WEISS ASSOCIATES
Geologic and Environmental Services
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December 6, 1990

Mr. Walter F. Posluszny, Jr.
Chevron USA
P.O. Box 5004
San Ramon, CA 94583-0804

Re: Active Chevron Service Station #9-0260
21995 Foothill Boulevard
Hayward, California
WA Job #4-310-01

Dear Mr. Posluszny:

Weiss Associates (WA) collected ground water samples from seven of sixteen monitoring wells on November 6, 1990, as part of the quarterly ground water monitoring program at Chevron Service Station #9-0260 in Hayward, California (Figure 1). Benzene concentrations in all ground water samples are above the California Department of Health Services (DHS) maximum contaminant level (MCL) for drinking water. Ethylbenzene and xylenes concentrations in samples from monitoring wells MW-4, MW-5, MW-7 and MW-12 (Figure 2), and ethylbenzene in samples from well MW-16 are above DHS MCLs, and toluene concentrations in samples from the five wells referenced above are above the DHS recommended action level for drinking water.

GROUND WATER SAMPLING

Sampling personnel: WA Senior Environmental Technician Robert Hoffman

Monitoring/other wells sampled: MW-4, MW-5, MW-7, MW-12, MW-14, MW-15 and MW-16

- Wells not sampled due to presence of free-floating hydrocarbons: MW-8
- Wells not sampled this quarter according to the approved sampling frequency reduction program: MW-6, MW-9, MW-10, MW-11 and MW-13

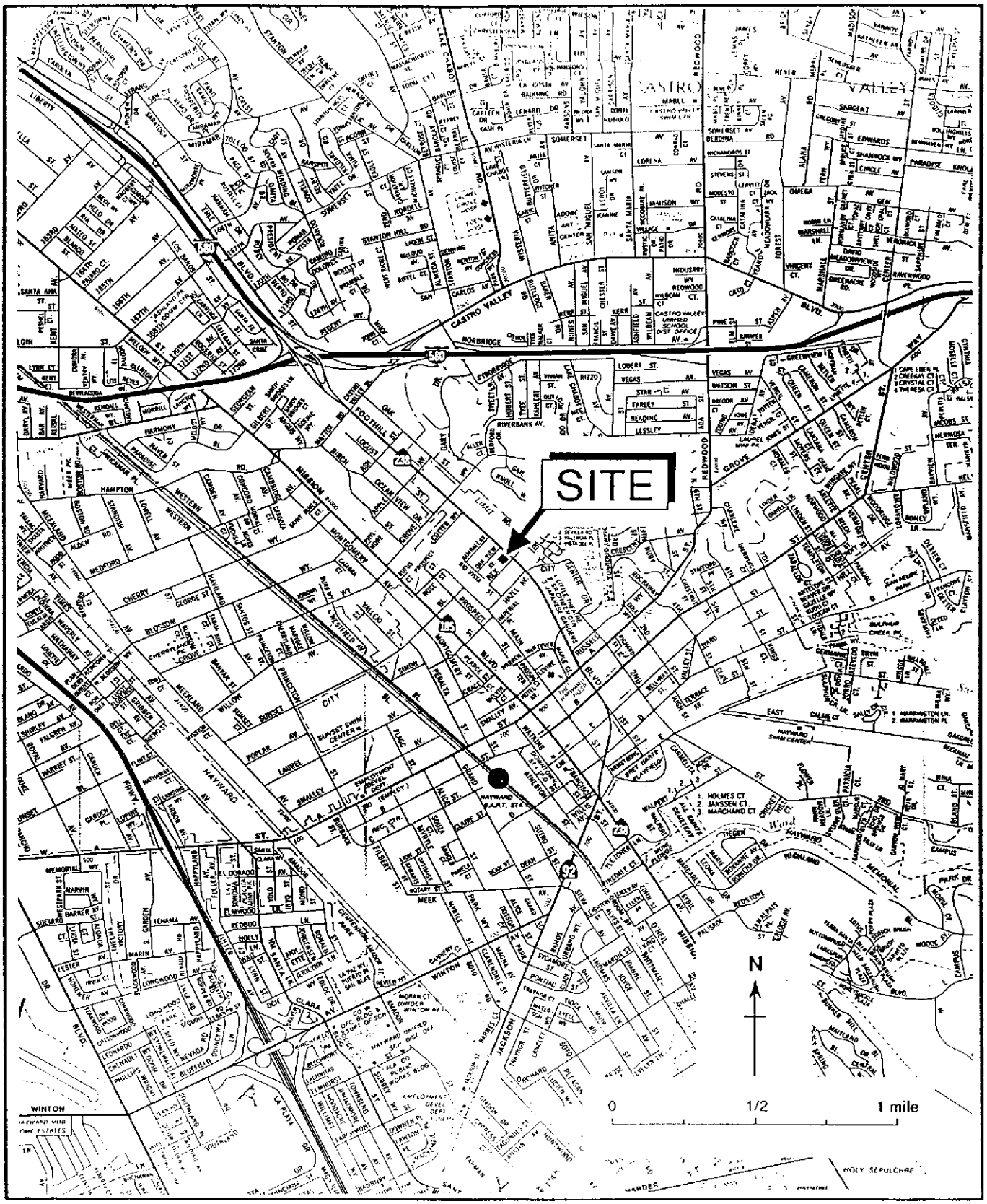

Figure 1. Site Location Map - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

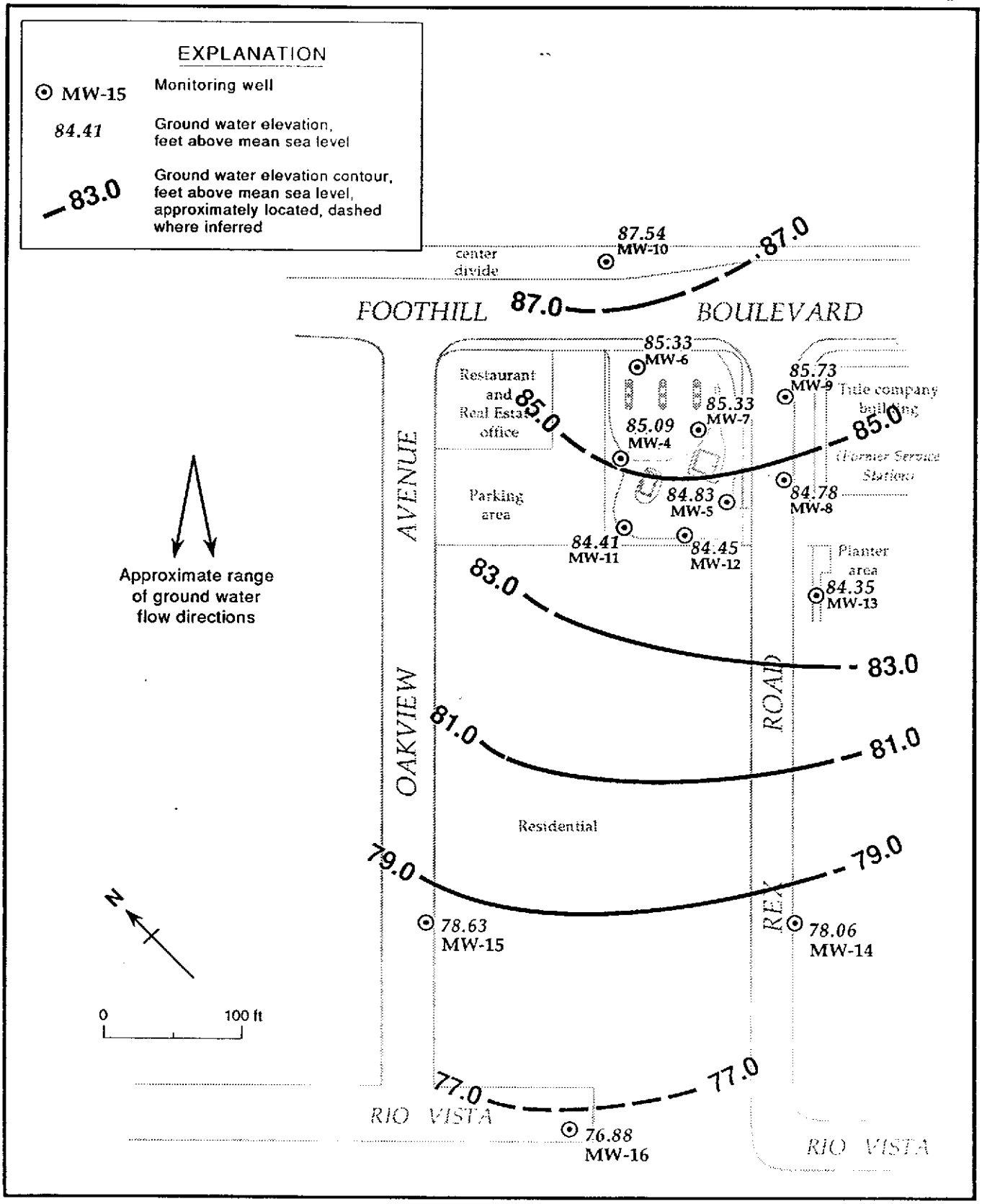

Figure 2. Ground Water Elevation Contours - November 6, 1990 - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

11/29/90

Method of purging wells:

- Dedicated PVC bailers

Volume of water purged prior to sampling:

- Wells were purged of about three well-casing volumes, about 2.2 to 13 gallons each

Method of ground water sample collection:

- Drawn through sampling port on side of dedicated PVC bailer: MW-4, MW-5, MW-7 and MW-12
- Decanted from dedicated PVC bailer: MW-14, MW-15 and MW-16

Method of containing ground water samples:

- 40 ml glass, volatile organic analysis (VOA) vials, preserved with hydrochloric acid and packed in protective foam sleeves

All samples were refrigerated and transported under chain-of-custody to the analytical laboratory.

Water samples transported to:

- Superior Analytical Laboratory, Inc., San Francisco, California and were received on November 7, 1990

Quality assurance/quality control:

- A travel blank was submitted for analysis.
- An equipment blank was not necessary because all bailers are dedicated to specific wells.

Water sample collection records and chain-of-custody forms are included as Attachments A and B, respectively.

GROUND WATER ELEVATIONS

Water levels were measured in all wells on November 6, 1990.

Direction of ground water flow: southwestward

Depth to water measurements and historical ground water elevations are presented in Table 1. Ground water elevation contours are plotted on Figure 2.

- The ground water flow direction is consistent with previous results.
- The ground water elevations in all monitoring wells except for well MW-16 are at historical lows after decreasing an average of 1.4 ft since last quarter.

CHEMICAL ANALYSES

The ground water samples were analyzed for:

- Total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 8015
- Benzene, ethylbenzene, toluene and xylenes (BETX) by EPA Method 8020

The laboratory analyzed the samples on November 13, 1990. The results are presented in Table 2 and the analytic reports are included as Attachment C. Isoconcentration contour maps of TPH-G and benzene in ground water are included as Figures 3 and 4, respectively.

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)	Thickness of Floating Hydrocarbons (ft)	Water Elevation (ft above msl)
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
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
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
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

-- Table 1 continues on next page --

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)	Thickness of Floating Hydrocarbons (ft)	Water Elevation (ft above msl)
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	85.91*
	01/04/90		13.99	0.10	85.77*
	04/03/90		13.07	0.30	86.36*
	07/03/90		13.11	0.04	86.59*
	11/06/90		14.77	0.15	84.78*
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
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
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
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

-- Table 1 continues on next page --

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)	Thickness of Floating Hydrocarbons (ft)	Water Elevation (ft above msl)
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
MW-14	08/29/90	99.68	21.39	---	78.29
	11/06/90		21.62	---	78.06
MW-15	08/29/90	96.06	16.58	---	79.48
	11/06/90		17.43	---	78.63
MW-16	08/29/90	98.15	20.89	---	77.26
	11/06/90		21.27	---	76.88

* = Ground water elevation corrected for free-floating hydrocarbons by the formula: Ground Water Elevation = Top-of-casing elevation - Depth to ground water + (0.8 x hydrocarbon thickness)

TABLE 2. Analytic Results for Ground Water, Chevron Service Station #90260, 21995 Foothill Boulevard, Hayward, California

Sample ID and Sampling Frequency	Sample Date	Analytic Method	Analytical Lab	TPH-G	B	E	T	X	EDC	EDB	VOCs
				<----------parts per billion (µg/L)---------->							
MW-4	02/05/88	8015/602	B&C	88,000	24,000	1,700	19,000	10,000	---	---	---
(Semi-Annual	06/15/88	8015/602	B&C	95,000	45,000	2,100	30,000	17,000	---	---	---
2nd & 4th	09/27/88	524.2/8240	CCAS	500,000	41,000	<5,000	27,000	16,000	<5,000	<5,000	---
quarters)	09/27/88[a]	524.2/8240	CCAS	88,000	1,200	1,600	4,100	12,000	270	230	---
	01/05/89	8015/8020	SAL	64,000	41,000	2,700	29,000	14,000	---	---	---
	06/28/89	8015/8020	SAL	110,000	34,000	2,400	24,000	13,000	---	---	---
	10/03/89	8015/8020	SAL	240,000	36,000	3,200	31,000	19,000	---	---	---
	01/04/90	8015/8020	SAL	130,000	33,000	2,400	28,000	14,000	---	---	---
	04/03/90	8015/8020	SAL	110,000	41,000	2,900	32,000	17,000	---	---	---
	07/03/90	8015/8020	SAL	180,000	32,000	2,600	30,000	15,000	---	---	---
	11/06/90	8015/8020	SAL	170,000	31,000	2,700	30,000	17,000	---	---	---
MW-5	02/05/88	8015/602	B&C	80,000	16,000	2,600	15,000	17,000	---	---	---
(Semi-Annual	06/15/88	8015/602	B&C	77,000	42,000	2,500	38,000	16,000	---	---	---
2nd & 4th	09/27/88	524.2/8240	CCAS	470,000	39,000	<5,000	32,000	16,000	<5,000	<5,000	---
quarters)	09/27/88[a]	524.2/8240	CCAS	48,000	1,800	1,600	3,500	10,000	410	420	---
	01/05/89	8015/8020	SAL	82,000	44,000	2,400	37,000	14,000	---	---	---
	06/28/89	8015/8020	SAL	80,000	36,000	2,400	24,000	13,000	---	---	---
	10/03/89	8015/8020	SAL	240,000	40,000	2,600	35,000	15,000	---	---	---
	01/04/90	8015/8020	SAL	130,000	37,000	2,400	31,000	13,000	---	---	---
	04/03/90	8015/8020	SAL	120,000	41,000	2,500	33,000	14,000	---	---	---
	07/03/90	8015/8020	SAL	200,000	28,000	1,800	25,000	10,000	---	---	---
	11/06/90	8015/8020	SAL	370,000	38,000	4,700	36,000	31,000	---	---	---
MW-6	02/05/88	8015/602	B&C	53,000	5,100	2,100	4,400	14,000	---	---	---
(Semi-Annual	06/15/88	8015/602	B&C	33,000	9,200	520	5,500	20,000	---	---	---
1st & 3rd	09/27/88	524.2/8240	CCAS	17,000	2,200	1,700	2,800	5,100	130	<10	---
quarters)	01/05/89	8015/8020	SAL	37,000	5,000	2,200	3.400	10,000	---	---	---
	06/28/89	8015/8020	SAL	80,000	7,000	2,000	4,100	9,700	---	---	---
	10/03/89	8015/8020	SAL	110,000	8,500	2,600	5,100	14,000	---	---	---
	01/04/90	8015/8020	SAL	59,000	5,200	2,000	2,600	11,000	---	---	---
	04/03/90	8015/8020	SAL	31,000	6,600	2,200	2,600	12,000	---	---	---
	07/03/90	8015/8020	SAL	66,000	5,800	2,000	2,900	9,800	---	---	---
MW-7	02/05/88	8015/602	B&C	81,000	34,000	2,400	36,000	16,000	---	---	---
(Semi-Annual	06/15/88	8015/602	B&C	77,000	40,000	1,400	41,000	24,000	---	---	---
2nd & 4th	09/27/88	524.2/8240	CCAS	30,000	9,700	400	8,900	4,100	2,600	<10	---
quarters)	01/05/89	8015/8020	SAL	96,000	36,000	2,800	38,000	16,000	---	---	---
	06/28/89	8015/8020	SAL	110,000	31,000	2,600	30,000	16,000	---	---	---
	10/03/89	8015/8020	SAL	230,000	34,000	2,400	34,000	15,000	---	---	---
	01/04/90	8015/8020	SAL	150,000	41,000	2,400	40,000	15,000	---	---	---
	04/03/90	8015/8020	SAL	100,000	31,000	2,100	28,000	16,000	---	---	---
	07/03/90	8015/8020	SAL	190,000	30,000	1,800	27,000	13,000	---	---	---
	11/06/90	8015/8020	SAL	160,00	27,000	1,900	25,000	15,000	---	---	---

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TABLE 2. Analytic Results for Ground Water, Chevron Service Station #90260, 21995 Foothill Boulevard, Hayward, California

Sample ID and Sampling Frequency	Sample Date	Analytic Method	Analytical Lab	TPH-G	B	E	T	X	EDC	EDB	VOCs
				<----------parts per billion (µg/L)---------->							
MW-8	10/27/88	524.2/8240	CCAS	190,000	27,000	2,200	43,000	15,000	<500	<500	---
(Semi-Annual	01/05/89	8015/8020	SAL	87,000	24,000	3,000	39,000	15,000	---	---	---
2nd & 4th	06/28/89	8015/8020	SAL	120,000	22,000	2,900	35,000	16,000	---	---	---
quarters)	10/03/89[b]	---	---	---	---	---	---	---	---	---	---
	01/04/89[b]	---	---	---	---	---	---	---	---	---	---
	04/03/90[b]	---	---	---	---	---	---	---	---	---	---
	07/03/90[b]	---	---	---	---	---	---	---	---	---	---
	11/06/90[b]	---	---	---	---	---	---	---	---	---	---
MW-9	10/27/88	524.2/8240	CCAS	50,000	2,000	2,000	9,900	14,000	<500	<500	---
(Semi-Annual	01/05/89	8015/8020	SAL	55,000	670	3,400	8,900	16,000	---	---	---
1st & 3rd	06/28/90	8015/8020	SAL	100,000	510	2,600	4,500	13,000	---	---	---
quarters)	10/03/89	8015/8020	SAL	130,000	540	3,200	8,000	17,000	---	---	---
	01/04/90	8015/8020	SAL	83,000	600	2,600	4,600	14,000	---	---	---
	04/03/90	8015/8020	SAL	52,000	1,600	3,100	5,400	16,000	---	---	---
	07/03/90	8015/8020	SAL	100,000	520	3,200	5,400	16,000	---	---	---
MW-10	10/27/88	524.2/8240	CCAS	<500	26	<5	13	<5	<5	<5	---
(Annual	01/05/89	8015/8020	SAL	<1,000	<0.3	<0.3	<0.3	<0.3	---	---	---
1st quarter)	06/28/89	8015/8020	SAL	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/03/89	8015/8020	SAL	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/04/90	8015/8020	SAL	<50	0.5	<0.5	1.1	1.7	---	---	---
	04/03/90	8015/8020	SAL	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW-11	06/28/89	8015/8240	SAL	60,000	36,000	2,500	13,000	12,000	---	---	ND[c]
(Semi-Annual	10/03/89	8015/8020	SAL	14,000	4,200	240	1,400	1,300	---	---	---
1st & 3rd	01/04/90	8015/8020	SAL	82,000	33,000	2,000	11,000	10,000	---	---	---
quarters)	04/03/90	8015/8020	SAL	78,000	35,000	2,300	12,000	12,000	---	---	---
	07/03/90	8015/8020	SAL	140,000	32,000	2,100	12,000	10,000	---	---	---
MW-12	06/28/89	8015/8240	SAL	55,000	30,000	2,900	21,000	19,000	---	---	ND[c]
(Semi-Annual	10/03/89	8015/8020	SAL	170,000	30,000	2,700	23,000	15,000	---	---	---
2nd & 4th	01/04/90	8015/8020	SAL	110,000	24,000	2,300	19,000	12,000	---	---	---
quarters)	04/03/90	8015/8020	SAL	89,000	41,000	3,300	28,000	17,000	---	---	---
	07/03/90	8015/8020	SAL	170,000	27,000	2,200	20,000	12,000	---	---	---
	11/06/90	8015/8020	SAL	110,000	28,000	2,400	21,000	14,000	---	---	---
MW-13	06/28/89	8015/8240	SAL	54,000	12,000	1,900	10,000	15,000	---	---	ND[c]
(Semi-Annual	10/03/89	8015/8020	SAL	120,000	10,000	2,300	10,000	15,000	---	---	---
1st & 3rd	01/04/90	8015/8020	SAL	87,000	6,800	2,000	10,000	12,000	---	---	---
quarters)	04/03/90	8015/8020	SAL	53,000	12,000	2,900	14,000	17,000	---	---	---
	07/03/90	8015/8020	SAL	90,000	8,400	2,000	11,000	11,000	---	---	---

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TABLE 2. Analytic Results for Ground Water, Chevron Service Station #90260, 21995 Foothill Boulevard, Hayward, California

Sample ID	Sample Date	Analytic Method	Analytical Lab	TPH-G	B	E	T	X	EDC	EDB	VOCs
				<----------parts per billion (µg/L)---------->							
MW-14	08/29/90	8015/8020/8010	SAL	970	4	0.7	2	2	1	---	ND[d]
	11/06/90	8015/8020	SAL	920	10	4	10	9	---	---	---
MW-15	08/29/90	8025/8020/8010	SAL	2,000	26	72	2	110	<0.5	---	0.6[e]
	11/06/90	8015/8020	SAL	1,300	40	45	5	63	---	---	---
MW-16	08/29/90	8015/8020/8010	SAL	11,000	6,000	1,100	51	20	<0.5	---	ND[f]
	11/06/90	8015/8020	SAL	15,000	6,300	1,300	340	540	---	---	---
Bailer Blank	01/05/89	8015/8020	SAL	<1,000	<0.3	<0.3	<0.3	<0.3	---	---	---
Trip Blank	01/05/89	8015/8020	SAL	<1,000	<0.3	<0.3	<0.3	<0.3	---	---	---
	10/03/89	8015/8020	SAL	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/04/89	8015/8020	SAL	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/03/90	8015/8020	SAL	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/03/90	8015/8020	SAL	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/06/90	8015/8020	SAL	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
DHS MCLs	-	-	-	NE	1	680	100[g]	1,750	0.5	0.02	100[h]

Abbreviations:

TPH-G = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
E = Ethylbenzene
T = Toluene
X = Xylenes
EDC = 1,2-dichloroethane
EDB = Ethylene dibromide
VOCs = Volatile Organic Compounds
--- = Not analyzed
DHS MCL = Department of Health Services Maximum Contaminant Level
NE = DHS action level not established

Notes:

[a] = Samples from MW-4 and MW-5 were analyzed a second time after the holding time expired to confirm the anomalously high TPH-G reported in the original analysis. Although the samples were preserved with $NaHSO_4$ and refrigerated, the second analysis was not run until 52 days after sample collection.
[b] = Not sampled due to the presence of floating hydrocarbons in the well.
[c] = Not detected at detection limits ranging from 500 to 2,000 ppb.
[d] = Not detected at detection limits ranging from 0.5 to 4.0 ppb.
[e] = 0.6 ppb of Chloroform was detected. No other VOCs were detected in the sample.
[f] = Not detected at detection limits ranging from 25 to 500 ppb.
[g] = DHS Recommended Action Level for Drinking Water.
[h] = EPA MCL for Chloroform = 100 ppb - MCLs vary for other compounds

Analytical Laboratory:

B&C = Brown and Caldwell Laboratories of Emeryville, California
CCAS = Central Coast Analytical Services of San Luis Obispo, California
SAL = Superior Analytical Laboratory of San Francisco and Martinez, California

Analytic Method:

524.2/8240 = Fuel Fingerprint Analysis - EPA Method 524.2/8240, Total Fuel and Aromatic Volatile Hydrocarbons
602 = EPA Method 602, BETX
8015 = Modified EPA Method 8015, TPH-G
8020 = EPA Method 8020, BETX

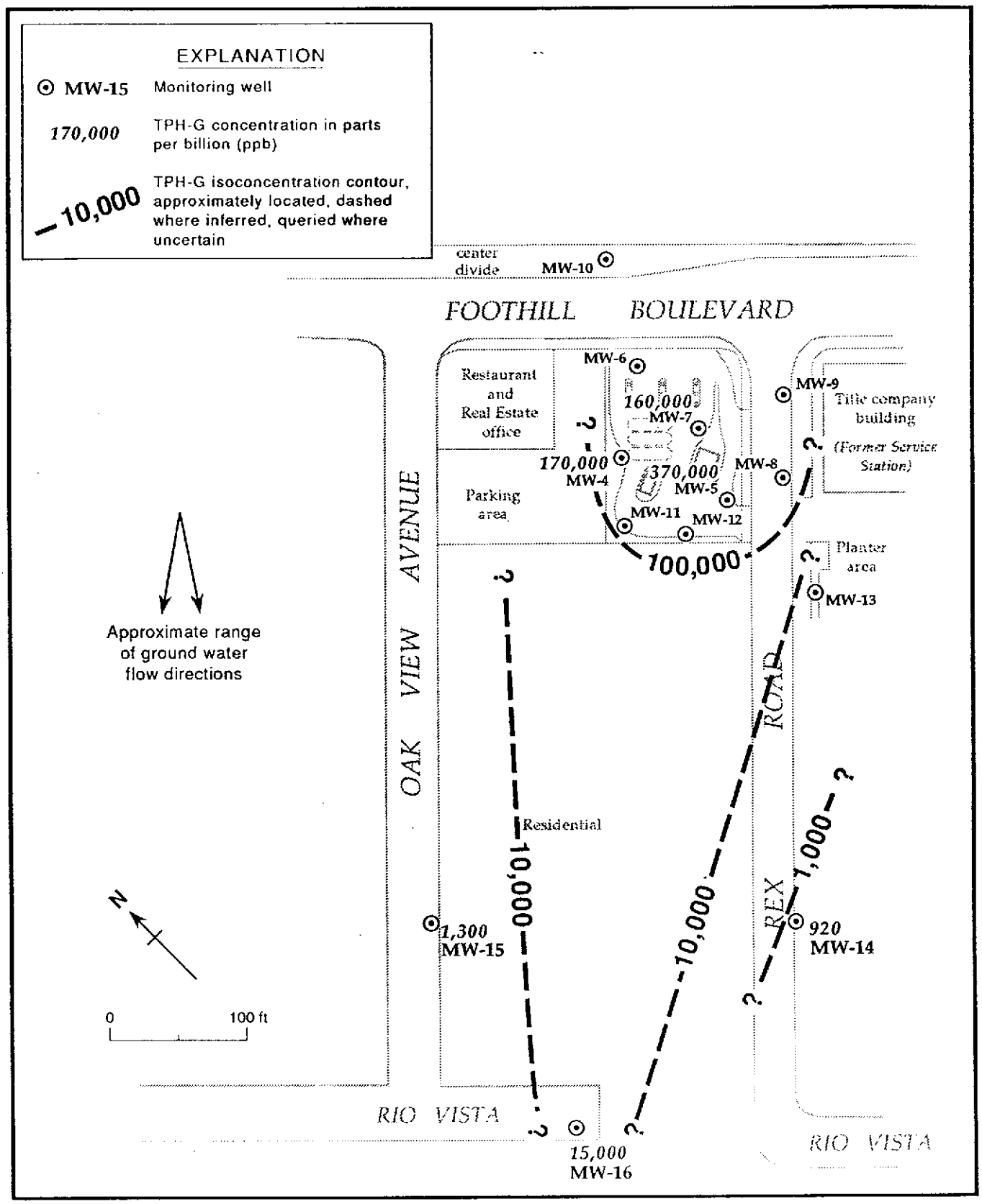


Figure 3. TPH-G Isoconcentration Contours - November 6, 1990 - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

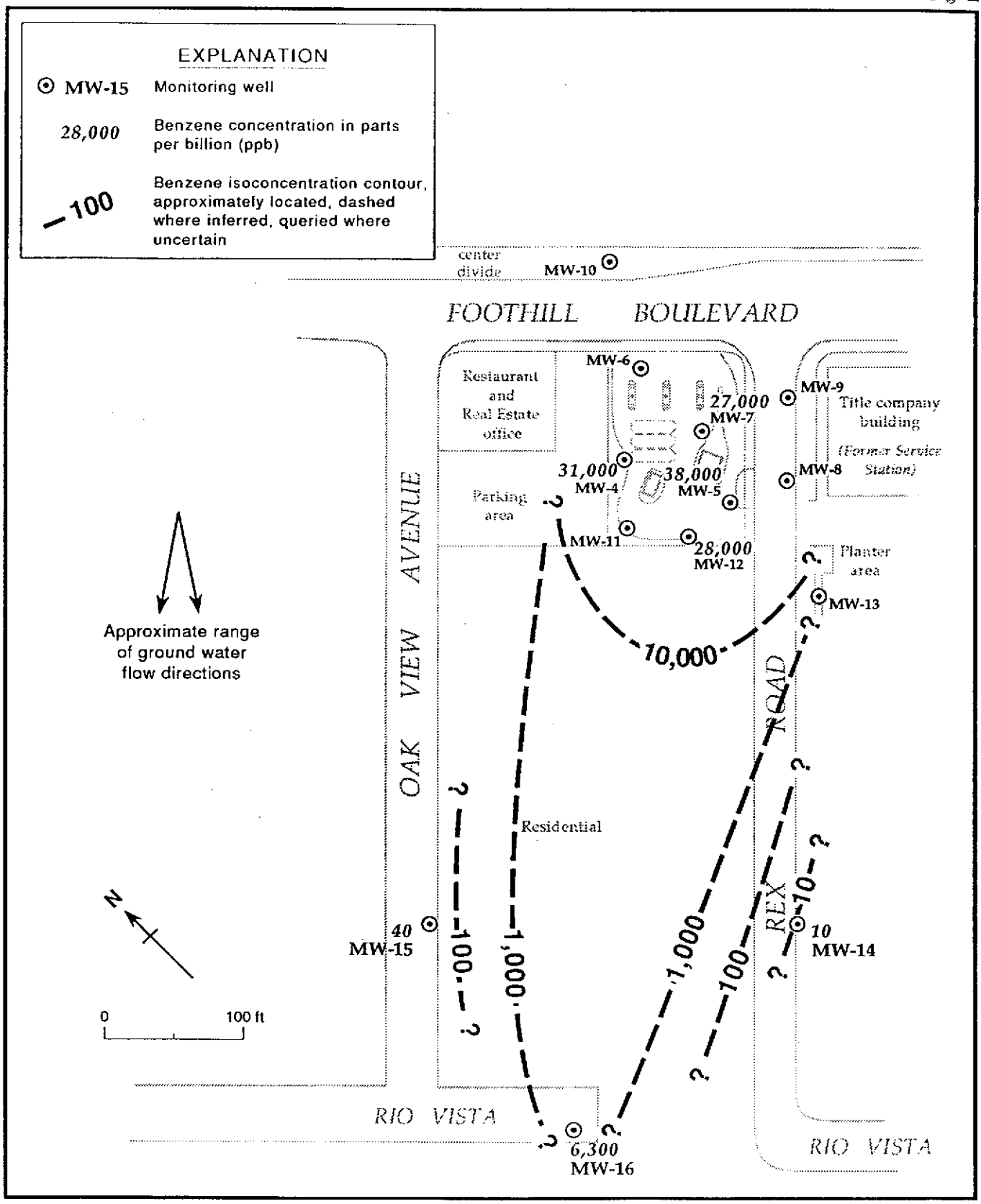


Figure 4. Benzene Isoconcentration Contours - November 6, 1990 - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

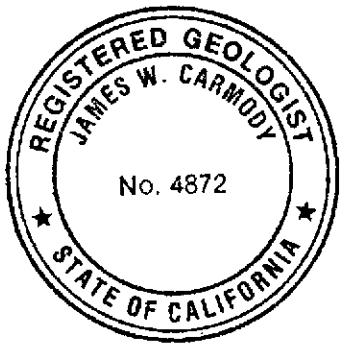
Discussion of ground water analytic results for this quarter:

- Benzene concentrations in all sampled wells are above the DHS MCL for drinking water.

- Ethylbenzene and xylenes in samples from wells MW-4, MW-5, MW-7 and MW-12, and ethylbenzene in samples from well MW-16 are above DHS MCLs, and toluene in samples from the five wells listed above is above the DHS recommended action level for drinking water.

- Hydrocarbon concentrations in samples from well MW-5 have increased since last quarter, and ethylbenze and xylenes concentrations are at a historic high in this well.

We appreciate the opportunity to provide hydrogeologic consulting services to Chevron and trust that this report meets your needs. Please contact Mariette Shin or Jim Carmody if you have any questions.



Sincerely,
Weiss Associates

Mariette M. Shin
Staff Geologist

James W. Carmody, R.G.
Senior Project Hydrogeologist

MMS/JWC:jg

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Attachments:
A - Water Sample Collection Records
B - Chain-of-Custody Form
C - Analytic Reports

ATTACHMENT A

WATER SAMPLE COLLECTION RECORDS

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name MW-4 Date 11/6/90 Time of Sampling 11:26

Job Name CHEV. HAYWARD Job Number 4-310-01 Initials RH

Sample Point Description M (M = Monitoring Well)

Location 21995 FOOTHILL, HAYWARD

WELL DATA: Depth to Water 15.66 ft (static, pumping) Depth to Product N/A ft.

Product Thickness N/A Well Depth 21.6 ft (spec) Well Depth 21.76 ft(sounded) Well Diameter 4 in

Initial Height of Water in Casing 6.1 ft. = volume 3.98 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 11.94 gal.

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

Bailer# and type ded. 3' PVC Dedicated Yes (Y/N)

Other SAMPLE PORT TYPE

Evacuation Time: Stop 08:46 11:25 ______

Start 0839 11:20 ______

Total Evacuation Time ______

Total Evacuated Prior to Sampling 10 + 3 = 13 gal.

Evacuation Rate ______ gal. per minute

Depth to Water during Evacuation N/A ft. — time

Depth to Water at Sampling 17.00 ft. 11:26 time

Evacuated Dry? Yes After 10 gal. Time 08:46

80% Recovery = CONTINUED BAILING TO ACHIEVE REQ. VOL.

% 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 Yes

Description of matter in sample: Very Sm. Amt. Fine SILT

Sampling Method: Used Side Sample 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	119-4	W/V	40	N	Y	HCL	EPA 8015/602	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:

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WATER SAMPLING DATA

WEISS ASSOCIATES

Well Name MW-5 Date 11/6/90 Time of Sampling 12:38

Job Name CHEV. HAYWARD Job Number 4-310-01 Initials RH

Sample Point Description M (M = Monitoring Well)

Location 21495 FOOTHILL HAYWARD

WELL DATA: Depth to Water 15.14 ft (static, pumping) Depth to Product N/A ft.

Product Thickness N/A Well Depth 18.5 ft (spec) Well Depth 18.68 ft (sounded) Well Diameter 4 in

Initial Height of Water in Casing 3.54 ft. = volume 2.31 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 6.93 gal.

EVACUATION METHOD: Pump # and type N/A Hose # and type N/A

Bailer# and type DED. 3" PVC Dedicated Yes (Y/N)

Other SAMPLE PORT TYPE

Evacuation Time: Stop 08:24 11:10 12:38

Start 08:21 11:07 12:34

Total Evacation Time 3 10 4

Total Evacuated Prior to Sampling 2.5 + 2.5 + 2.5 = 7.5 gal

Evacuation Rate .75 gal. per minute

Depth to Water during Evacuation N/A ft. N/A time

Depth to Water at Sampling 17.55 ft. 12:39 time

Evacuated Dry? Yes After 2.5 gal. Time 08:24

80% Recovery = DTW 15.85

% Recovery at Sample Time 32 Time 12:38

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

1/3

CHEMICAL DATA: Meter Brand/Number

Calibration: 4.0 7.0 10.0

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

SAMPLE: Color Lt. Grey Odor Yes (STRONG)

Description of matter in sample: SM AMT. SUSPENDED SILT,

Sampling Method: USED SIDE SAMPLE PORT

Sample Port: Rate N/A 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	119-5	W/V	40	N	Y	HCL	EPA 8015/602	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:

WATER SAMPLING DATA

WEISS ASSOCIATES

Well Name MW-7 Date 11/6/90 Time of Sampling 14:03

Job Name CHEV MKT. Job Number 4-310-01 Initials RH

Sample Point Description M (M = Monitoring Well)

Location 21995 FOOTHILL HAYWARD

WELL DATA: Depth to Water 15.58 ft (static, pumping) Depth to Product N/A ft.

Product Thickness N/A Well Depth 7.6 ft (spec) Well Depth 18.05 ft (sounded) Well Diameter 4 in

Initial Height of Water in Casing 2.47 ft. = volume 1.61 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 4.83 gal.

EVACUATION METHOD: Pump # and type N/A Hose # and type N/A

Bailer# and type ded 3 pvc Dedicated Yes (Y/N)

Other SAMPLE PORT TYPE

Evacuation Time: Stop 09:11 11:17 13:43

Start 09:09 11:15 13:41

Total Evacuation Time 2 2 2

Total Evacuated Prior to Sampling 1.5 + 1.5 + 2.5 = 5 gal.

Evacuation Rate .83 gal. per minute

Depth to Water during Evacuation N/A ft. — time

Depth to Water at Sampling N/A ft. — time

Evacuated Dry? Yes After 5 gal. Time 09:11

80% Recovery = DTW = 16.07

% Recovery at Sample Time N/A Time —

→ PURGED ENTIRE VOLUME

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 Yes

Description of matter in sample: NONE

Sampling Method: Used SIDE SAMPLER PORT

Sample Port: Rate N/A 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	119-7	W/V	40	N	Y	HCL	EPA 8015/602	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:

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FREE PRODUCT
DID NOT SAMPLE

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name MW-8 Date 11/6/90 Time of Sampling _____

Job Name CHEVRON Job Number 4-310-01 Initials RJT

Sample Point Description _____

Location _____ (M = Monitoring Well)

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 _____ 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

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:

WATER SAMPLING DATA

WEISS ASSOCIATES

Well Name MW-12 Date 11/6/90 Time of Sampling 10:28

Job Name CHEV. HAYWARD Job Number 4-310-01 Initials RH

Sample Point Description M (M = Monitoring Well)

Location 21995 FOOTHILL BLVD. HAYWARD

WELL DATA: Depth to Water 15.19 ft (static, pumping) 19.67 RH Depth to Product N/A ft.

Product Thickness N/A Well Depth 16.67 ft (spec) Well Depth 20.32 ft (sounded) Well Diameter ___ in

Initial Height of Water in Casing 4.48 ft. = volume 2.92 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 8.77 gal.

EVACUATION METHOD: Pump # and type N/A Hose # and type N/A

Bailer# and type Ded 3 QUE Dedicated Yes (Y/N)

Other SAMPLE PORT TYPE

Evacuation Time: Stop 10:28

Start 1019

Total Evacation Time 9

Total Evacuated Prior to Sampling 8.9 gal.

Evacuation Rate .98 gal. per minute

Depth to Water during Evacuation N/A ft. ___ time

Depth to Water at Sampling N/A ft. N/A time

Evacuated Dry? NO After ___ gal. Time —

80% Recovery = N/A

% Recovery at Sample Time N/A 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 SLIGHT HAZE Odor MILD

Description of matter in sample: SM. AMT. CREAM COLORED SILT

Sampling Method: USED SIDE SAMPLE 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	119-12	W/V	40	N	Y	HCL	EPA 8015/602	N	SAC

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:

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WATER SAMPLING DATA

WEISS ASSOCIATES

Well Name MW-14 Date 11/6/90 Time of Sampling 12:41p

Job Name CHEV. HAYWARD Job Number 4-310-01 Initials PDC

Sample Point Description M (M = Monitoring Well)

Location 21995 FOOTHILL HAYWARD

WELL DATA: Depth to Water 34.62 ft (static) ~~pumping~~ Depth to Product N/A ft.

Product Thickness N/A Well Depth 44.5 ft (spec) Well Depth 41.49 ft (sounded) Well Diameter 2 in

Initial Height of Water in Casing 19.87 ~~RH~~ ft. = volume 3.23 ~~5.75 RH~~ gal.

5 Casing Volumes to be Evacuated. Total to be evacuated 16.15 ~~28.75 RH~~ gal.

EVACUATION METHOD: Pump # and type N/A Hose # and type N/A

Bailer# and type 1½" x 48" PVC Dedicated Y (Y/N)

Other N/A

Evacuation Time: Stop 12:32

Start 11:47

Total Evacation Time 45 min

Total Evacuated Prior to Sampling 10.0 gal.

Evacuation Rate .22 gal. per minute

Depth to Water during Evacuation N/A ft. N/A time

Depth to Water at Sampling N/A ft. N/A time

Evacuated Dry? No After N/A gal. Time N/A

80% Recovery = N/A

% Recovery at Sample Time N/A 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 Tan Odor None

Description of matter in sample: Suspended Silt

Sampling Method: Decanted out of top of 5' PVC

Sample Port: Rate N/A gpm Totalizer N/A gal.

Time N/A

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	MW-14	W/V	40	N	Y	HCl	EPA 8015/602	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 MW-15 Date 11/6/90 Time of Sampling 14:16

Job Name CHEV HAYWARD Job Number 4-310-01 Initials PPC

Sample Point Description M (M = Monitoring Well)

Location 21995 FOOTHILL HAYWARD

WELL DATA: Depth to Water 17.43 ft (static, pumping) Depth to Product N/A ft.

Product Thickness N/A Well Depth 22 ft (spec) Well Depth 21.95 ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 4.5 ft. = volume .73 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 2.20 gal.

EVACUATION METHOD: Pump # and type N/A Hose # and type N/A

Bailer# and type 1½" x 48" PVC Dedicated Y (Y/N)

Other N/A

Evacuation Time: Stop 13:27 13:50

Start 13:19 13:47

Total Evacation Time 16 min.

Total Evacuated Prior to Sampling 2.2 gal.

Evacuation Rate .14 gal. per minute

Depth to Water during Evacuation N/A ft. N/A time

Depth to Water at Sampling N/A ft. N/A time

Evacuated Dry? Yes After 1.70 gal. Time 15:27

80% Recovery = N/A

% Recovery at Sample Time N/A Time N/A

WAS ABLE TO ACHIEVE REQUIRED VOLUME AFTER 20 min

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.

Description of matter in sample: Suspended silt

Sampling Method: decanting from end of 5' PVC

Sample Port: Rate N/A gpm Totalizer N/A gal.

Time N/A

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	119-15	W/V	40	N	Y	HCL	EPA 8015/602	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:

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WATER SAMPLING DATA

WEISS ASSOCIATES

Well Name MW-16 Date 11/6/90 Time of Sampling 15:03

Job Name Chev. HAYWARD Job Number 4-310-01 Initials RH

Sample Point Description M (M = Monitoring Well)

Location 21495 FOOTHILL HAYWARD

WELL DATA: Depth to Water 21.27 ft (static, pumping) Depth to Product n/a ft.

Product Thickness n/p Well Depth 40 ft (spec) Well Depth 38.11 ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 16.84 ft. = volume 2.74 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 8.23 gal.

EVACUATION METHOD: Pump # and type n/a Hose # and type n/a

Bailer# and type 1½" x 48" PVC Dedicated (Y/N) Y (Y/N)

Other n/a

Evacuation Time: Stop 14:55

Start 14:34

Total Evacation Time 19min

Total Evacuated Prior to Sampling 8.23 gal.

Evacuation Rate 4.3 gal. per minute

Depth to Water during Evacuation n/a ft. n/a time

Depth to Water at Sampling 23.40 ft. 15:03 time

Evacuated Dry? n/p After n/a gal. Time n/a

80% Recovery = n/a

% Recovery at Sample Time n/p 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 Tan Odor strong

Description of matter in sample: silty particles suspended

Sampling Method: Decant out of end of 1½" x 5' PVC

Sample Port: Rate n/a gpm Totalizer n/a gal.

Time n/a

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	119-16	W/V	40	N	Y	HCl	EPA 8015/602	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:

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WATER SAMPLING DATA

WEISS ASSOCIATES

Well Name _____ Date 11/6/90 Time of Sampling 15:05

Job Name _____ Job Number _____ Initials RH

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 NONE Odor NONE

Description of matter in sample: PEA SIZED BUBBLE IN VOA

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	119-21	W/V	40	N	Y	HCL	EPA 8015/602	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:

F:\ALL\ADMIN\FORMS\WATSAMP.WP

S#11170

Chain-of-Custody Record

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

Chevron Facility Number #90260
Laboratory Release Number 2564320
Consultant Project Number 4-310-01
Consultant Name WEISS ASSOC.
Address 5500 Shellmound ST. Emeryville
Fax Number 547-5043
Project Contact (Name) Jim Carmody
(Phone) 415-547-5420

Chevron Contact (Name) WALTER POSLUSZNY
(Phone) 842-9040
Laboratory Name SUPERIOR
Laboratory Contract Number N26CWC0240-9-X
Samples Collected by (Name) ROBERT HOFFMAN / PAUL CARROZA
Collection Date 11/6/90
Signature

Sample Number	Lab Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite	Time	Sample Preservation	Iced	Modified EPA 8015 Total Petro. Hydrocarb. as Gasoline	Modified EPA 8015 Total Petro. Hydrocarb. as Gasoline + Diesel	503 Oil and Grease	Arom. Volatiles - BTXE Soil: 8020/Wtr.: 602	Volatile Organics Soil: 8240/Wtr.: 624	Total Organic Lead DHS-Luft	EDB DHS-AB 1803	EPA 8015/602			Remarks
119-4		2	W	G	11:26	HCL	Yes								✓			
119-5		2			12:38										✓			
119-7		2			14:03										✓			
119-12		2			10:28										✓			
119-14		2			12:47										✓			
119-15		2			14:16										✓			
119-16		2			15:03										✓			
119-21		2			14:55										✓			

Analyses To Be Performed

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
	WEISS ASSOC.	11/7/90 09:32		WEISS ASSOC.	11-7-90 0435	24 Hrs
	WEISS ASSOC	11-7-90 1016		EXPRESS IT	11/7/90 10:12	48 Hrs
	EXPRESS IT	11/7/90 1033			11/7/90 12:25	5 Days
						10 Days

ENTERED IN LOCKED SECURE BUILD. OVERNITE FROM 11/6 & 11/7

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

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 11170
CLIENT: Weiss Associates
CLIENT JOB NO.: 4-310-01

DATE RECEIVED: 11/07/90
DATE REPORTED: 11/14/90

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
11170- 1	119-4	11/06/90	11/13/90
11170- 2	119-5	11/06/90	11/13/90
11170- 3	119-7	11/06/90	11/13/90
11170- 4	119-12	11/06/90	11/13/90
11170- 5	119-14	11/06/90	11/13/90
11170- 6	119-15	11/06/90	11/13/90
11170- 7	119-16	11/06/90	11/13/90
11170- 8	119-21	11/06/90	11/13/90

Laboratory Number:	11170 1	11170 2	11170 3	11170 4	11170 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	170000	370000	160000	110000	920
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	31000	38000	27000	28000	10
TOLUENE:	30000	36000	25000	21000	10
ETHYL BENZENE:	2700	4700	1900	2400	4
XYLENES:	17000	31000	15000	14000	9

Laboratory Number:	11170 6	11170 7	11170 8
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)		
OIL AND GREASE:	NA	NA	NA
TPH/GASOLINE RANGE:	1300	15000	ND<50
TPH/DIESEL RANGE:	NA	NA	NA
BENZENE:	40	6300	ND<0.5
TOLUENE:	5	340	ND<0.5
ETHYL BENZENE:	45	1300	ND<0.5
XYLENES:	63	540	ND<0.5

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

CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
Diesel by Modified EPA SW-846 Method 8015
Gasoline by Purge and Trap: EPA MEthod 8015/5030
ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES
by EPA SW-846 Methods 5030 and 8020

QA/QC INFORMATION
SET: 11170

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:
Duplicate RPD NA
Minimum Detection Limit in Water: 5000ug/L

Modified EPA Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 1000ug/L
Daily Standard run at 200mg/L; %Diff Diesel = NA
MS/MSD Average Recovery = NA: Duplicate RPD = NA

8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L
Daily Standard run at 2mg/L; %Diff Gasoline = <15
MS/MSD Average Recovery = 75%: Duplicate RPD = <13

8020/BTXE
Minimum Quantitation Limit in Water: 0.50ug/L
Daily Standard run at 20ug/L; %Diff = <15%
MS/MSD Average Recovery = 99%: Duplicate RPD = <10

Richard Srna, Ph.D.
Cecilia G. Joaquin (for)
Laboratory Director