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

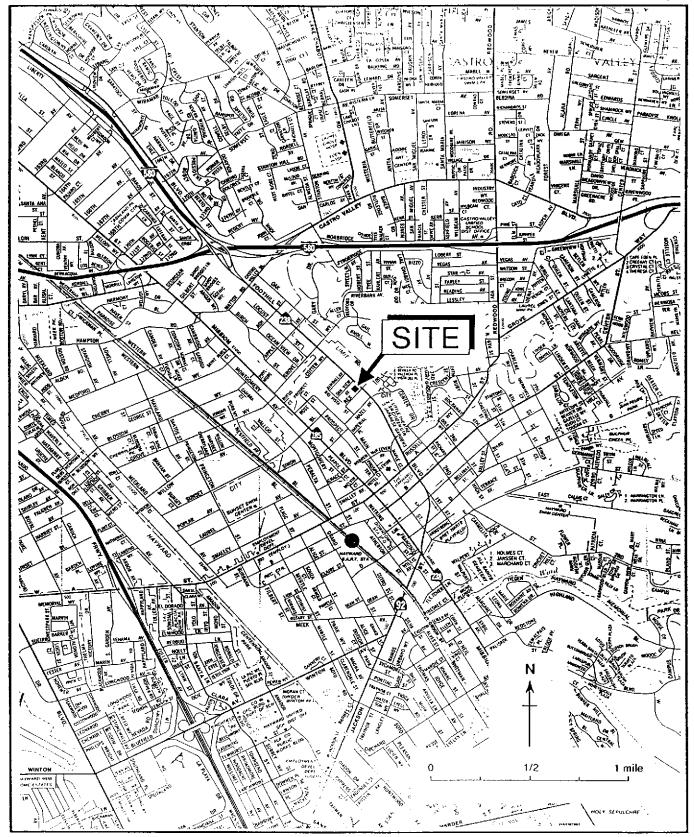


Figure 1. Site Location Map - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

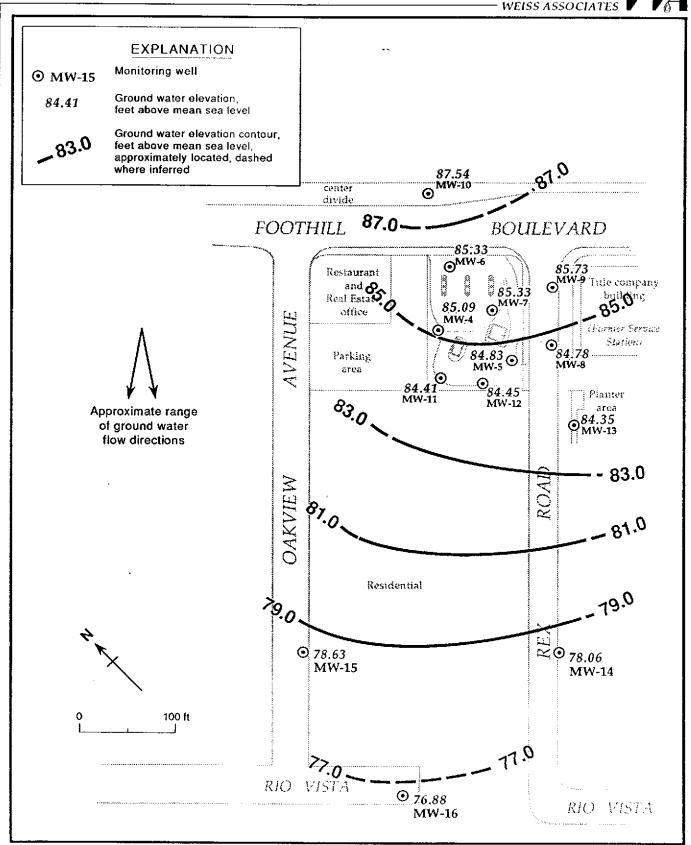


Figure 2. Ground Water Elevation Contours - November 6, 1990 - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California



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.

Walter F. Posluszny, Jr. December 6, 1990

WEISS ASSOCIATES

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.

5

- 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 I. 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
∕ W-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	404	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)

Sample ID and Sampling	Sample	Analytic	Analytical	TPH-G	В	E	T	x	EDC	EDB	VOCs
Frequency	Date	Method	Lab	<		pa	arts per billio	n (μg/L)			>
MW-4	02/05/88	8015/602	8&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					
	09/27/88 ^a	524.2/8240	CCAS		1,200		27,000	16,000	<5,000	<5,000	
quarters)		8015/8020		88,000		1,600	4,100	12,000	270	230	***
	01/05/89		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	•••		*
M₩-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	
4-01 1010,	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					
	07/03/90	8015/8020	SAL	200,000		1,800	33,000	14,000		•••	
	11/06/90	8015/8020			28,000		25,000	10,000	•••		
	11/00/90	8013/8020	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	130		
444.0,	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			

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



⁻⁻Table 2 continues on next page--

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

Sample 10 and Sampling Frequency	Sample Date	Analytic Method	Analytical Lab	TPH-G <	В	E	† orts per billio	X n (ua/l)	ÉDC	EDB	V0Cs
₩-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			
nd & 4th	06/28/89	8015/8020	SAL	120,000	22,000	2,900	35,000	16,000			
uarters)	10/03/89b					•••					
	01/04/89 ^b	***					•••				
	04/03/90b			•••						***	
	07/03/90 ^b					•••					
	11/06/90 ^b								***		
4-9	10/27/88	524.2/8240	CCAS	50,000	2,000	2,000	9,900	14,000	<500	<500	
Gemi-Annual	01/05/89	8015/8020	SAL	55,000	670	3,400	8,900	16,000			
st & 3rd	06/28/90	8015/8020	SAL	100,000	510	2,600	4,500	13,000			
uarters)	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			
J- 10	10/27/88	524.2/8240	CCAS	<500	26	< 5	13	< 5	< 5	< 5	
innua l	01/05/89	8015/8020	SAL	<1,000	<0.3	<0.3	<0.3	<0.3			
t 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			•••
/- 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			
t & 3rd	01/04/90	8015/8020	SAL	82,000	33,000	2,000	11,000	10,000			
arters)	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	•••		
≀-12	06/28/89	8015/8240	SAL	55,000	30.000	2,900	21,000	19,000	***		ND C
emi-Annual	10/03/89	8015/8020	SAL	170,000	30,000	2,700	23,000	15,000			
nd & 4th	01/04/90	8015/8020	SAL	110,000	24,000	2,300	19,000	12,000			
arters)	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			•••
<i>t</i> - 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			NV
st & 3rd	01/04/90	8015/8020	SAL	87,000	6,800	2,000	10,000	12,000			•••
uarters)	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			

⁻⁻ Table 2 continues on next page --

LE 2. Anal		s for Ground Wate	Analytical	TPH-G	В	E part	s per billion (رg/L)			NDd
ample D	Sample Date	Method	Lab	<		0.7	2 10	2 9	1		ND -
1W-14	08/29/90	8015/8020/8010	SAL SAL	970 920	4 10	4	10				0.6 ^e
(Wir 14	11/06/90	8015/8020		2,000	26	72 45	2 5	110 63	<0.5 		
IW-15	08/29/90 11/06/90	8025/8020/8010 8015/8020	SAL SAL	1,300	40		51	20	<0.5		ND f
MW-16	08/29/90	8015/8020/8010	SAL SAL	11,000 15,000	6,000 6,300	1,100 1,300	340	540		• • •	
1W-10	11/06/90	8015/8020	SAL	,		<0.3	<0.3	<0.3	• • •		
ailer	01/05/89	8015/8020	SAL	<1,000	<0.3		<0.3	<0.3	•		
(ank	01/05/89	8015/8020	SAL	<1,000 <500	<0.3 <0.5	<0.3 <0.5	<0.5 <0.5	<0.5 <0.5	•••		
rip Blank	10/03/89 01/04/89	8015/8020 8015/8020	SAL SAL	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5			
	04/03/90	8015/8020 8015/8020	SAL SAL	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5	<0.5			100
	07/03/90 11/06/90	8015/8020	SAL	NE	4	680	1009	1,750	0.5	0.02	

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

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, and refrigerated, the second analysis was not run until 52 days after sample
- 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
- 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

- 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

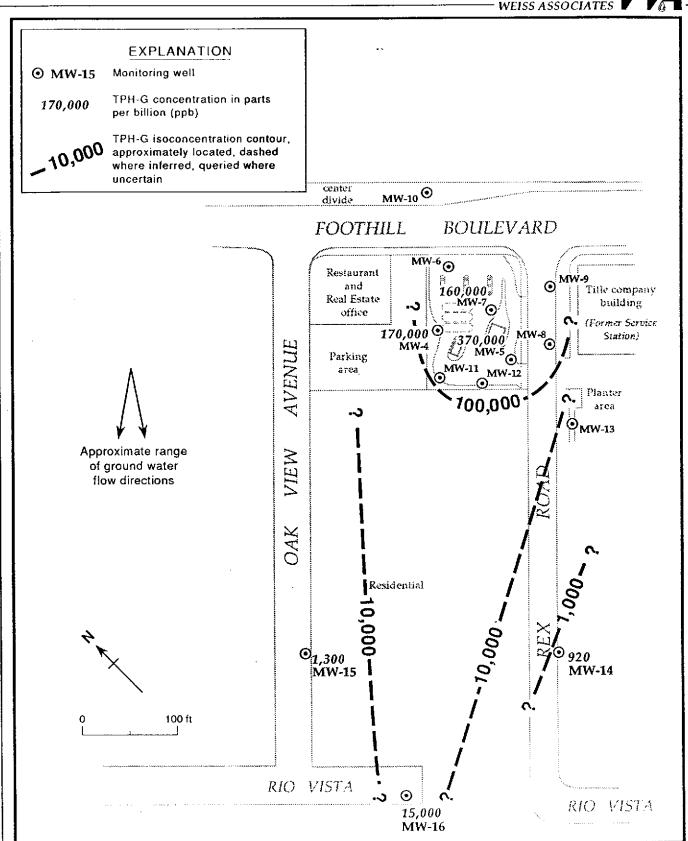


Figure 3. TPH-G Isoconcentration Contours - November 6, 1990 - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California

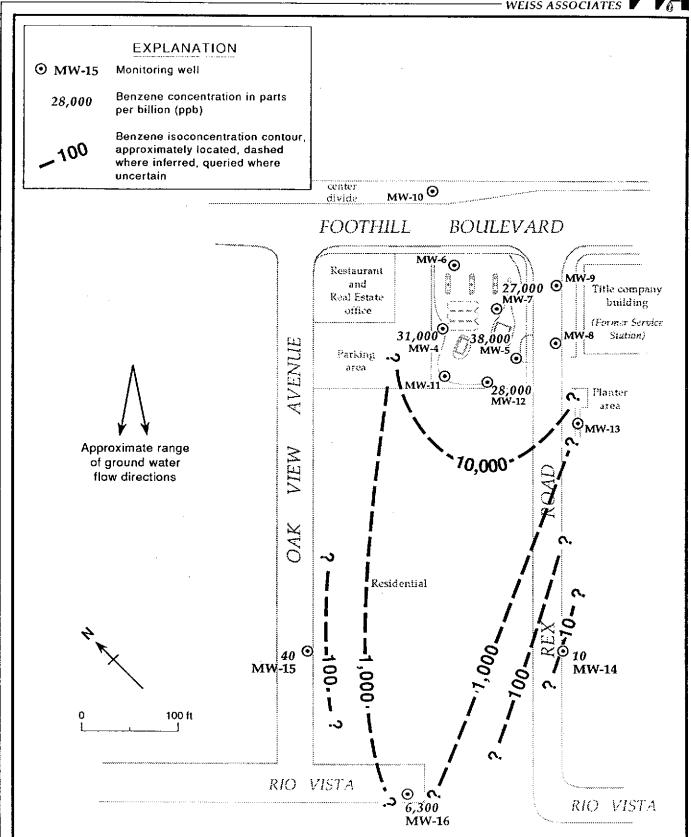


Figure 4. Benzene Isoconcentration Contours - November 6, 1990 - Chevron Service Station #9-0260, 21995 Foothill Boulevard, Hayward, California



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.

No. 4872

Sincerely,

Weiss Associates

Mariette M. Shin Staff Geologist

James W. Carmody, R.G

Senior Project Hydrogeologist

MMS/JWC:jg

E:\ALL\CHEV\300\310QMDE0.WP

Attachments:

A - Water Sample Collection Records

B - Chain-of-Custody Form

C - Analytic Reports

ATTACHMENT A

WATER SAMPLE COLLECTION RECORDS

WATER SAMPLE	NG DATA	. 1. i		WC12	2 V22OCIVIE	s v v
Well Name Mu	1-4	Date 11/6/90	Tim	c of Sampling	11:26	
Job Name CHEV	HHYW/ho	Job Number	27-310 -0	D / Initials	11.28	
Sample Point Des	cription _ M					
Location <u>2199</u>	15 FOOTH	ic HAY	AND	(IV	1 = Monitor	ing Well
WELL DATA: I	Donth to Water /4	Jola Calaria		Depth to F	Produce Al	Ι.Δ
Product Thickness	s N/12 Well D	epth 21.6 ft (spe	c) Well Depth	Depth to F 21.76ft(sounded) W	All Diamer	I fe
	Initial Height o	f Water in Casin	g 6,1	ft. = volume	3.99	• • •
	Casir	g Volumes to be	Evacuated.	Total to be evacu		gal.
EVACUATION M	<u>(ETHOD:</u>	Pump # and i	type .	Hose # and typ		<u>-</u> gal
	Bailer# and typ	c <u>ded. 3' Due</u> -	Dedicated	(Y/N)	· ——	
 .	Other	SAMOU N	not Type	-	••	
Evacuation Time:		1:25			•	
		1.20_		Formulas/C		
	Total Evacation	Time	•	r = well rad		
	Total Evacuated	Prior to Sampli	ng 10 + 3 E	/ ~~ · ~	ater col in ft.	
	Evacuation Pass					
Depth to Water du	ring Evacuation	N/A fr -			- RL LL	
Depth to water at	Sampling $/ \neq .0$	D ft 11:	2 Ca +ima	- •	= 0.163 gal/ft	
Evacuated Dry? 4	(05 After //)	col Time	120111	. 2		
80% Recovery = _	CONTINUED E	ALLING TO W	ACHIEVE RE	V_3^* casing = V_0^* V_0^* casing =	- 0.6531/e	\$
% Recovery at San	aple Time	Time			c 0.003 gal/(c c = 0.826 gal/(4
O				V ₆ casing =		•
CHEMICAL DATA	1: Meter Brand/	Number		V8 casing =		
Calibration:	4.0 /	7.0 <u></u>	10.0 /		Z.OI BAI/IL	
Measured:	SC/µm/los	pH /T°C	Time	Volume Evacuate	ed (mall)	
		/		June Zvacaa,	cu (gai.)	
				7		
	/		7 7			
	/		— . –			
SAMPLE C.1.				1.		
SAMPLE: Color Description of mat	ter is complete	DNE	0	dorYes		
Sampling Method:	1150a <1	00 (4.00	UCry	Sun. Ami. Fi	Ne SIC	T
Sample Port: Rate	gpm Totali	zer <u>SAMP</u> le	72.01			
Time			gal.			
# of Sample	Cont. West	2		· · · · · · · · · · · · · · · · · · ·		
Cont. ID	Cont. Vol ² Type ¹	Fil ³ Ref ⁴	Preservative	Analytic	Turn ⁵	LAB
2 119-4	T_{ℓ}		(specify)	Method		
2 119-9	<u> W/V 40</u>	_ N Y	HEL	EDA-PNIT/1000	n /	SAL
				F+1. WIN 100 E		<u> </u>
	- 					
						

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	<u>G DATA</u>	, i			MEIDO NOSOCIATES	
Well Name MW-	5 Dat	c 11/6/90	Tin	ne of Samolina	12.33	
Joo Hame Chev. I	1/7 7 (~ / DU) 100	Number 4	-310-01	innquise no on int	tials Prt	
Sambic Loud Desett	iption ///				(M = Monitor)	
Location 21995	FOOTHILL	MyWAR	2	-	(m = tatottt@t)	ing well)
WELL DATA: Det	oth to Water /6	14 50 1000		Death	to Product M	4
Product Thickness _	MA Well Dept	h/8.5 It (spe	c) Well Denth	18.68 Sylvander	1) Wall Diament	rt.
I.	nitial Height of V	Vater in Casin	3.54	ft = volum	c 7 3 /	
_	Casing '	Volumes to be	Evacuated	Total to be ex	acuated 6.6	gal.
EVACUATION ME	THOD:	Pump # and i	vnc N/A	Hase # and	+ 4// /	gal. حر
В.	ailer# and type [PED. 3'PUC	Dedicated	$\frac{1}{\sqrt{\rho}} \leq (\sqrt{N})$	rabe <u>10/ 14-</u>	
U	ther <u>sample</u>	PORT	TYDE	(1)11)	••	
Evacuation Time: S	top 08:24 11	10 /2:38			-	
	tart <u>08:21 ///</u>		•	F	110	
Т	otal Evacation Ti	im2 /0 4	•		las/Conversions	
T	otal Evacuated Pa	rior to Sampli	ng 2.5+2.5-2.	<i>(4-, 111</i>)	of water col in ft.	
E	vacuation Rate	75	gal ner		$cyl. = \pi r^2 h$	1.72
Depth to Water during	ng Evacuation A	JA ft	NA time			•
Depth to Water at Sa	impline 12.55	f+ 12	. 36		•	
Evacuated Dry? You	After 2.5	gal. Time	h8:24	2	sing = 0.163 gal/ft	
Necovery = DI (C	<u> </u>				sing = 0.367 gal/ft	&
% Recovery at Samp	le Time 32	Time /	2:35		sing = 0.653 gal/ft	
					casing = 0.826 gal/ft	
CHEMICAL DATA:	Meter Brand/Nu	mber			sing = 1.47 gal/ft	
Calibration:	4,0	1.0	10.0	, vo casi	ng = 2.61 gal/ft	
Measured:	SC/µmhos pH	7 <u>T°C</u>	Time	/ Volume Evag	hinted (mal)	
		- 0	/ 111110	VOIHILE EVAL	cuated (gai.)	
	/		/ /-			
			/ -			
				/		
						
						
SAMPLE: Color	U1.6R			dor 4/5	STAONG	
Description of matter Sampling Method:	r in sample:	SM AMT.	SUSPENDED	5167,		
Sample Port: Rate $\overline{\nu}_{i}$	A gnm Totaliza	De 5A	nou poat			
Time			gal.			
# of Sample	~ · 3	_	· · · · · · · · · · · · · · · · · · ·			
# of Sample Cont. ID	Cont. Vol ² Type ¹	Fil ³ Rcf ⁴	Preservative	Analytic	Turn ⁵	LAB
2 110 -	1		(specify)	Method		5.15
<u>6 114-5</u>	<u>10/0 40</u>	ν	HCL	EPA-8015/60	א כיכ	541
		<u> </u>		- marjec	<u> </u>	7/10
				 		
						
	<u> </u>					
						
				-		
						

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5 Turnaround [N = Normal, W = I week, R = 24 hour, HOLD (spell)]
ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WALLER SAMPLING	<u>G DATA</u>	1 i		WEI	SS ASSOCIATE	is 🗸 🌈
Well Name _MW		_ Datc_11/6/9	<i>D</i>	nc of Sampling	14:03	
Job Name CHeu 1		—— /——/		fnitial	74	
Sample Point Descr	iption _ <i>M</i>					
Location 2.19	195 FC	OTHILL H	AYWACO	(/	M = Monito	ring Well
MEGGE DATA: De	oth to Water	1950 01)	Denth as	D	(A
Product Thickness	N/A Well	Depth! 7 /2 ft (s	r pamping) pcc) Well Death	Depth to	Product	1/14 L
Ï	nitial Heigh	t of Water in Casi	ng 7.47	(Sounded)	Well Diames	ter <u>4</u> ii
_		sing Volumes to t	e Evacuated	ft. = volume	1.61	gal
EVACUATION ME	THOD:		type N/A	Total to be evace	rated 4.8	3 <u>3</u> gal
В	Bailer# and t	ype ded 3 pv	Dedicated	Hose # and ty	oc _10/1/1	
C)ther <	Amou Duri	Type_	4es (Y/N)		
Evacuation Time: S	top <u>09-11</u>	1117 13:4		<u> </u>		
S	tart <u>09:09</u>		Ī	-	_	
T	otal Evacati	on Time	7		Conversions	
Т	otal Evacua	ted Prior to Samp		5 $(gal.)$ $h = ht of x$		
E	vacuation R	ate 183			rater col in ft.	
Depth to Water duri	ng Evacuation	on W/A fo	sui. per			
Depth to Water at Sa	moling	$N/N = c_{\star}$				
Evacuated Dry? 113	After	5 gai. Tim	c 09:11		= 0.163 gal/ft	
80% Recovery =	DTW =	16.07		V ₃ casing	= 0.367 gal/ft	Ē
% Recovery at Samp	le Time/	Time		V ₄ casing	= 0.653 gal/ft	
80% Recovery = % Recovery at Samp <u>CHEMICAL DATA</u> :		' > PURGED	ENTIRE WOL	V tension	ig = 0.826 gal/(= 1.47 gal/ft	it
O 124 -		d/Number		V8 casing =		
	4.0	7.0	10.0	10 (23/11/8 2	- 2.01 Railte	
Measured:	SC/µmhos/	pH 7/°(Time /	Volume Evacuat	ed (ast)	
			/	Zvacua,	.cd (gal.)	
•		/			/	
		/				
			/	/ /		
						
SAMPLE: Color	NON	1 :£		V.	·	
Description of matter	in sample:	NON	O	dor <u>U5</u>		
Sampling Method:	_Used	SIDE	5 Amole,	()-ai		
Sample Port: Rate	gpm Tot	alizer	gal.	poni		
Time '						
# of Sample	Cont. V	ol ² Fil ³ Ref ⁴	Preservative			
Cont. ID	Type ¹	*(01	(specify)	Analytic Method	Turn ⁵	LAB
2 119-7	W/V i	10 N Y		-04 0 /	ſ	
	/		HEL	EVA 8015/60	2 N	5AL
			·			
						
						
						
			<u> </u>			
<u> </u>						
I Sample Type Codes: W = Container Type Codes: W	Water S - Sail	D 3 0 1				
Container Type Codes: V Cap Codes: PT = Plastic,	= VOA/Tellon	, Describe Other Septa, P = Plastic, C or	B = Clear/Brown C	ace Describe Oct		
				ass, Describe Other		
Jurnaround N = Normal	- 1 - 1 -					
ADDITIONAL COMA	, W = 1 week, R	<pre>f): 4 = Refrigerated (Y</pre>	(I)			

F:\all\admn\forms\watsamp.wp

1.974

FREE PRODUCT DID NOT SAMPLE

WATER SAMPLI	NG DATA	. 1. 1.	- on apor	W	EISS ASSOCIATES	P P
Tob Name Class	J-85 D	atc 11/6/4	Time	of Sampling		
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		oo munner -	4 ~ ^ 1/ \ \ \ 1		ils Rit	
and bearing to the total	cription				(M = Monitori	ng Well
WELL DATA: I	s Well De	It (statio	, pumping)	Depth to	Product	(t
Product Thicknes	Initial Height of	Pin If (si	occ) Well Depth _	ft(sounded)	Well Diamete	riг
		mater in Casi	ng .	ff = volume		_
EVACUATION M	Casim	e commes to 6	e Evacuated.	I otal to be evad	žuated	1
	<del>-</del>	ւ գուն ա Չուն	type Dedicated	Hose # and ty	/pc	
	Other		Dedicated	(Y/N)	• .	
Evacuation Time:	Stop			<del>/</del>		
	Start		_		<i>ta</i> .	
	Total Evacation	Time	<del></del>	/	Conversions	
	Total Evacuated	Prior to Sampl	ine /		adius in (t.	
	Evacuation Rate		gal nas -		water col in ft.	
Depth to Water du	Fing Evacuation	fr	/ <b>*:</b>	7.48 gal/fi		
Depth to Water at	Sampling	ft.	time		; = 0.163 gal/ft	
Evacuated Dry? _	After	gal. Time	c	• -	z = 0.367 gal/ft	
80% Recovery =		/		_	g = 0.653  gal/ft	ē
% Recovery at San	aple Time	Time _			ing = 0.826 gal/ft	
Curaca b					g = 1.47 gal/ft	
CHEMICAL DATA	A: Meter Brand/N		· · · · · · · · · · · · · · · · · · ·		= 2.61 gal/ft	
Calibration: Measured:		<u> </u>	10.0	_	<b>5</b> / ·	
Mcasuled:	SC/µmhos 6	H T°(	C Time	Volume Evacua	ited (gal.)	
	<del></del>					
	<del>-/</del> -	<u> </u>	<del></del>			
	<del>/</del>				<u> </u>	
,	/					
SAMPLE: Color _			0.1			
Description of mat	ter in sample:		Ode	or		
Sampling Method: Sample Port: Rate						
Time	gpm totaliz	er	gal.			
_		<del></del>		······································		
# of Sample Cont. ID	Cont. Vol ² Type ¹	Fil ³ Ref ⁴	Preservative	Analytic	Turn ⁵	LAB
00ii. 1D	1 ype-		(specify)	Method	K 0112	LAD
	<u> </u>					
<del></del>				<del>/</del>	<del></del>	
<del></del>						
				/		
	/			<u> </u>		
/						
	<del></del>	<del></del>				
S						
Sample Type Codes: W	Water S - Sail D	1 0 1	•			

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Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]
ADDITIONAL COMMENTS CONDITIONS DOOR | 10 cm |

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WATER SAMPLING DATA	HE133 N22OCIVIE2
Well Name MW-12 Date 1/16/90 Time of	Sampling <u>/0: 28</u>
300 Number 9-31()-() 1	Initials Rt
- Property College   Property	
Location 21995 FOOTHICL BLUD. HAYWAR	2D
WELL DATA: Depth to Water 15.19 ft fetetto numeros 14.1	471
Well Depth 12.6 ft (spec) Well Depth 20.	72ft(sounded) Well Diameter :
ractial fields of water in Casing 4.40	ft = volume 2.92
Casing Volumes to be Evacuated.	Total to be evacuated 8.77 gal
I winp # and type // //	Hose # and type NA
Batter# and type <u>Ord &gt; Dve.</u> Dedicated	
Other SAMPLE DON'T Type	
Evacuation Time: Stop 10:28	•
Start 1019	Formulas/Conversions
Total Evacation Time 9	r = well radius in ft.
Total Evacuated Prior to Sampling 8,9	gal. h = ht of water col in ft.
Evacuation Rate 190 gal. per min	iutė vol. in cyl. = πr ² h
Depth to Water during Evacuation N/A ft time	7.48 gal/ft ³
Depth to Water at Sampling NA ft. NA time	$V_2$ casing = 0.163 gal/(t
Evacuated Div. 700 After gal Time	$V_3$ " casing = 0.367 gal/ft
80% Recovery =	V ₄ " casing = 0.653 gal/ft
% Recovery at Sample Time Time	V _{4.5} " casing = 0.826 gal/ft
CHEMICAL DATA MAN DE LAS	$V_6$ " casing = 1.47 gal/ft
CHEMICAL DATA: Meter Brand/Number	V8 casing = 2.61 gal/ft
Messured: 10.0	•
Measured: SC/mhos pH T°C Time	Volume Evacuated (gal.)
<del>///</del>	
<del></del>	
/	
/	
SAMPLE: Color _ SUBHT HAZE	104 ( ) 0
Description of matter in sample: Son. AmT. Cheam	COLORED SILI
Compliant Made at the life of the last	1010001 54
Sampling Method: 1/500 Sine Sampling	COLORD SILI
Sample Port: Rategpm Totalizer	COLUMN STEI
Sampling Method: 1/500 Sine Sampling	COLUMN SICI
Sample Port: Rategpm Totalizer gal.  # of Sample Cont. Vol ² Fil ³ Pass Pass Pass Pass Pass Pass Pass Pas	
Sample Port: Rategpm Totalizergal.  # of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative	Analytic Turn ⁵ LAB
# of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative (specify)	Analytic Turn ⁵ LAB Method
# of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative (specify)	Analytic Turn ⁵ LAB Method
# of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative (specify)	Analytic Turn ⁵ LAB
# of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative (specify)	Analytic Turn ⁵ LAB Method
# of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative (specify)	Analytic Turn ⁵ LAB Method
# of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative (specify)	Analytic Turn ⁵ LAB Method
# of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative (specify)	Analytic Turn ⁵ LAB Method
# of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative (specify)	Analytic Turn ⁵ LAB Method

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ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WATER SAMPLING DATA	The state of the s
Well Name WW-14 Date // 690 Time of Job Name CHEV. HAY WARD Job Number 4-3/0-0/ Sample Point Description 100	Of Sampling 12:47a
Sample De CHEV 1+44 WHO Job Number 4-310-01	Initials 1 SC
2100:-	(M = Monitoring Well)
	·
WELL DATA: Depth to Water 2/62 ft (static) pumping)  Product Thickness 4/6 Well Depth 4/6 ft (static) Pumping)	Depth to Product ~/A ft.
Product Thickness Well Depth 445 ft (spec) Well Depth 445 ft (spec) Well Depth 447	(47 ft(sounded) Well Diameter 2 in
Initial Height of Water in Casing 19.87 PH  Casing Volumes to be Evacuated.	It. = volume 5.43/ RH gal.
EVACUATION METHOD: Pump # and type 21/2	Total to be evacuated, 7/5, 99 Kgal.
Dellar Hand A. P. C.	(Y/N)
Other	(1714)
Evacuation Time: Stop	· ·
Start	Formulas/Conversions
Total Evacation Time 45 mg	r — well mading in th
Total Evacuated Prior to Sampling 100	σ21 h = ht of mat = -1 ≤ - α
Evacuation Rate 22 colorer -:	nute vol. in cyl. = $\pi r^2 h$
Depth to water during Evacuation N//3 ft N/A time	7.48 gal/(t ³
Depth to Water at Sampling of ft. Nip time	V2" casing = 0.163 gal/ft
Evacuated Dry? No After N/P gal. Time N/N 80% Recovery = N/P	V ₃ " casing = 0.367 gal/ft
% Recovery at Sample Time N/A Time N/A	$V_4$ casing = 0.653 gal/ft
Time N//	$V_{4,5}$ casing = 0.826 gal/ft
CHEMICAL DATA: Meter Brand/Number	$V_6$ casing = 1.47 gal/ft
Calibration:	V8 casing = 2.61 gal/ft
Measured:	
To Time	Volume Eyacuated (gal.)
	<del>/</del>
	<del>-//</del>
	<del>-/</del>
CAMPI E. O. I.	
Sample: Color Tan  Description of matter in sample: Suspended Silli	Mane
Sampling McCinon: Mer-alled and the	
Sample Port: Rate NA gpm Totalizer NIA gal	
Time NA gal.	
# of Sample Cont. Vol ² Fil ³ Ref ⁴ Preservative	
Cont. ID Type ¹ (specify)	Analytic Turn ⁵ LAB Method
2 119-14 W/V 40 N Y HEL E	20 De = // 20 /
	VH 8015/607 N SAL
I Samula Tura Cada au au	

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ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Well Name MW  Job Name Cite H  Sample Point Descrip	<u>-15</u>	Data 711				
Inh Name Ciller 11		Date_T()	6/40	Tim	c of Samuline 74	. 16.
100 Marine Clato. L.I	AYWA	20Job Numi	bet 4	-3/0 -0/	Initials	PDV.
					(M	= Monitoring Well
Location 21995	; Fr	XTHILL	1-1A1	an Ann		•
WELL DATA: Dept	th to Wate	cc 17.42ft	Vstatic 'n	umninal	Denth to D	Isadust //a
Product Thickness	//a_ Wc	Il Depth 22	ft (spec	) Well Death	Depth to r	TOURCE AMP. It
In	,—— itial Heig	ht of Water i	n Casino	y went bepth :	ft. = volume	on Diameter 2 in
	3 6	Casine Volum	es to be l	Fvacuated	Total to be evacua	gal.
EVACUATION MET	HOD:	Pump	# and to	ine ilm	Hose # and type	ated <u>d.do</u> gal.
			48 % T	edicated	$\frac{Y}{Y} = (\widehat{Y}/N)$	C
Ot	her _	MIA	<u> </u>		<u>/ (4/14)</u>	••
Evacuation Time: Sto	)D	19:27	18:5%			-
Sta	rt /3:/5	13.47	17.70			
		tion Time	1600		Formulas/C	
				g2.2	r = weli rad	
Ev	acuation	Rate	3ampiii 124	в <u>— « «</u>	gal. h = ht of wa	iter col in ft.
Depth to Water during	e Evacuat	tion c/h	6+	gai. per	minute vol. in cyl. =	= arth
Depth to Water at San	s ≈vacua. nnlino	11/2 5	_ L	time	7.48 gal/ft ³	
Depth to Water at San Evacuated Dry? Yes	After	70 001	ام <u></u>	w/// time	V ₂ " casing =	= 0.163 gal/ft
80% Recovery =	20101 N/A	72 767 gal.	I Imc_	73:27	V ₃ " casing =	
80% Recovery =	· Time	N/14 ~	••	asip.	V ₄ * casing =	= 0.653 gal/ft
DWAS ABLE TO	ACHTEV.	CEDIATIO	ime	2///	V _{4.5} " casing	g = 0.826  gal/ft
CHEMICAL DATA:	Meter Bra	nd/Number	20 10	ACCURE AFT	$2U_{\text{Min}}V_{6}$ casing =	1.47 gal/ft
Calibration:	40				V8 casing =	2.61 gal/ft
	SC/µmhos			10.0	/	
		ури	T/C	Time.	Volume Eyacuate	ed (gal.),
-		<del></del>	/	/-	/	
			<i></i>	/ -	<del></del>	
. <del>-</del>	,			,		7
		/		- <del>/</del>	/	
 - -				 		<u> </u>
 - - -				/ 		<u>/</u>
SAMPLE: Color	Toa					
SAMPLE: Color	in sample	511.000	120 8	O	dor <u>None.</u>	<u>/</u>
Description of matter Sampling Method:	in sample	Suspend	2121	i16	dor <u>None.</u>	<u>_</u>
Description of matter Sampling Method: Sample Port: Rate	in sample <u>Lecantia</u> //gpm T	Suspend	led s end of NA	ilt 5 / rvc	dor <u>None.</u>	<u>/</u>
Description of matter Sampling Method:	in sample	Suspend	encl of	i16	dor <u>None.</u>	<u>/</u>
Sampling Method: Sample Port: Rate	in sample decarting //gpm To	Suspend g from otalizer	encl of NA	.// <u></u>		
Description of matter Sampling Method: Sample Port: Rate	in sample <u>Lecantia</u> //gpm T	Suspend	encl of NA	gal.  Preservative	Analytic	Turn ⁵ LAB
Description of matter Sampling Method: Sample Port: Rate Time  # of Sample	in sample  Lecantin  //Epm To	Suspend Fight otalizer Vol ² Fil ³	encl of NA	gal.  Preservative (specify)		Turn ⁵ LAB
Description of matter Sampling Method: Sample Port: Rate Time  # of Sample	in sample  Lecantin  //Epm To	Suspend g from otalizer	encl of NA	gal.  Preservative	Analytic	Turn ⁵ LAB  N SAL
Description of matter Sampling Method: Sample Port: Rate Time  # of Sample	in sample  Lecantin  //Epm To	Suspend Fight otalizer Vol ² Fil ³	encl of NA	gal.  Preservative (specify)	Analytic	Turn ⁵ LAB  N SAC
Description of matter Sampling Method: Sample Port: Rate Time  # of Sample	in sample  Lecantin  //Epm To	Suspend Fight otalizer Vol ² Fil ³	encl of NA	gal.  Preservative (specify)	Analytic	Turn ⁵ LAB
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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	WCDD NOOCENTES
Well Name MW-16 Date 11/6/40  Job Name Clov. HAYWARD Job Number 4-	Time of Sampling 15:02
Job Name Chou. HAYWARD Job Number 4-	-310 -01 Initials RH
Location 21995 FOOTHILL HAYWARD	. /
WELL DATA: Depth to Water 21.27 ft (static, pur	mping) Depth to Product N/H [
well Denth 40 ft lengel	Wall Daniel 2X // Cut
and an end of water in Cashing	162.07 If - volume $2.2%$
EMACHIATION ASSESSMENT OF LANDING TO UC LY	vacuated. 10tal to be evacuated 8' 2' regi
Tump # and [VD	C 17/4 Hore # and tune 4 /4
Banci# and type 1/2 x 48 rvr Dec	dicated (PC) w/m Y (V/N)
Other D/A	
	•
Start <u>14:34</u>	Formulas/Conversions
Total Evacation Time 19min	r = well radius in ft.
Total Evacuated Prior to Sampling	$S_{23}$ gal. h = ht of water col in ft.
Evacuation Rate 4/3	gal. per minute vol. in cyl. = $\pi r^2 h$
Depth to Water during Evacuation N/A ft. N/A  Depth to Water at Sampling 27.46	c time 7.48 gal/ft ³
$=$ - $\kappa$	2
Evacuated Dry? After A/A gal. Time	$V_3$ " casing = 0.367 gal/ft
80% Recovery = N/A  % Recovery at Sample Time N/A  Time N/A	V ₄ " casing = 0.653 gal/ft
Time /	$V_{4.5}$ " casing = 0.826 gal/ft
CHEMICAL DATA: Meter Brand/Number	$V_6$ " casing = 1.47 gal/ft
Calibration:	V8 casing = 2.61 gal/ft
Measured:	_ 10.0
SC/mmos pH T°C	Time Volume Evacuated (gal.)
<del>/</del>	
SAMPLE: Color	Odor <i>Strone</i>
Description of matter in sample: Silvy particles Sampling Method: Description	suspended strong
Sampling Method: Decart out of end Sample Port: Rate NA gpm Totalizer NA	of 1/2" X 5' PVC
Time NA	gal.
# of Sample Cont Vol ² Fit ³ P. c ⁴	
# of Sample Cont. Vol ² Fil ³ Ref ⁴ P Cont. ID Type ¹	Preservative Analytic Turn ⁵ LAB
7 110 -11 1.	(specify) Method
2 114-16 W/V 40 N Y	HEL EPA BOISTONS N SAI
	THE DITTORY DAC

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2 = Volume are realising 2 = Eller d (V/SO) d = Definition d (V/SO)

^{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:

, ,	<del></del> 1	UP B	) . A 12		1	/1
WATER SAMPLI			LANK	WEIS	SS ASSOCIATES	1
Well Name	1)	11/6/0	<b>0</b>	wers 2 <u>/</u> nc of Sampling	-100	- (
Job Name		oh Number	Tu	nc of Sampling /	2.03	
Sample Point Desc	crintion	00 140411061		Initial		
Location				()	M = Monitoring V	VcII
WELL DATA: [	Ocpth to Water	ft (static	. pumpine)	Death to	Product	
Product Thickness	S Well De	pth ft (so	ec) Well Death	ft/counded) 1	Wall No.	<del>-</del>
	rumai ricigiit Of	water in Casii	16	ft - volume		
DICA COLLABORATION	Casin	R A OTHINGS TO D	c Evacuated.	Total to be evacu	uated .	021
EVACUATION M	LITTOD.	rump # and	type	Hose # and fvr	)c	541.
•	Danci # and type		Dedicated	(V/N)		
Evacuation Time:	Other					
Evacuation Time:	Stort		<del>_</del>		•	
	Start			Formulas/	Conversions	
•	Total Evacuated		<del>.</del> /	r = well ra		
	Evacuation Rate	ritor to Sampl			ater col in ft.	
Depth to Water du	ring Evacuation	- F+	gal. per	-		`
Depth to Water at	Sampling			•		
Evacuated Dry?	After	cal Time	tim: •	. 2	= 0.163 gal/ft	
80% Recovery = _			´ <del></del>		= 0.367 gal/ft	:
80% Recovery = _ % Recovery at San	ple Time	Z Time			= 0.653 gal/ft	
					g = 0.826 gal/ft = 1.47 gal/ft	
CHEMICAL DATA	: Meter Brand/N	lumber		V8 casing =		
Calibration:	9:0	7.0	10.0	. · · · · · · · · · · · · · · · · · · ·	- 2.01 galyti	
Measured:	SC/µmhos p	H T°C		Volume Evacuat	red (est)	
	/		<del></del>		(0)	
			<del></del>			
		<del></del>	<del>_</del>			
•			<del></del>			
SAMPLE: Color	NONE			dor NONE		
Description of mat	ter in sample:	Mas		dor <u>NONE</u>	egat	
Sampling Method: Sample Port: Rate	gpm Totaliz	,			<u> </u>	
Time	gpid Totati	er	gal.			
≠ of Sample		_	· · · · · · · · · · · · · · · · · · ·			<b>—</b>
# of Sample Cont. ID	Cont. Vol ² Type ¹	Fil ³ Ref ⁴	Preservative	Analytic	Turn ⁵ LA	В
_	Lype I	(4)	(specify)	Method,		
2 119-21	- W/ 40	<u> 70</u> 9	HEL	ERA POISTONZ	N SA	1
					·	$\stackrel{\smile}{-}$
		<del></del>			· —— ——	_
		<del>_</del>				
					<del></del>	
	·					
C   m -					·	

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5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]
ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

5## 11170

Chain-of-Custody Record

Chevron Facility Number # 90260  Laboratory							Chevron Contact (Name) WALTER POSIUS ZNY  (Phone) 842-9040  Laboratory Name SUPFRIOR  Laboratory Contract Number N26 CWC 0 Z 40-9-X  Samples Collected by (Name) ROBERTHOFFMAN PHUL CARROYZA  Collection Date (1/6/90  Signature WOSHAM										
1	2.2		- in C	5							Anal	yses To	Be Perfo	rmed			
Sample Number	Lab Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Chargost	Type G = Grab C = Composite		Sample Preservation	lced	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	EM BOIS 602	The second secon	A Retrarks
119-4		2	W	6	11:26	HCL	Yes			.==						<u> </u>	33
119-5		12	·		12:38												W. Les
119-7	<u></u>	2			1403											<u>#</u>	
119-12	<del></del>	7			10:28										V	10	
114-14	· ·	2			12:47										V		
119-15		2			14:16										V	1	
119-16		2			15.03										V		
119-21		2	<b>1</b>	4	14:55	+	1								/		
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			,											<u></u>		į	n (d. 4)
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1																I A D	
Freirnauistad By Stans	ature)		Organiza [NC159		ΔC.	Date/Time 09	7.32 Re	ceived By	-3. 1A	ve),	<i>f</i>	Organ Organ	nization Colon	15500-	Date/	Time 435	Turn Around Time (Circle Choice)
Relyquished By Signa	ature)		Organiza			Date/Time		Ceived By	√Signatu	re)	<i>V</i>	Organ	nization	- الاصدر سور	Date/	Time	24 Hrs
Belvouisped BallSigo	ature)		Organiza		SOC	7/- 7-40 101	(J. 100)	ceived fo			Sinerfur		11115		11/2/ Date/		48 Hrs 5 Dav
Religious ned BA (Sign	- (A)		Organiza EXP	5500		Date/Time 07			122	100		7_			1/2	10 12:20	10 Days

## SUPERIOR ANALYTICAL LABORATORY, INC.

1555 Burke, Unit  $I \cdot$  San Francisco, Ca 94124  $\cdot$  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

## Page 1 of 2

Lab Number	Customer	Sample Id	entificati	Dat Samp 1 11/06	led	Date Analyzed	
11170- 2	119-5				11/06		11/13/90
11170- 3	119~7				11/06		11/13/90
11170- 4	119-12				11/06		11/13/90
11170- 5	119-14				11/06		11/13/90
11170- 6	119-15				11/06		11/13/90
11170- 7	119-16				11/06	/90	11/13/90
11170- 8	119-21				11/06	90	11/13/90
Laboratory No	umber:	11170	11170 2	11170 3	11170	111	
ANALYTE LIST		Amounts/	Quantitati	on Limits	(ug/L)		
OIL AND GREAS TPH/GASOLINE TPH/DIESEL RA BENZENE: TOLUENE: ETHYL BENZENE XYLENES:	RANGE: ANGE:	NA 170000 NA 31000 30000 2700 17000	NA 370000 NA 38000 36000 4700 31000	NA 160000 NA 27000 25000 1900 15000	NA 110000 NA 28000 21000 2400 14000	NA 920 NA 10 10 4 9	
Laboratory Nu	ımber:	11170 6	11170	11170			
ANALYTE LIST	•	Amounts/					
OIL AND GREAS TPH/GASOLINE TPH/DIESEL RA BENZENE: TOLUENE: ETHYL BENZENE XYLENES:	RANGE: ANGE:	NA 1300 NA 40 5 45 63	NA 15000 NA 6300 340 1300 540	NA ND<50 NA ND<0.5 ND<0.5 ND<0.5 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

Page 2 of 2 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.

Laboratory Director