SPA	14.44	81,000	11,000	2,100	2,700	13,000	---	---	---
	01/02/92	SPA	15.71	67,000	7,500	1,800	1,900	9,500	---	---	---
	08/13/92[d]	---	15.97	---	---	---	---	---	---	---	---

-- Table 2 continues on next page --

TABLE 2. Analytic Results for Ground Water - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California (continued)

Sample ID (Sampling Frequency)	Sample Date	Analytical Lab	Depth to Water (ft)	TPH-G	B	E	T	X	EDC	EDB	VOCs
				<----------parts per billion (µg/L)---------->							
MW-7	02/05/88	B&C		81,000	34,000	2,400	36,000	16,000	---	---	---
(2nd & 4th	06/15/88	B&C	12.57	77,000	40,000	1,400	41,000	24,000	---	---	---
quarters)	09/27/88[a]	CCAS	13.60	30,000	9,700	400	8,900	4,100	2,600	<10	---
	01/05/89	SPA	12.98	96,000	36,000	2,800	38,000	16,000	---	---	---
	06/28/89	SPA	14.08	110,000	31,000	2,600	30,000	16,000	---	---	---
	10/03/89	SPA	14.53	230,000	34,000	2,400	34,000	15,000	---	---	---
	01/04/90	SPA	14.49	150,000	41,000	2,400	40,000	15,000	---	---	---
	04/03/90	SPA	13.66	100,000	31,000	2,100	28,000	16,000	---	---	---
	07/03/90	SPA	13.86	190,000	30,000	1,800	27,000	13,000	---	---	---
	11/06/90	SPA	15.58	160,000	27,000	1,900	25,000	15,000	---	---	---
	04/03/91	SPA	11.41	240,000	40,000	2,400	36,000	18,000	---	---	---
	10/02/91	SPA	15.78	220,000	26,000	2,500	27,000	18,000	---	---	---
	04/07/92	SPA	13.48	260,000	27,000	2,400	26,000	15,000	---	---	---
MW-8	10/27/88[a]	CCAS		190,000	27,000	2,200	43,000	15,000	<500	<500	---
(2nd & 4th	01/05/89	SPA	12.02	87,000	24,000	3,000	39,000	15,000	---	---	---
quarters)	06/28/89	SPA	13.40	120,000	22,000	2,900	35,000	16,000	---	---	---
	10/03/89[e]		13.84	---	---	---	---	---	---	---	---
	01/04/90[e]		13.99	---	---	---	---	---	---	---	---
	04/03/90[e]		13.07	---	---	---	---	---	---	---	---
	07/03/90[e]		13.11	---	---	---	---	---	---	---	---
	11/06/90[e]		14.77	---	---	---	---	---	---	---	---
	04/03/91[e]		11.53	---	---	---	---	---	---	---	---
	10/02/91[e]		14.84	---	---	---	---	---	---	---	---
	04/07/92[e]		12.17	---	---	---	---	---	---	---	---
MW-9	10/27/88[a]	CCAS		50,000	2,000	2,000	9,900	14,000	<500	<500	---
(1st & 3rd	01/05/89	SPA	12.63	55,000	670	3,400	8,900	16,000	---	---	---
quarters)	06/28/90	SPA	14.04	100,000	510	2,600	4,500	13,000	---	---	---
	10/03/89	SPA	14.61	130,000	540	3,200	8,000	17,000	---	---	---
	01/04/90	SPA	14.59	83,000	600	2,600	4,600	14,000	---	---	---
	04/03/90	SPA	13.75	52,000	1,600	3,100	5,400	16,000	---	---	---
	07/03/90	SPA	13.84	100,000	520	3,200	5,400	16,000	---	---	---
	01/04/91	SPA	15.37	59,000	1,100	2,500	5,600	13,000	---	---	---
	07/02/91	SPA	14.17	130,000	1,900	3,600	7,600	20,000	---	---	---
	01/02/92	SPA	15.65	100,000	3,300	2,800	8,200	14,000	---	---	---
	08/13/92	**SPA**	**15.50**	**45,000**	**1,300**	**1,500**	**3,000**	**7,100**	---	---	---
MW-10	10/27/88[a]	CCAS		<500	26	<5	13	<5	<5	<5	---
(1st quarter)	01/05/89	SPA	12.64	<1,000	<0.3	<0.3	<0.3	<0.3	---	---	---
	06/28/89	SPA	13.64	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/03/89	SPA	13.85	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/04/90	SPA	13.75	<50	0.5	<0.5	1.1	1.7	---	---	---

-- Table 2 continues on next page --

TABLE 2. Analytic Results for Ground Water - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California (continued)

Sample ID (Sampling Frequency)	Sample Date	Analytical Lab	Depth to Water (ft)	TPH-G	B	E	T	X	EDC	EDB	VOCs
				<----------parts per billion (µg/L)---------->							
	04/03/90	SPA	12.86	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/04/91	SPA	13.98	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/02/92	SPA	13.60	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW-11 (1st & 3rd quarters)	06/28/89	SPA	14.33	60,000	36,000	2,500	13,000	12,000	---	---	f
	10/03/89	SPA	14.61	14,000	4,200	240	1,400	1,300	---	---	---
	01/04/90	SPA	14.55	82,000	33,000	2,000	11,000	10,000	---	---	---
	04/03/90	SPA	13.82	78,000	35,000	2,300	12,000	12,000	---	---	---
	07/03/90	SPA	14.00	140,000	32,000	2,100	12,000	10,000	---	---	---
	01/04/91e	---	14.88	---	---	---	---	---	---	---	---
	04/03/91e	---	10.75	---	---	---	---	---	---	---	---
	07/02/91	SPA	13.97	340,000	29,000	3,700	14,000	24,000	---	---	---
	01/02/92	SPA	14.51	130,000	27,000	2,200	14,000	12,000	---	---	---
	08/13/92	**SPA**	**17.04**	**77,000**	**18,000**	**1,900**	**14,000**	**10,000**	---	---	---
MW-12 (2nd & 4th quarters)	06/28/89	SPA	14.10	55,000	30,000	2,900	21,000	19,000	---	---	f
	10/03/89	SPA	14.30	170,000	30,000	2,700	23,000	15,000	---	---	---
	01/04/90	SPA	14.35	110,000	24,000	2,300	19,000	12,000	---	---	---
	04/03/90	SPA	13.59	89,000	41,000	3,300	28,000	17,000	---	---	---
	07/03/90	SPA	13.77	170,000	27,000	2,200	20,000	12,000	---	---	---
	11/06/90	SPA	15.19	110,000	28,000	2,400	21,000	14,000	---	---	---
	04/09/91	SPA	10.91	170,000	39,000	2,400	17,000	14,000	---	---	---
	10/02/91	SPA	14.93	170,000	27,000	2,600	15,000	17,000	---	---	---
	04/07/92[c]		13.05	---	---	---	---	---	---	---	---
MW-13 (1st & 3rd quarters)	06/28/89	SPA	13.22	54,000	12,000	1,900	10,000	15,000	---	---	f
	10/03/89	SPA	13.54	120,000	10,000	2,300	10,000	15,000	---	---	---
	01/04/90	SPA	13.64	87,000	6,800	2,000	10,000	12,000	---	---	---
	04/03/90	SPA	12.95	53,000	12,000	2,900	14,000	17,000	---	---	---
	07/03/90	SPA	13.05	90,000	8,400	2,000	11,000	11,000	---	---	---
	01/04/91	SPA	14.05	72,000	5,500	2,300	12,000	12,000	---	---	---
	07/02/91	SPA	13.17	120,000	12,000	2,500	13,000	14,000	---	---	---
	01/02/92[e]	SPA	14.13	---	---	---	---	---	---	---	---
	08/13/92	**SPA**	**14.26**	**84,000**	**7,400**	**2,600**	**11,000**	**13,000**	---	---	---
MW-14 (All quarters)	08/29/90	SPA	21.39	970	4	0.7	2	2	1	---	g
	11/06/90	SPA	21.62	920	10	4	10	9	---	---	---
	01/04/91	SPA	21.69	1,000	<0.5	2.6	4.0	4.2	---	---	---
	04/03/91	SPA	19.53	1,200	380	7	6	18	---	---	---
	07/02/91	SPA	20.93	460	27	1.2	1.0	1.0	---	---	---
	10/02/91	SPA	21.52	480	6.7	1.4	0.8	1.8	---	---	---
	01/02/92	SPA	21.43	1,100	2.4	6.2	1.5	18	---	---	---

-- Table 2 continues on next page --

TABLE 2. Analytic Results for Ground Water - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California (continued)

Sample ID (Sampling Frequency)	Sample Date	Analytical Lab	Depth to Water (ft)	TPH-G	B	E	T	X	EDC	EDB	VOCs
				<----------parts per billion (µg/L)---------->							
	04/07/92	SPA	21.36	290	<0.5	<0.5	1.4	1.2	---	---	---
	08/13/92	**SPA**	**21.07**	**370**	**10**	**<0.5**	**1.2**	**0.9**	---	---	---
MW-15	08/29/90	SPA	16.58	2,000	26	72	2	110	<0.5	---	h
(All quarters)	11/06/90	SPA	17.43	1,300	40	45	5	63	---	---	---
	01/04/91	SPA	16.37	1,700	46	58	2.8	86	---	---	---
	04/03/91	SPA	12.46	2,100	74	44	0.8	85	---	---	---
	07/02/91	SPA	16.53	1,700	39	35	<0.5	46	---	---	---
	10/02/91	SPA	17.33	1,100	50	40	<0.5	33	---	---	---
	01/02/92	SPA	16.46	1,300	51	30	<0.5	30	---	---	---
	04/07/92	SPA	14.70	2,600	98	64	<5	36	---	---	---
	08/13/92	**SPA**	**16.72**	**510**	**55**	**35**	**<0.5**	**2.8**	---	---	---
MW-16	08/29/90	SPA	20.89	11,000	6,000	1,100	51	20	<0.5	---	h
(All quarters)	11/06/90	SPA	21.27	15,000	6,300	1,300	340	540	---	---	---
	01/04/91	SPA	21.63	16,000	6,800	1,300	820	1,500	---	---	---
	04/03/91	SPA	19.32	45,000	7,300	1,800	2,200	4,900	---	---	---
	07/02/91	SPA	20.68	30,000	6,400	1,500	530	1,800	---	---	---
	10/02/91	SPA	21.18	24,000	4,600	1,400	450	1,600	---	---	---
	01/02/92	SPA	21.30	20,000	4,700	1,200	240	1,100	---	---	---
	04/07/92	SPA	20.19	40,000	5,000	1,100	980	2,100	---	---	---
	08/13/92	**SPA**	**20.77**	**17,000**	**4,500**	**860**	**240**	**530**	---	---	---
MW-17 (All quarters)	**08/13/92**	**SPA**	**23.30**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	---	---	---
Bailer Blank	01/05/89	SPA		<1,000	<0.3	<0.3	<0.3	<0.3	---	---	---
Trip Blank	01/05/89	SPA		<1,000	<0.3	<0.3	<0.3	<0.3	---	---	---
	10/03/89	SPA		<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/04/90	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/03/90	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/03/90	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/06/90	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/04/91	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/03/91	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/02/91	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/02/91	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/02/92	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/07/92	SPA		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/13/92	**SPA**		**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	---	---	---
DTSC MCLs				NE	1	680	100[j]	1,750	0.5	0.02	k

-- Table 2 continues on next page --

TABLE 2. Analytic Results for Ground Water - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California (continued)

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
B = Benzene by Method 602 or 8020
E = Ethylbenzene by EPA Method 602 or 8020
T = Toluene by EPA Method 602 or 8020
X = Xylenes by EPA Method 602 or 8020
EDC = 1,2-dichloroethane by EPA Method 524.2/8240
EDB = Ethylene dibromide by EPA Method 524.2/8240
VOCs = Volatile Organic Compounds by EPA Method 8010
--- = Not analyzed
<n = Not detected at laboratory method detection limit of n parts per billion
DTSC MCL = California Department of Toxic Substances Control maximum contaminant level for drinking water
NE = Not established

Analytical Laboratory:

B&C = BC Analytical of Emeryville, California
CCAS = Central Coast Analytical Services of San Luis Obispo, California
SPA = Superior Precision Analytical of San Francisco and Martinez, California

Notes:

a = Samples analyzed by Fuel Fingerprint Analysis - EPA Method 524.2/8240 for total fuel and aromatic volatile hydrocarbons
b = Sample was analyzed a second time after the holding time expired to confirm the high TPH-G concentration reported in the original analysis. Although the samples were preserved with $NaHSO_4$ and refrigerated, the second analysis was conducted 52 days after sample collection.
c = Not sampled due to ground water extraction pump installation
d = Well was dry, not sampled
e = Well not sampled due to the presence of floating hydrocarbons
f = Not detected at detection limits ranging from 500 to 2,000 ppb
g = Not detected at detection limits ranging from 0.5 to 4.0 ppb
h = Chloroform detected limits ranging from 25 to 500 ppb
i = Not detected at detection limits ranging from 25 to 500 ppb
j = DTSC Recommended Action Level for Drinking Water
k = DTSC MCL for chloroform = 100 ppb - MCLs vary for other compounds

ATTACHMENT A

WATER SAMPLE COLLECTION RECORDS

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name MW-6 Date 8-13-92 Time of Sampling Not sampled - not enough water

Job Name CHEV. HAYWARD Job Number 4-310-91 Initials BB

Sample Point Description M (M = Monitoring Well)

Location NE EDGE OF SITE

WELL DATA: Depth to Water 15.97 ft (~~static~~, pumping) Depth to Product — ft.

Product Thickness — Well Depth 16.5 ft (spec) Well Depth — ft(sounded) Well Diameter 4 in

Initial Height of Water in Casing 0.53 ft. = volume 0.34 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 1 gal.

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

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

Other N/A

Evacuation Time: Stop 14:26 @0 — —

Start 14:26 — —

Total Evacation Time 1 min

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 16.32 ft. — time

Evacuated Dry? Yes After .2 gal. Time 14:26

80% Recovery = 16.08

~~% Recovery at Sample Time 16.34~~ Time 16:05

Well did not recover enough to sample

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 — Odor —

Description of matter in sample: —

Sampling Method: N/A

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	082-06	w/cv	40ml	N	Y	HCl	EPA 8015/602	N	SPA

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 MW-9 Date 8-13-92 Time of Sampling 15:55

Job Name CHEV. HAYWARD Job Number 4-310-91 Initials PC

Sample Point Description M (M = Monitoring Well)

Location NE EDGE OF REX RD.

WELL DATA: Depth to Water 15.50 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 19.2 ft (spec) Well Depth ____ ft(sounded) Well Diameter 4 in

Initial Height of Water in Casing 3.7 ft. = volume 2.4 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 7.2 gal.

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

Bailer# and type 3X "PVC Dedicated Y (Y/N)

Other ____

Evacuation Time: Stop 14:37

Start 14:35

Total Evacation Time 2min

Total Evacuated Prior to Sampling 3 gal.

Evacuation Rate 1.5 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 15.65 ft. 15:53 time

Evacuated Dry? Yes After 3 gal. Time 14:37

80% Recovery = 16.24

% Recovery at Sample Time 96 Time 15:53

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 None Odor Moderate

Description of matter in sample: Fine silt

Sampling Method: Sample port on dedicated 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	082-09	W/CV	40ml	N	Y	HCl	EPA 8015/602	N	SPA

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 MW-11 Date 8-13-92 Time of Sampling 1510

Job Name CHEV. HAYWARD Job Number 4-310-91 Initials PC

Sample Point Description (BB-11) EXTRACTION WELL (M = Monitoring Well)

Location W CORNER OF SITE

WELL DATA: Depth to Water 17.04 ft (Static, pumping) BB Depth to Product — ft.

Product Thickness — Well Depth 19.61 ft (spec) Well Depth — ft(sounded) Well Diameter 4 in

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

3 Casing Volumes to be Evacuated. Total to be evacuated 0 gal.

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

Bailer# and type ~~3x~~ ~~PVC~~ Dedicated — (Y/N)

Other SAMPLING PORT (BB)

Evacuation Time: Stop _____

Start _____

Total Evacation Time _____

Total Evacuated Prior to Sampling _____ gal.

Evacuation Rate N/A 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.)
			N/A		

SAMPLE: Color None Odor Slight

Description of matter in sample: None

Sampling Method: sampling port

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	082-11	W/CV	40ml	N	Y	HCl	EPA 8015/602	N	SPA

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 MW-13 Date 8.13.92 Time of Sampling 15:43

Job Name CHEV. HAYWARD Job Number 4-310-91 Initials PC

Sample Point Description M (M = Monitoring Well)

Location PLANTER, SE SIDE OF REX RD.

WELL DATA: Depth to Water 14.26 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 17.77 ft (spec) Well Depth — ft(sounded) Well Diameter 4 in

Initial Height of Water in Casing 3.51 ft. = volume 2.3 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 6.9 gal.

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

Bailer# and type 3x "PVC Dedicated Y (Y/N)

Other

Evacuation Time: Stop 14:46

Start 14:45

Total Evacation Time 1 min

Total Evacuated Prior to Sampling 2.5 gal.

Evacuation Rate 2.5 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 14.97 ft. 15:40 time

Evacuated Dry? Yes After 2.5 gal. Time 14:46

80% Recovery = ~~14.97~~ 14.96

% Recovery at Sample Time ~~82~~ 14.97 Time 15:41

(10)

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 None Odor Moderate

Description of matter in sample: None

Sampling Method: sample port on dedicated 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	082-13	W/CV	40ml	N	Y	HCl	EPA 8015/602	N	SPA

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 MW-14 Date 8-13-92 Time of Sampling 15:38

Job Name CHEV. HAYWARD Job Number 4-310-91 Initials BB

Sample Point Description M (M = Monitoring Well)

Location REX RD., SW OF SITE

WELL DATA: Depth to Water 21.07 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 41.5 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 20.43 ft. = volume 3.33 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 10 gal.

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

Bailer# and type 1.25"x5' PVC Dedicated Y (Y/N)

Other —

Evacuation Time: Stop 15:37

Start 15:23

Total Evacation Time 14 min

Total Evacuated Prior to Sampling 10 gal.

Evacuation Rate 0.71 gal. per minute

Depth to Water during Evacuation — ft. — time

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

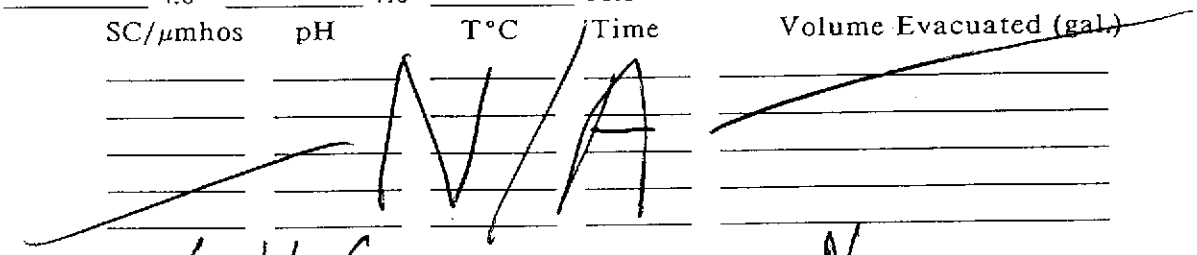
V_6" casing = 1.47 gal/ft

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 Light Grey Odor None

Description of matter in sample: suspended silt particles

Sampling Method: Sampled from port on dedi. PVC blr.

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	082-14	W/CV	40ml	N	Y	HCl	EPA 8015/602	N	SPA

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 MW-15 Date 8-13-92 Time of Sampling 14:38

Job Name CHEV. HAYWARD Job Number 4-310-91 Initials BB

Sample Point Description M (M = Monitoring Well)

Location

WELL DATA: Depth to Water 16.72 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 22 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 5.28 ft. = volume 0.8 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 2.4 gal.

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

Bailer# and type 1.25"x5' PVC Dedicated Y (Y/N)

Other —

Evacuation Time: Stop 14:36

Start 14:32

Total Evacation Time 4 min

Total Evacuated Prior to Sampling 2.5 gal.

Evacuation Rate 0.62 gal. per minute

Depth to Water during Evacuation — ft. — time

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.)
			N/A		

SAMPLE: Color Slightly Cloudy Grey Odor Faint

Description of matter in sample: suspended silt particles

Sampling Method: Sampled from port on 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	082-15	W/CV	40ml	N	Y	HCl	EPA 8015/602	N	SPA

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 MW-16 Date 8-13-92 Time of Sampling 15:01

Job Name CHEV. HAYWARD Job Number 4-310-91 Initials BB

Sample Point Description M (M = Monitoring Well)

Location CUL-DE-SAC, REX RD.

WELL DATA: Depth to Water 20.77 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 40 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 19.23 ft. = volume 3.1 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 9.3 gal.

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

Bailer# and type 1.25"x5' PVC Dedicated Y (Y/N)

Other —

Evacuation Time: Stop 15:00

Start 14:47

Total Evacation Time 13min

Total Evacuated Prior to Sampling 9.5 gal.

Evacuation Rate 0.73 gal. per minute

Depth to Water during Evacuation — ft. — time

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 Slightly Cloudy Grey Odor Moderate

Description of matter in sample: Suspended silt particles

Sampling Method: Sampled from port on 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	082-16	W/CV	40ml	N	Y	HCl	EPA 8015/602	N	SPA

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 MW-17 Date 8-13-92 Time of Sampling 13:52

Job Name CHEV HAYWARD Job Number 4-310-91 Initials PC

Sample Point Description M (M = Monitoring Well)

Location CORNER OF MAIN AND SUNSET

WELL DATA: Depth to Water 27.30 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 38.5 ft (spec) Well Depth 33.39 ft (sounded) Well Diameter 2 in

Initial Height of Water in Casing 10.09 ft. = volume 1.64 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 4.92 gal.

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

Bailer# and type 1⅛" x 5' Dedicated N (Y/N)

Other disposable bailer for sampling

Evacuation Time: Stop 11:55 12:42 13:42

Start 11:25 12:25 13:32

Total Evacation Time 47 min

Total Evacuated Prior to Sampling 24 gal.

Evacuation Rate .51 gal. per minute

* Purging was done with total volumes of 10 casing as well as well development evidence @ same time.

Depth to Water during Evacuation — ft. — time

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

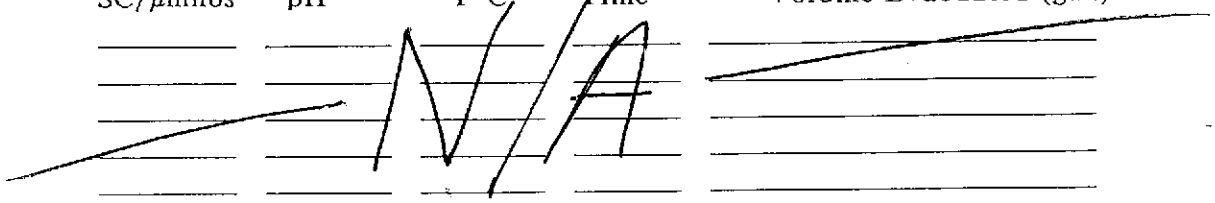
V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number

Calibration: 4.0 7.0 10.0

Measured:	SC/μmhos	pH	T°C	Time

Volume Evacuated (gal.)



SAMPLE: Color None Odor None

Description of matter in sample: Grey silt

Sampling Method: Poured from disposable 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	082-17	W/W	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 TRAVEL BLANKS Date 8-13-92 Time of Sampling 0900

Job Name CHEV. HAYWARD Job Number 4-310-91 Initials BB

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 _____ 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 Clear Odor None

Description of matter in sample: none

Sampling Method: prepared by Clayton Labs.

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	082-EB/LB	W/CV	40ml	N	Y	HCl	EPA 8015/602	N	SPA

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 Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

Weiss Associates
Attn: MARIETTE SHIN

Project 4-310-01
Reported 08/24/92

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
13380- 1	082-09	08/13/92	08/21/92	Water
13380- 2	082-11	08/13/92	08/24/92	Water
13380- 3	082-13	08/13/92	08/24/92	Water
13380- 4	082-14	08/13/92	08/24/92	Water
13380- 5	082-15	08/13/92	08/24/92	Water
13380- 6	082-16	08/13/92	08/21/92	Water
13380- 7	082-17	08/13/92	08/21/92	Water
13380- 8	TB-LB	08/13/92	08/21/92	Water

RESULTS OF ANALYSIS

Laboratory Number:	13380- 1	13380- 2	13380- 3	13380- 4	13380- 5
Gasoline:	45000	77000	84000	370	510
Benzene:	1300	18000	7400	10	55
Toluene:	3000	14000	11000	1.2	ND<0.5
Ethyl Benzene:	1500	1900	2600	ND<0.5	35
Xylenes:	7100	10000	13000	0.9	2.8
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number:	13380- 6	13380- 7	13380- 8
Gasoline:	17000	ND<50	ND<50
Benzene:	4500	ND<0.5	ND<0.5
Toluene:	240	ND<0.5	ND<0.5
Ethyl Benzene:	860	ND<0.5	ND<0.5
Xylenes:	530	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L	ug/L

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 13380

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

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	90/99	10%	76-111
Benzene:	95/98	3%	78-110
Toluene:	91/95	4%	78-111
Ethyl Benzene:	89/93	4%	78-118
Xylenes:	92/95	3%	73-113

Richard Srna, Ph.D.

Laboratory Director

1350

Chain-of-Custody-Record

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

Chevron Facility Number 9-0260
Facility Address 21995 FOOTHILL BLVD HAYWARD
Consultant Project Number 4-310-01
Consultant Name WEISS ASSOCIATES
Address 5500 SHELLMOUND ST EMERYVILLE
Project Contact (Name) MARIETTE SHIN
(Phone) 510-547-5420 (Fax Number) 510-547-5043

Chevron Contact (Name) JEFF ZINDEL
(Phone) 510-842-8896
Laboratory Name SUPERIOR PRECISION ANALYTICAL
Laboratory Release Number 6999320
Samples Collected by (Name) BRIAN BUSCH/Paul CARDOZA
Collection Date 8-13-92
Signature Brian Busch

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)	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
~~082-06~~	~~2~~	~~W~~	~~G~~		~~HCl~~	~~Yes~~	~~X~~	(BB)											
082-09	2	W	G	15:55	HCl	YES	X												DO NOT BILL CHEVRON FOR ANALYSIS OF TB/LB SAMPLES
082-11				15:48			X												
082-13				15:43			X												
082-14				15:38			X												
082-15				14:38			X												
082-16				15:01			X												
082-17				13:52			X												
082-21TB/LB				0900			X												

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Brian Busch	WEISS	8/13/92	Ronald C. Jensen	Weiss Assoc	8/17/92 09100
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Ronald C. Jensen	Weiss Assoc	8/17/92 10:30	[signature] X1677	Exp-it	8-17-92 10:30
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
[signature] X1677	Exp-it	8/17/92 11:33	[signature]		8/17/92 6P

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

STORED OVERNIGHT IN A LOCKED, SECURE PLACE.

COC-1.DWG/11/90/HCH