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

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Marketing Department

November 6, 1991

Please send info to Chevron that all info comes to Ed Howell

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

Re: Chevron Service Station #9-0076
4625 Foothill Blvd., Oakland

Dear Mr. Shahid:

Enclosed we are forwarding the Ground Water Monitoring Report dated October 30, 1991, prepared by our consultant Weiss Associates for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in monitor wells C-1, C-3, C-6 and C-7 at concentrations of 7.1, 1.2, 1,600 and 4,600 ppb, respectively. Separate phase hydrocarbons were observed in monitor well C-2 at a measured thickness of .06-feet. Depth to ground water was measured at approximately 25 to 29-feet on-site and 35 to 41-feet off-site. The direction of ground water flow is to the southwest.

The ground water extraction system has been installed and is pending final inspections. We expect system startup to occur in December, 1991. Chevron will continue to monitor this site and report findings on a quarterly basis.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-9581.

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

Nancy Vukelich
Environmental Engineer

Enclosure

cc: Mr. Eddie So, RWQCB-Bay Area
Mr. S.A. Willer
File (9-0076Q1)

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

October 30, 1991

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

Re: Third Quarter 1991
Ground Water Monitoring Report
Chevron Service Station #9-0076
4265 Foothill Boulevard
Oakland, California
WA Job #4-417-01

Dear Ms. Vukelich:

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

SAMPLING PROCEDURES

Prior to purging and sampling the wells, WA measured the depth to ground water in each well to the nearest 0.01 ft using an electric sounder (Table 1). We also checked the wells for floating hydrocarbons or sheen. About 0.06 ft of floating hydrocarbons were measured in monitoring well C-2.

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

MONITORING AND ANALYTIC RESULTS

The top-of-casing elevation, depth to ground water and the ground water elevation for each well is presented in Table 1. The ground water elevation contours and flow direction are shown on Figure 2. The contours suggest ground water flows to the south-southwest with a very steep gradient of about 0.03 to 0.09 ft/ft.

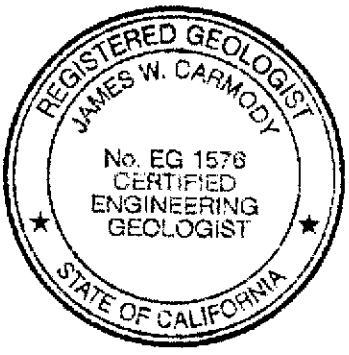
Current and historical ground water analytic results are summarized in Table 2. The water sample collection records, and the analytic report and chain-of-custody forms are included as Attachments A and B, respectively.

PROPOSED WORK SCHEDULE

The Fourth Quarter 1991 ground water sampling is scheduled for December 1991. We will submit a report presenting the field and analytic data by February 1992.

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

Sincerely,
Weiss Associates



Mariette Shin
Staff Geologist

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

MMS/JWC:fcr

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

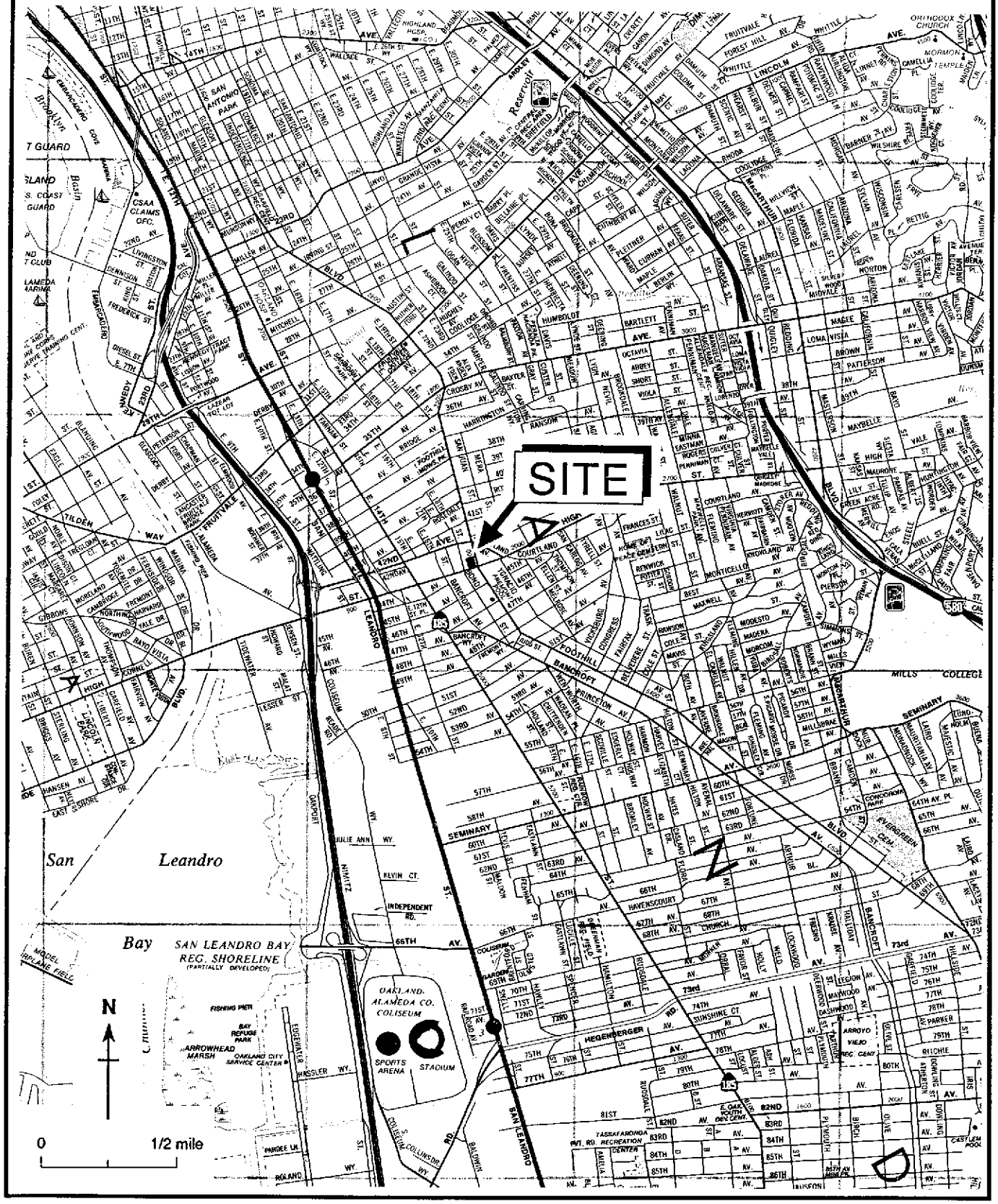

Figure 1. Site Location Map - Chevron Service Station #9-0076, 4265 Foothill Boulevard, Oakland, California

6/28/91

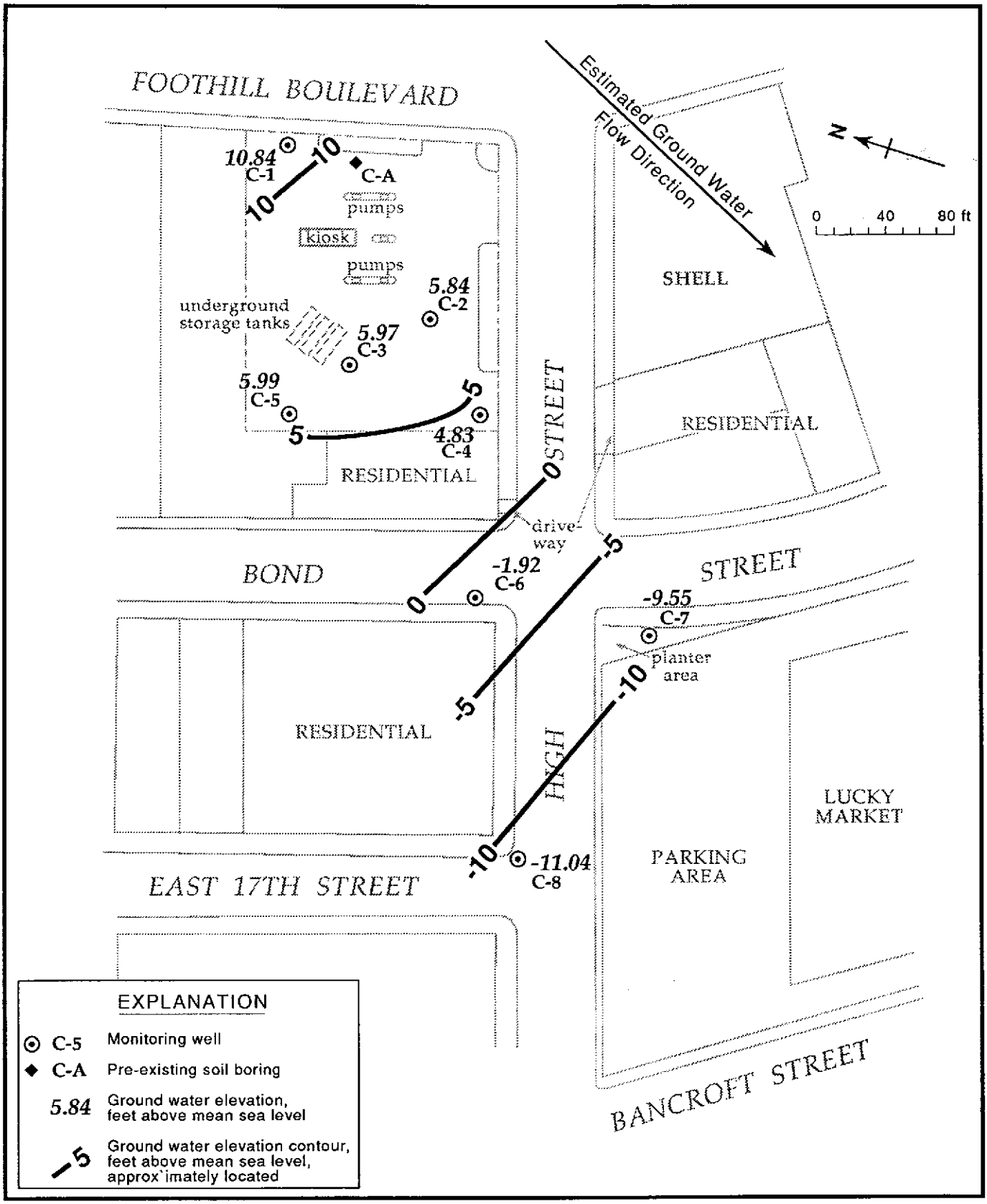

Figure 2. Monitoring Well Locations and Ground Water Elevations - September 19, 1991 - Chevron Service Station #9-0076, 4265 Foothill Boulevard, Oakland, California

TABLE 1. Ground Water Elevation Data - Chevron Service Station #9-0076, 4265 Foothill Boulevard, Oakland, California

Well ID	Date	Top-of-casing Elevation (ft above msl)	Depth to Water (ft)	Floating Hydrocarbon Thickness	Ground Water Elevation (ft above msl)
C-1	04/28/89[a]	35.42[b]	20.05		15.37
	08/08/89[a]		24.07		11.35
	12/21/89		22.81		12.61
	08/27/90		22.12		13.30
	11/04/90		25.56		9.86
	06/18/91		21.64		13.78
	09/19/91		24.58		10.84
C-2	04/28/89[a]	35.18[b]	26.44		8.74
	08/08/89[a]		29.90	0.01	5.29[c]
	12/21/89		29.32		5.86
	08/27/90		29.55	0.17	5.77[c]
	11/04/90		30.47		4.71
	06/18/91		28.33	0.06	6.90[c]
	09/19/91		29.39	0.06	5.84[c]
C-3	04/28/89[a]	35.28[b]	28.00		7.28
	08/08/89[a]		30.00		5.28
	12/21/89		30.53		4.75
	08/27/90		29.68		5.60
	11/04/90	35.30[d]	30.36		4.94
	06/18/91		28.46		6.84
	09/19/91		29.33		5.97
C-4	01/12/89[a]	33.45[b]	29.49		3.96
	04/12/89[a]		27.44		6.01
	08/08/89[a]		29.55		3.90
	12/21/89		30.02		3.43
	08/27/90	33.48[d]	29.02		4.46
	11/04/90		29.81		3.67
	06/18/91		27.45		6.03
	09/19/91		28.65		4.83
C-5	08/27/90	35.50	29.83		5.67
	11/14/90		30.56		4.94
	06/18/91		28.52		6.98
	09/19/91		29.51		5.99
C-6	08/27/90	32.40	44.11		-11.71
	11/14/90		44.03		-11.63
	06/18/91		43.49		-11.09
	09/19/91		34.32		-1.92

— Table 1 continues on next page —

TABLE 1. Ground Water Elevation Data - Chevron Service Station #9-0076, 4265 Foothill Boulevard, Oakland, California (continued)

Well ID	Date	Top-of-casing Elevation (ft above msl)	Depth to Water (ft)	Floating Hydrocarbon Thickness	Ground Water Elevation (ft above msl)
C-7	08/27/90	32.17	44.23		-12.06
	11/14/90		44.11		-11.94
	06/18/91		42.05		-9.88
	09/19/91		41.72		-9.55
C-8	11/14/90	30.68	43.29		-12.61
	06/18/91		42.62		-11.94
	09/19/91		41.72		-11.04

[a] = Ground water elevation measured against project datum, not actual top-of-casing elevation.
[b] = Top-of-casing elevation surveyed 1/03/90.
[c] = Ground water elevation adjusted for floating hydrocarbons in the well by the relation: Ground water elevation = Top-of-casing elevation - Depth to water + .8 (product thickness).
[d] = Top-of-casing elevation resurveyed 08/21/90.

TABLE 2. Analytic Results for Ground Water, Chevron Service Station #9-0076, 4265 Foothill Blvd, Oakland, California

Well ID	Analytic Date	Analytical Lab	Depth to Water (ft)	TPH-G	B	E	T	X
				<----------parts per billion---------->				
C-1	04/28/89	SAL	20.05	940	30	11	1.3	13
	08/08/89	SAL	24.07	820	45	13	2	13
	08/27/90	GTEL	22.12	440	15	6	1	13
	06/18/91	SAL	21.64	74	5.6	1.9	0.6	1.3
	09/19/91	**SAL**	**24.58**	**150**	**7.1**	**2.3**	**<0.5**	**3**
C-2	04/28/89*	SAL	26.44	120,000	30,000	3,000	22,000	17,000
	08/08/89*	---	29.90	---	---	---	---	---
	08/27/90*	---	29.55	---	---	---	---	---
	06/18/91*	---	28.33	---	---	---	---	---
	09/19/91*	---	**29.39**	---	---	---	---	---
C-3	04/28/89	SAL	28.00	<500	1.7	<0.5	<0.5	<0.5
	08/08/89	SAL	30.00	<500	1	<0.5	<0.5	<0.5
	08/27/90	GTEL	29.68	<50	<0.3	<0.3	<0.3	<0.6
	06/18/91	SAL	28.46	52	1.1	<0.5	<0.5	1.2
	09/19/91	**SAL**	**29.33**	**73**	**1.2**	**<0.5**	**<0.5**	**<0.5**
C-4	04/28/89	SAL	29.49	20,000	6,300	230	550	1,500
	08/08/89	SAL	29.55	8,000	7,500	88	340	1,000
	08/27/90	GTEL	29.02	26,000	10,000	410	280	1,400
	06/18/91	SAL	27.45	34,000	14,000	450	410	1,300
	09/19/91	**SAL**	**28.65**	**16,000**	**7,400**	**110**	**90**	**460**
C-5	08/27/90	GTEL	29.83	<50	<0.3	<0.3	<0.3	<0.6
	06/18/91	SAL	28.52	<50	<0.5	<0.5	<0.5	<0.5
	09/19/91	**SAL**	**29.51**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
C-6	08/27/90	GTEL	44.11	7,200	2,100	41	6	300
	06/18/91	SAL	43.49	4,400	2,500	160	18	77
	09/19/91	**SAL**	**34.32**	**3,100**	**1,600**	**73**	**8.3**	**8**
C-7	08/27/90	GTEL	44.23	110	26	4	0.8	6
	06/18/91	SAL	42.05	23,000	5,700	1,000	420	2,800
	09/19/91	**SAL**	**41.72**	**26,000**	**4,600**	**970**	**330**	**2,400**
C-8	11/14/90	GTEL	43.29	<50	<0.3	<0.3	<0.3	<0.6
	06/18/91	SAL	42.62	<50	<0.5	<0.5	<0.5	<0.5
	09/19/91	**SAL**	**41.72**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
Bailer Blank	08/08/89	SAL		<500	<0.5	<0.5	<0.5	<0.5
	08/27/90	GTEL		<50	<0.3	<0.3	<0.3	<0.6
	06/18/91	SAL		<50	<0.5	<0.5	<0.5	0.5

-- Table 2 continues on next page --

TABLE 2. Analytic Results for Ground Water, Chevron Service Station #9-0076, 4265 Foothill Blvd, Oakland, California (continued)

Well ID	Analytic Date	Analytical Lab	Depth to Water (ft)	TPH-G	B	E	T	X
				<----------parts per billion---------->				
Travel Blank	04/28/89	SAL		<500	<0.5	<0.5	<0.5	<0.5
	08/08/89	SAL		<500	<0.5	<0.5	<0.5	<0.5
	08/27/90	GTEL		<50	<0.3	<0.3	<0.3	<0.6
	11/14/90	GTEL		<50	<0.3	<0.3	<0.3	<0.6
	06/18/91	SAL		<50	<0.5	<0.5	<0.5	<0.5
	09/19/91	**SAL**		**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
DHS MCLs	---	---		NE	1	680	100[a]	1,750

Abbreviations:

TPH-G = Total Petroleum Hydrocarbons as Gasoline, by Modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
DHS MCLs = Department of Health Services maximum contaminant levels for drinking water
NE = Not established
* = Floating hydrocarbons in well
a = DHS recommended action level for drinking water

Analytical Laboratory:

SAL = Superior Precision Analytical, Inc., San Francisco, California
GTEL = GTEL Environmental Laboratories, Inc., Concord, California

ATTACHMENT A

WATER SAMPLE COLLECTION RECORDS

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-1 Date 9/19/91 Time of Sampling 1055

Job Name Chev. Oak. 2 Job Number 4-417-01 Initials OC

Sample Point Description M (M = Monitoring Well)

Location E. SIDE

WELL DATA: Depth to Water 24.58 ft (static, pumping) Depth to Product 0 ft.

Product Thickness 0 Well Depth 39.89 ft (spec) Well Depth 39.85 ft(sounded) Well Diameter 3 in

Initial Height of Water in Casing 15.27 ft. = volume 5.6 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 16.8 gal.

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

Bailer# and type — Dedicated NO (Y/N)

Other 1½ X 60 PVC WA # BC

Evacuation Time: Stop 0851 0857 1029

Start 0839 0854 1025

Total Evacation Time 21

Total Evacuated Prior to Sampling 16.8 gal.

Evacuation Rate 0.8 gal. per minute

Depth to Water during Evacuation / ft. / time

Depth to Water at Sampling 35.86 ft. 1056 time

Evacuated Dry? YES After 11.5 gal. Time 0857

80% Recovery = / * CONTD. BAILING UNTIL 3 CAS

% Recovery at Sample Time / Time VOLS. PURGED

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 STRONG

Description of matter in sample: NONE

Sampling Method: DECANT FROM TEF-BLR. W/ RO

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	091-01	W/CV	40mL	N	Y	HCL	8015/8020	N	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-2 Date 9/19/91 Time of Sampling N/A
Job Name Chm. Oak. 2 Job Number 4-417-01 Initials DC
Sample Point Description M (M = Monitoring Well)
Location S. CENTRAL

WELL DATA: Depth to Water 29.37 ft (static, pumping) * Depth to Product 29.31 ft.
Product Thickness 0.06 Well Depth 32.34 ft (spec) Well Depth 35.03 ft (sounded) Well Diameter ___ in
Initial Height of Water in Casing 2.97 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 N (Y/N)
Other _____

Evacuation Time: Stop _____ _____ _____
Start _____ _____ _____
Total Evacation Time N/A
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: N/A
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
*	NO SAMPLE TAKEN DUE TO THICKNESS OF FLOATING PRODUCT								

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 C-3 Date 9/19/91 Time of Sampling 1015

Job Name Clea. OAK. 2 Job Number 4-417-01 Initials OC

Sample Point Description M (M = Monitoring Well)

Location MID LOT - NEAR TANKS

WELL DATA: Depth to Water 29.33 ft (static, pumping) Depth to Product 0 ft.

Product Thickness 0 Well Depth ~~39.88~~ ft (spec) Well Depth 39.88 ft(sounded) Well Diameter 3 in

Initial Height of Water in Casing 10.55 ft. = volume 3.9 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 11.6 gal.

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

Bailer# and type 1½ X 60" PVC Dedicated NO (Y/N)

Other WA # BL

Evacuation Time: Stop 0950 1008

Start 0934 1005

Total Evacation Time 19 MIN.

Total Evacuated Prior to Sampling 12 gal.

Evacuation Rate 0.65 gal. per minute

Depth to Water during Evacuation / ft. / time

Depth to Water at Sampling / ft. / time

Evacuated Dry? YES After 10 gal. Time 0950

80% Recovery = * CONTD. BAILING UNTIL 3 CAS. VOLS.

% Recovery at Sample Time / Time PURGED

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 LT. BROWN Odor LIGHT

Description of matter in sample: FINE OR/BR SILT

Sampling Method: DECANT FROM TEF. BLR. # RP

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	091-03	w/cv	40mL	N	Y	HCl	8015 / 8020	N	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-4 Date 9/19/91 Time of Sampling 1251

Job Name Chev. OAK. 2 Job Number 4-417-01 Initials OC

Sample Point Description M (M = Monitoring Well)

Location SW CORNER OF LOT

WELL DATA: Depth to Water 28.65 ft (static, pumping) Depth to Product 0 ft.

Product Thickness 0 Well Depth 39.86 ft (spec) Well Depth 40.35 ft(sounded) Well Diameter 3 in

Initial Height of Water in Casing 11.70 ft. = volume 4.3 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 12.9 gal.

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

Bailer# and type 1/2X60" PVC Dedicated NO (Y/N)

Other WA # BN

Evacuation Time: Stop 1049

Start 1035

Total Evacation Time 14 min

Total Evacuated Prior to Sampling 6.0 gal.

Evacuation Rate 0.4 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 31.87 ft. 1056/1284 time

Evacuated Dry? YES After 6.0 gal. Time 1649

80% Recovery = 30.99 DTW

% 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 STRONG

Description of matter in sample: SOME FOREIGN MATTER

Sampling Method: DECANT FROM TEF. BLR. W/ AN

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	091-04	w/cV	40mL	N	Y	HCL	8015/8020	N	CAL

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 C-5 Date 9/19/91 Time of Sampling 1132

Job Name Chev. Oak. 2 Job Number 4-417-01 Initials OC

Sample Point Description M (M = Monitoring Well)

Location NW CORNER BEHIND FENCED REM. ENCLOSURE

WELL DATA: Depth to Water 29.51 ft (static, pumping) Depth to Product 0 ft.

Product Thickness 0 Well Depth ___ ft (spec) Well Depth 44.83 ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 15.32 ft. = volume 2.5 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 7.5 gal.

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

Bailer# and type 1⅛x60" PVC Dedicated YES (Y/N)

Other ___

Evacuation Time: Stop 1127

Start 1115

Total Evacation Time 12 min.

Total Evacuated Prior to Sampling 7.5 gal.

Evacuation Rate 0.6 gal. per minute

Depth to Water during Evacuation N/A 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 MED. OR/BR Odor NONE

Description of matter in sample: 1-2% - FINE SILT

Sampling Method: DECANT FROM DED. 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	091-05	W/CV	40mL	N	Y	HCL	8015/8020	N	SA2

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 C-6 Date 9.19.91 Time of Sampling 1007

Job Name GREY OAK II Job Number 4.417.01 Initials CC

Sample Point Description M (M = Monitoring Well)

Location CORNER OF BOND & HIGH

WELL DATA: Depth to Water 34.32 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth — ft (spec) Well Depth 55.23 ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 20.91 ft. = volume 3.41 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 10.23 gal.

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

Bailer# and type 2" x 5' PVC Dedicated YES (Y/N)

Other —

Evacuation Time: Stop 1002

Start 938

Total Evacation Time 44

Total Evacuated Prior to Sampling 12 gal.

Evacuation Rate 0.27 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 42.31 ft. 1009 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 GREY Odor MODERATE

Description of matter in sample: BLACK SILT

Sampling Method: OED BAILER PVC

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	091-06	W/CV	40ml	N	Y	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 C-7 Date 9.19.91 Time of Sampling 1204
Job Name CHEV OAKLAND II Job Number 4.417.01 Initials CC
Sample Point Description M (M = Monitoring Well)
Location SOUTHERN CORNER OF BUSH AND HIGH

WELL DATA: Depth to Water 41.72 ft (static, pumping) Depth to Product — ft.
Product Thickness — Well Depth — ft (spec) Well Depth 54.76 ft(sounded) Well Diameter 2 in
Initial Height of Water in Casing 13.04 ft. = volume 2.13 gal.
____ Casing Volumes to be Evacuated. Total to be evacuated 6.38 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 2"x5' PVC Dedicated YES (Y/N)
Other —

Evacuation Time: Stop 1155
Start 1185
Total Evacation Time 20
Total Evacuated Prior to Sampling 8 gal.
Evacuation Rate 0.40 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling 49.91 ft. 1206 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 GREY Odor FAINT
Description of matter in sample: SILT
Sampling Method: 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	091.07	w/cv	40ml	N	Y	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 C-8 Date 9.19.91 Time of Sampling 1117
Job Name Chev Oakland TS Job Number 9.917.01 Initials CC
Sample Point Description M (M = Monitoring Well)
Location Corner of High & E. 17th

WELL DATA: Depth to Water 41.72 ft (static, pumping) Depth to Product — ft.
Product Thickness — Well Depth — ft (spec) Well Depth 59.20 ft(sounded) Well Diameter 2 in
Initial Height of Water in Casing 17.48 ft. = volume 2.85 gal.
3 Casing Volumes to be Evacuated. Total to be evacuated 8.55 gal.

EVACUATION METHOD: Pump # and type — Hose # and type 9 CC
Bailer# and type 2"x3' PVC Dedicated YES (Y/N)
Other —

Evacuation Time: Stop 1113
Start 1032
Total Evacation Time 45
Total Evacuated Prior to Sampling 9 gal.
Evacuation Rate 0.20 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling 41.76 ft. 1119 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 Brown Odor Moderate
Description of matter in sample: Brown Silt
Sampling Method: With QED 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	091.08	w/cv	40ml	Y	Y	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 BLANK Date 9/19/91 Time of Sampling 800

Job Name CHEV OAK.2 Job Number 4-417-01 Initials DC

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 N/A (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 _____

Description of matter in sample: _____

Sampling Method: _____

Sample Port: Rate ____gpm Totalizer _____gal.

Time

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	091-21	W/CV	40mL	N	Y	HCL	8015/8020	N	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

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

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

LABORATORY NO.: 12368
CLIENT: Weiss Associates
CLIENT JOB NO.: 4-417-01

DATE RECEIVED: 09/20/91
DATE REPORTED: 09/27/91

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
12368- 1	091.01	09/19/91	09/26/91
12368- 2	091.03	09/19/91	09/26/91
12368- 3	091.04	09/19/91	09/26/91
12368- 4	091.05	09/19/91	09/26/91
12368- 5	091.06	09/19/91	09/26/91
12368- 6	091.07	09/19/91	09/26/91
12368- 7	091.08	09/19/91	09/26/91
12368- 8	091.21	09/19/91	09/26/91

Laboratory Number:	12368 1	12368 2 well 3	12368 3 well 4	12368 4 well 5	12368 5 well 6
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	150	73	16000	ND<50	3100
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	7.1	1.2	7400	ND<0.5	1600
TOLUENE:	ND<0.5	ND<0.5	90	ND<0.5	8.3
ETHYL BENZENE:	2.3	ND<0.5	110	ND<0.5	73
XYLENES:	3.0	ND<0.5	460	ND<0.5	8.0

Laboratory Number:	12368 6 well 7	12368 7 well 8	12368 8 Blank
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)		
OIL AND GREASE:	NA	NA	NA
TPH/GASOLINE RANGE:	26000	ND<50	ND<50
TPH/DIESEL RANGE:	NA	NA	NA
BENZENE:	4600	ND<0.5	ND<0.5
TOLUENE:	330	ND<0.5	ND<0.5
ETHYL BENZENE:	970	ND<0.5	ND<0.5
XYLENES:	2400	ND<0.5	ND<0.5

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: 12368

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

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

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

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/l
Standard Reference: 07/23/91

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/l
Standard Reference: 06/13/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	07/23/91	200ng	101/98	2.8	59-121
Benzene	06/13/91	200ng	85/89	4.6	70-125
Toluene	06/13/91	200ng	92/94	2.7	74-116
Ethyl Benzene	06/13/91	200ng	93/97	4.2	75-120
Total Xylene	06/13/91	600ng	99/102	2.8	75-119

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

10560 Chain of Custody Record

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

Chevron Facility Number 9-0076 (Oakland II)
Facility Address 4265 FOOTHILL BOULEVARD
Consultant Project Number 4-417-01
Consultant Name Weiss Associates
Address 5500 Shellmound St, Emeryville
Project Contact (Name) Mariette Shin
(Phone) 415-547-5420 (Fax Number) 415-547-5043

Chevron Contact (Name) Nancy Vukelich
(Phone) 415-842-9581
Laboratory Name Superior Analytical
Laboratory Release Number 4508080
Samples Collected by (Name) Dave Charles / C. Christensen
Collection Date 9/19/91
Signature

Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: 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
091.01	2	W	G	1055	HCl	Y	X							
091.03				1015										
091.04				1251										
091.05				1132										
091.06				1007										
091.07				1204										
091.08				1117										
091.21				800										

Please initial: KK
Samples Stored in ice. ✓
Appropriate containers. ✓
Samples preserved. ✓
VOA's without headspace. ✓
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	WEISS ASSOC	9.19.91 1500		Weiss	9/20/91 8:30
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	Weiss	9/20/91 10:53		X519 Express-IT	9/20/91 1052
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
	X519 Express-IT	9/20/91 1124	X Onyx A Nixon		9/20/91 1:50pm

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

COC-1.DWG/1 80/HCH

EXPRESS IT 9/20/91 1340

9.19.91 → 9.20.91