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

91 MAY -3 PM 12:42

April 30, 1991

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

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

Dear Mr. Wistar:

Enclosed we are forwarding the Quarterly Groundwater Monitoring Report dated April 16, 1991, conducted by our consultant Weiss Associates for the above referenced site. As indicated in the report, groundwater samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and BTEX. Benzene concentrations were detected at levels ranging from ND to 26,000 ppb.

For your information, the abandonment of monitor wells B-6 and B-7, and the installation of a new concrete vault for future extraction well B is scheduled for May 8, 1991. A work plan proposing an additional well replacing well B-6 is currently being prepared and will be forwarded to your office for your review.

Installation of the remediation system has been held up as we have made a modification to the treatment methodology and have reentered into the permitting process, as required. The original system design was proposing to utilize an air stripper with vapor carbon polishing. A comparison analysis was conducted to assess the efficiency and effectiveness between an aqueous carbon system and an air stripper with vapor carbon system. The analysis assesssed that an aqueous carbon system would be most efficient and effective during the life cycle of the system at this site.

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

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

Nancy Vukelich
Environmental Engineer

Enclosures

cc: Mr. Rich Hiett, RWQCB-Bay Area
Ms. B.C. Brummett-Owen
File (9-1026Q2 Listing)

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

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

April 16, 1991

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

APR 24 '91 T.E.H.

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

Dear Ms. Vukelich:

As you requested, Weiss Associates (WA) is providing this Ground Water Monitoring Report for the subject site (Figure 1). WA sampled the ground water monitoring wells (Figure 2) on March 27, 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 electronic sounder (Table 1). We also checked the wells for floating hydrocarbons or sheen. Less than 0.01 ft of floating hydrocarbons were detected in monitoring well B-3, and a sheen was detected in well B.

WA collected ground water samples for analysis after purging at least 3 well-casing volumes of ground water from each well. Each sample was decanted from a 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 ANALYTICAL 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 flow direction and ground water elevation contours are shown on Figure 2.

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

SCHEDULE

The Second Quarter 1991 ground water sampling is scheduled for May 9, 1991. We will submit a report presenting the field and analytical data by mid-June 1991.

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

Sincerely,
Weiss Associates

Mariette M. Shin
Staff Geologist

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

MMS/JWC:jg
E:\ALL\CHEV\400\418QMAP1.WP

Attachments: A - Water Sample Collection Records
B - Analytic Report and Chain-of-Custody Forms
C - Previous Ground Water Elevation Contour Maps

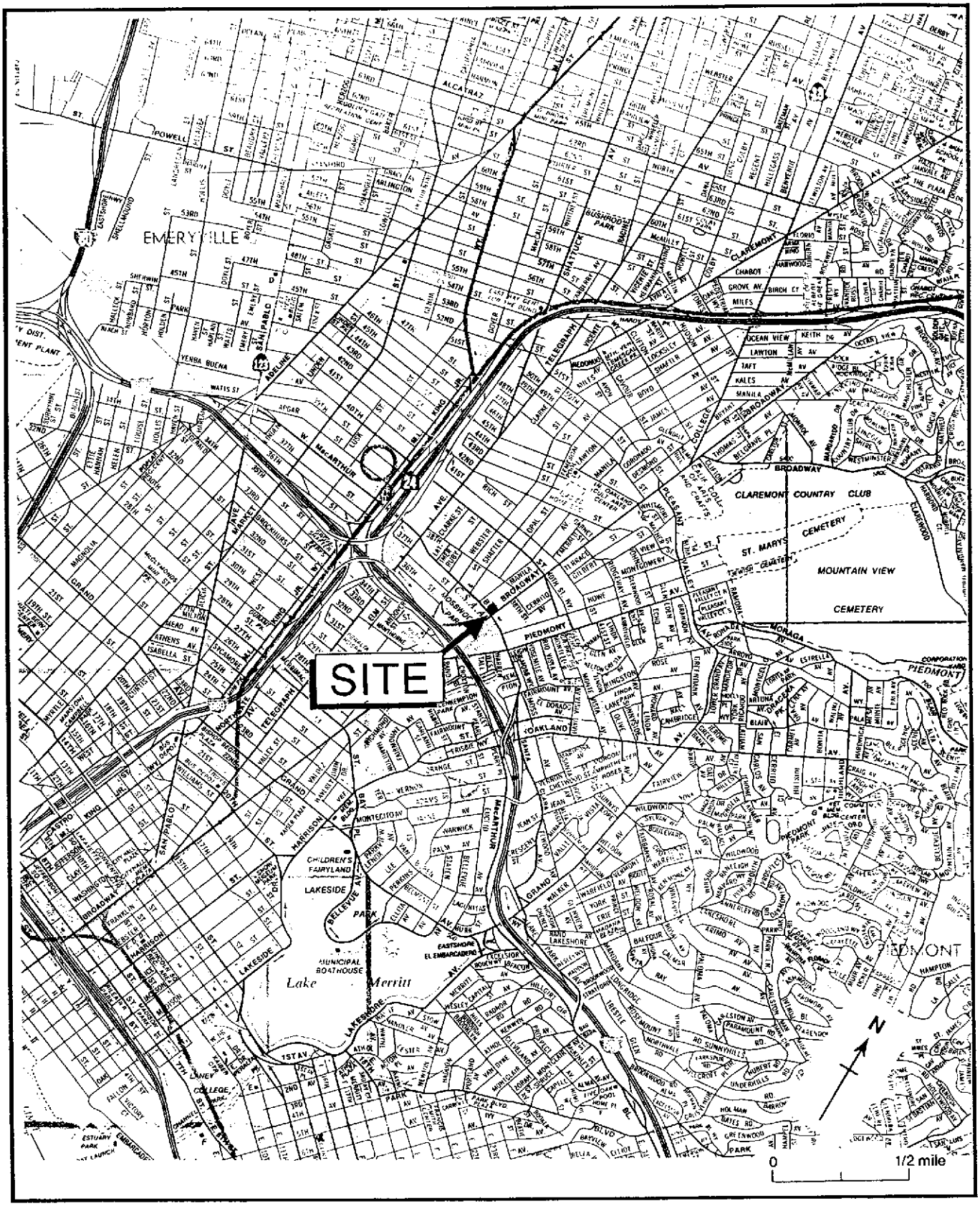

Figure 1. Site Location Map - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California

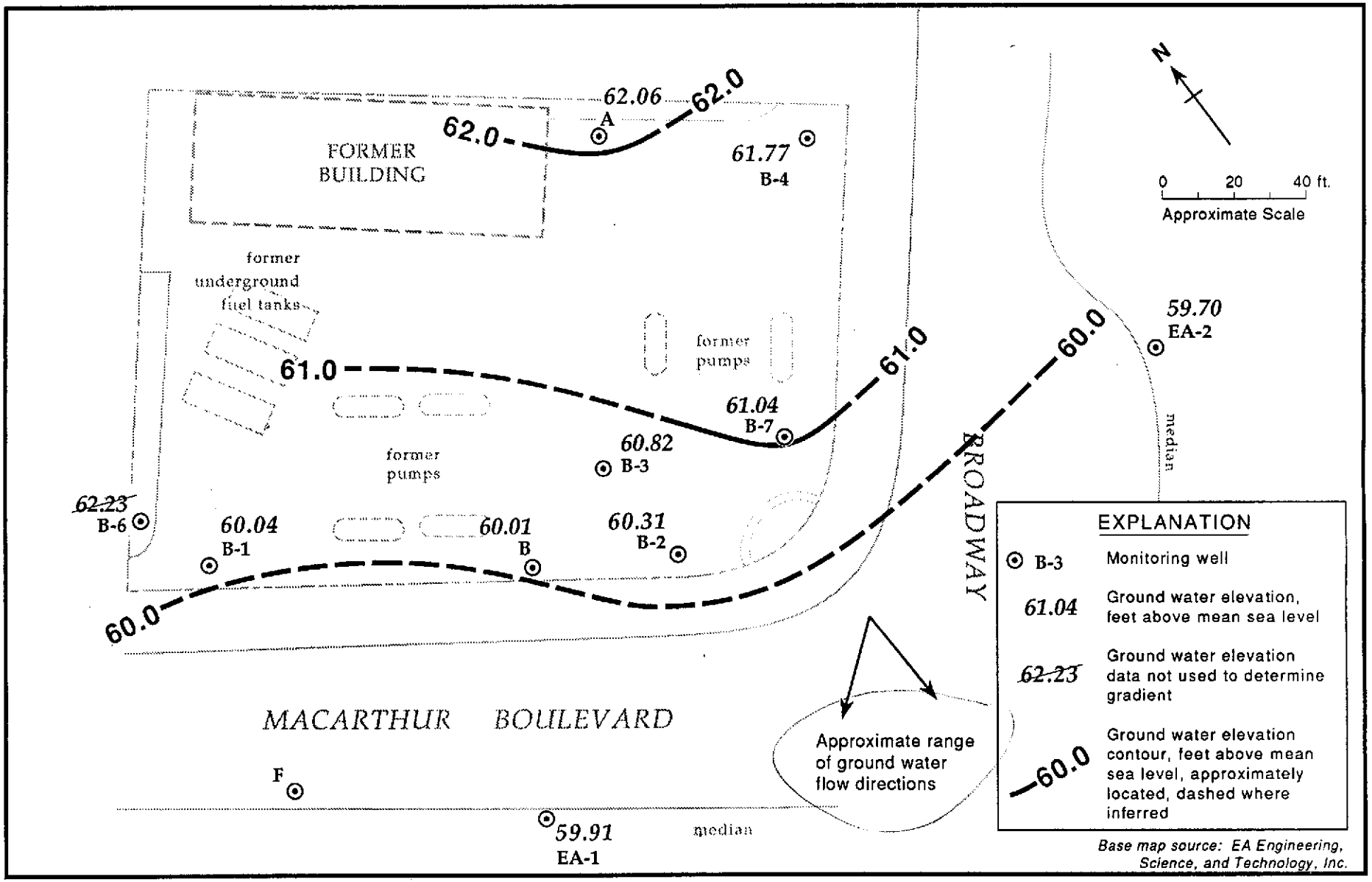

Figure 2. Monitoring Well Locations and Ground Water Contours - April 5, 1991 - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California

4/15/91

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

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons in Well (ft)	Ground Water Elevation (ft above msl)
A	05/10/89	75.28[a]	13.92		61.36
	08/09/89		15.62		59.66
	11/09/89		15.95		59.33
	02/08/90		14.73		60.55
	05/10/90		15.48		59.80
	08/09/90		15.66		59.62
	11/13/90		16.48		58.80
	04/05/91		13.22		62.06
B	05/10/89	73.39[a]	13.97	.20	59.58[b]
	08/09/89		15.69	.20	57.86[b]
	11/09/89		15.29	.08	58.16[b]
	02/08/90		14.46		58.93
	05/10/90		15.07		58.32
	08/09/90		15.12		58.27
	11/13/90		15.76		57.63
	04/05/91		13.38		60.01
B-1	05/10/89	71.77[a]	12.58		59.19
	08/09/89		14.09		57.68
	11/09/89		14.06		57.71
	02/08/90		12.65		59.12
	05/10/90		13.62		58.15
	08/09/90		13.87		57.90
	11/13/90		14.38		57.39
	04/05/91		11.73		60.04
B-2	05/10/89	74.51[a]	14.58		59.93
	08/09/89		16.06		58.45
	11/09/89		16.95		57.56
	02/08/90		15.56		58.95
	05/10/90		15.94		58.57
	08/09/90		15.97		58.54
	11/13/90		16.70		57.81
	04/05/91		14.20		60.31
B-3	05/10/89	74.12[a]	14.02		60.01
	08/09/89		15.38		58.74
	11/09/89		15.55	.05	58.61[b]
	02/08/90		14.68	<0.01	59.44[b]
	05/10/90		15.15	.02	58.99[b]
	08/09/90		15.27	<0.01	58.85[b]
	11/13/90		16.04	.06	58.13[b]
	04/05/91		13.30	<0.01	60.82[b]

-- Table 1 continues on next page --

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

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons in Well (ft)	Ground Water Elevation (ft above msl)
B-4	05/10/89	76.43[a]	14.93		61.50
	08/09/89		16.65		59.78
	11/09/89		16.99		59.44
	02/08/90		16.05		60.38
	05/10/90		16.49		59.94
	08/09/90		16.64		59.79
	11/13/90		17.42		59.01
	04/05/91		14.66		61.77
B-6	05/10/89	72.66[a]	12.11		60.55
	08/09/89		14.72		57.94
	11/09/89		13.85		58.81
	02/08/90		7.73		64.93
	05/10/90		[c]		
	08/09/90		14.51		58.15
	11/13/90		14.86		57.80
	04/05/91		10.43		62.33
B-7	05/10/89	75.40[a]	14.73		60.67
	08/09/89		16.36		59.04
	11/09/89		16.64		58.76
	02/08/90		15.69		59.71
	05/10/90		[c]		
	08/09/90		16.31		59.09
	11/13/90		17.09		58.31
	04/05/91		14.36		61.04
EA-1	05/10/89	73.94[a]	14.56		59.38
	08/09/89		16.09		57.85
	11/09/89		15.84		58.10
	02/08/90		15.05		58.89
	05/10/90		15.65		58.29
	08/09/90		15.67		58.27
	11/13/90		16.32		57.62
	04/05/91		14.03		59.91
EA-2	05/10/89	75.24[a]	15.95		59.29
	08/09/89		17.45		57.79
	11/09/89		17.41		57.83
	02/08/90		16.57		58.67
	05/10/90		17.12		58.12
	08/09/90		17.20		58.04
	11/13/90		17.88		57.36
	04/05/91		15.54		59.70

-- Table 1 continues on next page --

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

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons in Well (ft)	Ground Water Elevation (ft above msl)
F	05/10/89	72.01[a]	18.70		53.31
	08/09/89		19.03		52.98
	11/09/89		19.02		52.99
	02/08/90		18.70		53.31
	05/10/90		18.98		53.03
	08/09/90		18.95		53.06
	11/13/90		19.10		52.91
	04/05/91		---[c]		---

[a] = Top-of-Casing surveyed on 02/08/90

[b] = Ground water elevation adjusted for floating hydrocarbons in the well by the relation: Corrected ground water elevation = top-of-casing - depth to water + (0.8 x hydrocarbon thickness)

[c] Water level not recorded

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

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

-- Table 2 continues on next page --

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

Well ID	Date Sampled	Depth-to Water (ft)	Analytical Lab	TPH-G	B	E	T	X
				<----------parts per billion (µg/L) ---------->				
B-4	05-10-89	14.93	SAL	3,600	840	120	34	200
	08-09-89	16.65	SAL	<500	4,200	370	130	260
	08-09-89 (dup)	16.65	SAL	5,000	4,200	400	83	250
	11-09-89	16.99	SAL	14,000	6,000	530	70	300
	02-08-90	16.05	GTEL	12,000	5,400	460	130	320
	05-10-90	16.49	GTEL	16,000	7,400	530	120	350
	08-09-90	16.64	GTEL	21,000	7,000	550	100	320
	11-13-90	17.42	CEC	17,000	8,500	500	120	300
	03-27-91	14.66	SAL	14,000	7,700	610	75	210
B-6	05-09-89	12.11	SAL	26,000	120	250	110	1,300
	08-09-89	14.72	SAL	19,000	470	440	150	1,400
	11-09-89	13.85	SAL	13,000	70	36	36	440
	02-08-90	7.73	GTEL	2,900	16	10	5	58
	05-10-90 [c]	---	---	---	---	---	---	---
	08-09-90	14.51	GTEL	14,000	55	130	3	500
	11-13-90 [d]	14.86	---	---	---	---	---	---
	03-27-91 [d]	10.43	---	---	---	---	---	---
B-7	05-10-89	14.73	SAL	210,000	13,000	2,000	19,000	20,000
	08-09-89	16.36	SAL	672,000	8,700	2,700	17,000	30,000
	11-09-89	16.64	SAL	150,000	7,000	1,800	12,000	16,000
	02-08-90	15.69	GTEL	41,000	2,500	1,100	6,900	11,000
	05-10-90 [c]	---	---	---	---	---	---	---
	08-09-90	16.31	GTEL	50,000	1,100	640	3,900	7,200
	11-13-90 [d]	17.09	---	---	---	---	---	---
	03-27-91 [d]	14.36	---	---	---	---	---	---
EA-1	05-09-89	14.56	SAL	<500	<0.5	<0.5	<0.5	<0.5
	08-09-89	16.09	SAL	<500	<0.5	<0.5	<0.5	<0.5
	11-09-89	15.84	SAL	<500	<0.5	<0.5	<0.5	<0.5
	02-08-90	15.05	GTEL	<50	<0.3	<0.3	<0.3	<0.6
	05-10-90	15.65	GTEL	<50	1	<0.3	<0.3	<0.6
	08-09-90	15.67	GTEL	<50	<0.3	<0.3	<0.3	<0.6
	11-13-90	16.32	CEC	<50	<0.4	<0.3	<0.3	<0.4
	03-27-91	14.03	SAL	<50	0.7	<0.5	<0.5	<0.5
EA-2	05-09-89	15.95	SAL	760	<0.5	1.1	<0.5	<0.5
	08-09-89	17.45	SAL	<500	<0.5	<0.5	<0.5	<0.5
	11-09-89	17.41	SAL	<500	<0.5	<0.5	1	<0.5
	02-08-90	16.57	GTEL	190	<0.3	<0.3	<0.3	<0.6
	05-10-90	17.12	GTEL	<50	<0.3	<0.3	<0.3	<0.6
	08-09-90	17.20	GTEL	120	<0.3	<0.3	<0.3	<0.6
	11-13-90	17.88	CEC	160	<0.4	<0.3	1.0	<0.4
	03-27-91	15.54	SAL	110	<0.5	<0.5	<0.5	<0.5

-- Table 2 continues on next page --

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

Well ID	Date Sampled	Depth-to Water (ft)	Analytical Lab	TPH-G	B	E	T	X
				<----------parts per billion (µg/L) ---------->				
F	05-09-89	18.70	SAL	<500	<0.5	<0.5	0.6	1.0
	08-09-89 [e]	19.03	---	---	---	---	---	---
	11-09-89 [e]	19.02	---	---	---	---	---	---
	02-08-90	18.70	GTEL	<50	0.4	<0.3	0.3	<0.6
	05-10-90 [e]	18.98	---	---	---	---	---	---
	08-09-90 [e]	18.95	---	---	---	---	---	---
	11-13-90 [e]	19.10	---	---	---	---	---	---
	03-27-91	---	SAL	64	<0.5	<0.5	<0.5	1
Travel Blank	05-10-89		SAL	<500	<0.5	<0.5	<0.5	<0.5
	08-09-89		SAL	<500	<0.5	<0.5	<0.5	<0.5
	11-09-89		SAL	<500	<0.5	<0.5	<0.5	<0.5
	02-08-90		GTEL	<50	<0.3	<0.3	<0.3	<0.6
	05-10-90		GTEL	<50	<0.3	<0.3	<0.3	<0.6
	08-09-90		GTEL	<50	<0.3	<0.3	<0.3	<0.6
	11-13-90		CEC	<50	<0.4	<0.3	<0.3	<0.4
	03-27-91		SAL	<50	<0.5	<0.5	<0.5	<0.5
Bailer Blank	05-10-89		SAL	<500	<0.5	<0.5	<0.5	<0.5
	02-08-90		GTEL	<50	<0.3	<0.3	0.3	<0.6
	03-27-91		SAL	<50	<0.5	<0.5	<0.5	0.6
DHS MCLs				NE	1	680	100[f]	1,750

Abbreviations:

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

Analytical Laboratory:

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

Notes:

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

ATTACHMENT A

WATER SAMPLE COLLECTION RECORDS

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name A Date 3/27/91 Time of Sampling 1455
Job Name Clev. Oak. III Job Number 4-418-01 Initials TF
Sample Point Description M (M = Monitoring Well)
Location NEAR FRONT OF MOBILE TRAILER, ON SITE.

WELL DATA: Depth to Water 13.26 ft (static, pumping) @ 1110 Depth to Product — ft.
Product Thickness — Well Depth 20.0 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in
Initial Height of Water in Casing 6.82 ft. = volume 1.1 gal.
3 Casing Volumes to be Evacuated. Total to be evacuated 3.3 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 1.25" x 2' TEF Dedicated Yes (Y/N)
Other —

Evacuation Time: Stop 1343 1403 1452
Start 1339 1400 1449
Total Evacuation Time 4 min 3 min 3 min
Total Evacuated Prior to Sampling 3.3 gal.
Evacuation Rate 0.3 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling 19.27 ft. 1455 time
Evacuated Dry? Y After 2.0 gal. Time 1343
80% Recovery = —
% Recovery at Sample Time — Time —

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

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

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

SAMPLE: Color CLEAR - LT GRAY Odor VERY STRONG
Description of matter in sample: LITTLE SUSP SILT PARTICLES
Sampling Method: DECANT FROM DED TEFLON 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
3	031-A	w/cv	40ml	No	Yes	HCl	EPA 8015/8020	N	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name B-1 Date 3.27.91 Time of Sampling 14:30

Job Name Chevron Oak. III Job Number 4.418.01 Initials BB

Sample Point Description M (M = Monitoring Well)

Location WEST CORNER OF LOT, NEAR MacArthur DRIVEWAY ENTRANCE

WELL DATA: Depth to Water 11.88 ft (static) pumping @ 10:39 Depth to Product 0 ft.

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

Initial Height of Water in Casing 3.32 ft. = volume 0.54 gal.

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

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

Bailer# and type 1.25"x3' TEF. Dedicated ____ (Y/N)

Other #AP - bailer blank made w/ D.I. Water EXP. 1/22/93 - see Water sampling data sheet for bailer blank

Evacuation Time: Stop 13:24 14:08 14:29

Start 13:22 14:06 14:28

Total Evacation Time 5 min

Total Evacuated Prior to Sampling 1.6 gal.

Evacuation Rate 0.32 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 14.37 ft. 14:33 time

Evacuated Dry? NO After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

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

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

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

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number ____

Calibration: ____ 4.0 ____ 7.0 ____ 10.0

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

SAMPLE: Color Grey Odor Faint

Description of matter in sample: dirt particles / bits of organic matter

Sampling Method: decanted from teflon bailer # AP

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
3	031-B1	W/cv	40ml	No	Yes	HCl	EPA 8015/8020	N	SAL
1	031-23	"	"	"	"	"	"	Hold	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name B-2 Date 3-27-91 Time of Sampling 15:07

Job Name Chevron Oak. 111 Job Number 4.418.01 Initials BB

Sample Point Description M (M = Monitoring Well)

Location ON SITE, AT THE CORNER OF MacARTHUR & BROADWAY

WELL DATA: Depth to Water 14.17 ft (static) pumping @ 11:19 Depth to Product 0 ft.

Product Thickness — Well Depth 19 ft (spec) Well Depth — ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 4.83 ft. = volume 0.78 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 2.36 gal.

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

Bailer# and type 1.25"x3' TEF. Dedicated YES (Y/N)

Other —

Evacuation Time: Stop 1404 14:58 15:06

Start 1400 1456 1505

Total Evacation Time 7 min

Total Evacuated Prior to Sampling 2.4 gal.

Evacuation Rate 0.34 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 18.13 ft. 15:10 time

Evacuated Dry? NO After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

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

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

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

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number —

Calibration: — 4.0 — 7.0 — 10.0

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

SAMPLE: Color Clear/Slightly Cloudy Odor Faint

Description of matter in sample: dirt particles / bits of organic matter

Sampling Method: decanted from dedicated teflon bailer

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
3	031-B2	w/o	40ml	No	Yes	HCl	EPA 8015/8020	N	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

NOT SAMPLED DUE TO PRESENCE OF FREE PRODUCT.

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name B-3 Date 3/27/91 Time of Sampling ____

Job Name Chev. Oak. III Job Number 4-418-01 Initials BB

Sample Point Description M (M = Monitoring Well)

Location ON SITE, IN center of lot.

WELL DATA: Depth to Water 13.44 ft (static) pumping @ 10:55 Depth to Product — ft.

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

Initial Height of Water in Casing 5.46 ft. = volume 0.88 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 2.7 gal.

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

Bailer# and type FREE PROD. Dedicated NO (Y/N)

Other ____

Evacuation Time: Stop ____

Start ____

Total Evacation Time ____

Total Evacuated Prior to Sampling ____ gal.

Evacuation Rate ____ gal. per minute

Depth to Water during Evacuation ____ ft ____ time

Depth to Water at Sampling ____ ft. ____ time

Evacuated Dry? ____ After ____ gal. Time ____

80% Recovery = ____

% Recovery at Sample Time ____ Time ____

N/A

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

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

7.48 gal/ft^3

$V_{2"}$ casing = 0.163 gal/ft

$V_{3"}$ casing = 0.367 gal/ft

$V_{4"}$ casing = 0.653 gal/ft

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

$V_{6"}$ casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number ____

Calibration: ____ 4.0 ____ 7.0 ____ 10.0

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

N/A

SAMPLE: Color NOT SAMPLED DUE TO FREE PROD. 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~~	~~B-3-032691~~	~~V~~	~~40~~	~~N~~	~~Y~~	~~HCl~~	~~EPA 8015/8020~~	~~NM~~	BB

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name B-4 Date 3/27/91 Time of Sampling 1435

Job Name Chev. Oak. III Job Number 4-418-01 Initials TF

Sample Point Description M (M = Monitoring Well)

Location NE Corner of Lot, near driveway

WELL DATA: Depth to Water 14.93 ft (static) pumping @ 11:19 Depth to Product — ft.

Product Thickness — Well Depth 19.37 ft (spec) Well Depth — ft (sounded) Well Diameter 2 in

Initial Height of Water in Casing 4.44 ft. = volume 0.72 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 2.2 gal.

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

Bailer# and type 1.25" x 2' Tef. Dedicated Yes (Y/N)

Other —

Evacuation Time: Stop ~~1313~~ 1358 1431

Start ~~1339~~ 1351 1429

Total Evacation Time 11 min

Total Evacuated Prior to Sampling 2.2 gal.

Evacuation Rate 0.2 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 18.41 ft. 1435 time

Evacuated Dry? Y After 2.0 gal. Time ~~13~~58

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 CLR - LT GRAY Odor ~~STRONG~~ STRONG

Description of matter in sample: SOME SUSP PARTICLES

Sampling Method: DECANT FROM DED TEFLON 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
3	031-B4	w/a	40ml	No	Yes	HCl	EPA 8015/8020	N	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name EA-1 Date 3-27-91 Time of Sampling 1135

Job Name CHEV OAK III Job Number 4-418-01 Initials TF

Sample Point Description M (M = Monitoring Well)

Location MEDIAN — MACARTHUR BLVD

WELL DATA: Depth to Water 13.85 ft (static, pumping) @ 1002 Depth to Product — ft.

Product Thickness — Well Depth 30.2 ft (spec) Well Depth — ft(sounded) Well Diameter 4 in

Initial Height of Water in Casing 16.3 ft. = volume 10.6 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated ~~31.8~~ 34 gal. TF

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

Bailer# and type PVC 3½"x36" Dedicated Y (Y/N)

Other —

Evacuation Time: Stop 1130

Start 1056

Total Evacation Time 34

Total Evacuated Prior to Sampling 32 gal.

Evacuation Rate 0.9 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 13.89 ft. 1135 time

Evacuated Dry? N 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 LT BROWN Odor NONE

Description of matter in sample: SUSP SILT

Sampling Method: DED BLR SAMP 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
3	031-EA1	W/CV	40mL	N	Y	HCl	8015/8020	N	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name EA-2 Date 3/27/91 Time of Sampling 1310

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

Sample Point Description M

Location N Median, On Broadway (M = Monitoring Well)

WELL DATA: Depth to Water 15.42 ft (static) pumping @ 10:07 Depth to Product — ft.

Product Thickness — Well Depth 30.1 ft (spec) Well Depth — ft(sounded) Well Diameter 4 in

Initial Height of Water in Casing 14.68 ft. = volume 9.58 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 28.7 gal.

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

Bailer# and type 3'x3" PVC Dedicated Yes (Y/N)

Other —

Evacuation Time: Stop 1305

Start 1235

Total Evacation Time 30min

Total Evacuated Prior to Sampling 29 TF gal.

Evacuation Rate 0.9 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 22.95 ft. 1312 time

Evacuated Dry? N 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 LT GRAY Odor NONE

Description of matter in sample: TR SUSP SILT

Sampling Method: DED BLR SAMP 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
3	031-EA2	W/CW	40ml	No	Yes	HCl	EPA 8015/8020	N	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name F Date 3-27-91 Time of Sampling 1150
Job Name CHEV OAK III Job Number 4-418-01 Initials TF
Sample Point Description M (M = Monitoring Well)
Location LEFT LANE, MACARTHUR BLVD

WELL DATA: Depth to Water 15.90 ft (static) pumping) @ 956 Depth to Product — ft.
Product Thickness — Well Depth 19.8 ft(spec) Well Depth — ft(sounded) Well Diameter 2 in
Initial Height of Water in Casing 3.9 ft. = volume 0.6 gal.
3 Casing Volumes to be Evacuated. Total to be evacuated 1.8 gal.

EVACUATION METHOD: #AL Pump # and type — Hose # and type —
Bailer# and type TEF 1½"x 36" Dedicated N (Y/N)
Other —

Evacuation Time: Stop 1032 1054 1148
Start 1027 1052 1145
Total Evacuation Time 1.0gal 0.4gal 0.4gal 10min
Total Evacuated Prior to Sampling 1.8 gal.
Evacuation Rate 0.2 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling 19.65 ft. 1150 time
Evacuated Dry? Y After 1.0 gal. Time 1032
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 DK GRAY Odor NONE
Description of matter in sample: DECANT FROM TEFLON BLR #AL SILT SETTLED TO VOA BOTTOM
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
3	031-F	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:

Travel Blanks

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name TRAVEL BLANKS Date 3/27/91 Time of Sampling 12:45

Job Name CHEVRON OAKLAND II Job Number 4-418-01 Initials BB

Sample Point Description _____ (M = Monitoring Well)

Location _____

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

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

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

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

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

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

Other _____

Evacuation Time: Stop _____ _____ _____

Start _____ _____ _____

Total Evacation Time _____

Total Evacuated Prior to Sampling _____ gal.

Evacuation Rate _____ gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling _____ ft. _____ time

Evacuated Dry? _____ After _____ gal. Time _____

80% Recovery = _____

% Recovery at Sample Time _____ Time _____

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

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

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

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

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

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

SAMPLE: Color _____ 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
3	031-21	W/CV	40ml	No	Yes	HCl	EPA8015/8020	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:

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

WEISS ASSOCIATES

WATER SAMPLING DATA (WELL B-1)

Well Name BAILER BLANK Date 3/27/91 Time of Sampling 14:15

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

Sample Point Description _____ (M = Monitoring Well)

Location _____

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

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

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

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

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

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

Other _____

Evacuation Time: Stop _____

Start _____

Total Evacation Time _____

Total Evacuated Prior to Sampling _____ gal.

Evacuation Rate _____ gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling _____ ft. _____ time

Evacuated Dry? _____ After _____ gal. Time _____

80% Recovery = _____

% Recovery at Sample Time _____ Time _____

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

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

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

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

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

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

SAMPLE: Color CLEAR Odor NONE

Description of matter in sample: NONE

Sampling Method: DECANTED FROM TEFLON BAILER ~~#AP~~ D.I. Water EXP. 1-22-93

Sample Port: Rate — gpm Totalizer _____ gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
1	031-23	W/CV	40ml	No	Yes	HCl	EPA 8015/8020	Hold	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name TRAILER BLANK (WELL P) Date 3-27-91 Time of Sampling 1015

Job Name CHEV OAK III Job Number 4-418-01 Initials TF

Sample Point Description _____ (M = Monitoring Well)

Location _____

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

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

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

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

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

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

Other _____

Evacuation Time: Stop _____ _____ _____

Start _____ _____ _____

Total Evacation Time _____

Total Evacuated Prior to Sampling _____ gal.

Evacuation Rate _____ gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling _____ ft. _____ time

Evacuated Dry? _____ After _____ gal. Time _____

80% Recovery = _____

% Recovery at Sample Time _____ Time _____

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

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

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

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

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

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

SAMPLE: Color CLEAR Odor NONE

Description of matter in sample: NONE

Sampling Method: DECANT FROM TEFLON BLR #AL

Sample Port: Rate — gpm Totalizer — gal. ARROWHEAD EXP 1-22-93

Time — 1A 07:22

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5] (BB)	LAB
3	031-22	WCV	40mL	N	Y	HCl	8015/8020	HOLD	SAL

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

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

ATTACHMENT B

ANALYTIC REPORT AND CHAIN-OF-CUSTODY FORMS

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

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 11671
CLIENT: Weiss Associates
CLIENT JOB NO.: 4-418.01

DATE RECEIVED: 03/28/91
DATE REPORTED: 04/04/91

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
11671- 1	031-A	03/27/91	04/02/91
11671- 2	031-B2	03/27/91	04/02/91
11671- 3	031-B4	03/27/91	04/02/91
11671- 4	031-B1	03/27/91	04/02/91
11671- 5	031-EA1	03/27/91	04/02/91
11671- 6	031-EA2	03/27/91	04/02/91
11671- 7	031-F	03/27/91	04/02/91
11671- 8	031-21	03/27/91	04/02/91
11671- 9	031-22	03/27/91	04/02/91
11671-10	031-23	03/27/91	04/02/91

Laboratory Number:	11671 1	11671 2	11671 3	11671 4	11671 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	8000	160000	14000	18000	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	660	26000	7700	580	0.7
TOLUENE:	ND<5	3200	75	92	ND<0.5
ETHYL BENZENE:	110	2600	610	94	ND<0.5
XYLENES:	250	15000	210	770	ND<0.5

Laboratory Number:	11671 6	11671 7	11671 8	11671 9	11671 10
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	110	64	ND<50	ND<50	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
XYLENES:	ND<0.5	1	ND<0.5	1	0.6

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

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: 11671

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

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

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

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

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/l
Standard Reference: 01/28/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	08/24/90	200ng	85/85	0.0	63-111
Benzene	01/28/91	200ng	92/91	0.5	72-119
Toluene	01/28/91	200ng	95/93	1.6	70-116
Ethyl Benzene	01/28/91	200ng	99/98	0.5	73-119
Total Xylene	01/28/91	600ng	100/99	0.7	71-118

Richard Srna, Ph.D.
Laboratory Director

SF # 11671

Chain-of-Custody-Record

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

Chevron Facility Number 9-1026
Facility Address 3701 BROADWAY OAKLAND
Consultant Project Number 4-418-01
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 4950430
Samples Collected by (Name) TOM FOJUT / BRIAN BUSCH
Collection Date 3-27-91
Signature TomFojut

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
031-A	3	W	G	1455	HCl	Y	X												
031-B2	3	W	G	1507	HCl	Y	X												
031-B4	3	W	G	1435	HCl	Y	X												
031-B1	3	W	G	1430	HCl	Y	X												
031-EA1	3	W	G	1135	HCl	Y	X												
031-EA2	3	W	G	1310	HCl	Y	X												
031-F	3	W	G	1150	HCl	Y	X												
031-21	3	W	G	0830	HCl	Y	X												
031-22	3	W	G	1015	HCl	Y	X												Hold pending analytical results
031-23	1	W	G	1315	HCl	Y	X												Hold pending analytical results

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
TomFojut	WEISS	3/28 16:25	Mariette Shin	Weiss Assoc	3/28 16:25
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Pearl Candy	Weiss Assoc	3/28/91 8:11	WEISS	EXD-V	3-28-91 8:11
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
	ECS	3-28-91 83	Cecilia G. Jorgensen		3-28-91 9:30am

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

COC-1.DWG/11 90/HCH

ATTACHMENT C

PREVIOUS GROUND WATER ELEVATION CONTOUR MAPS

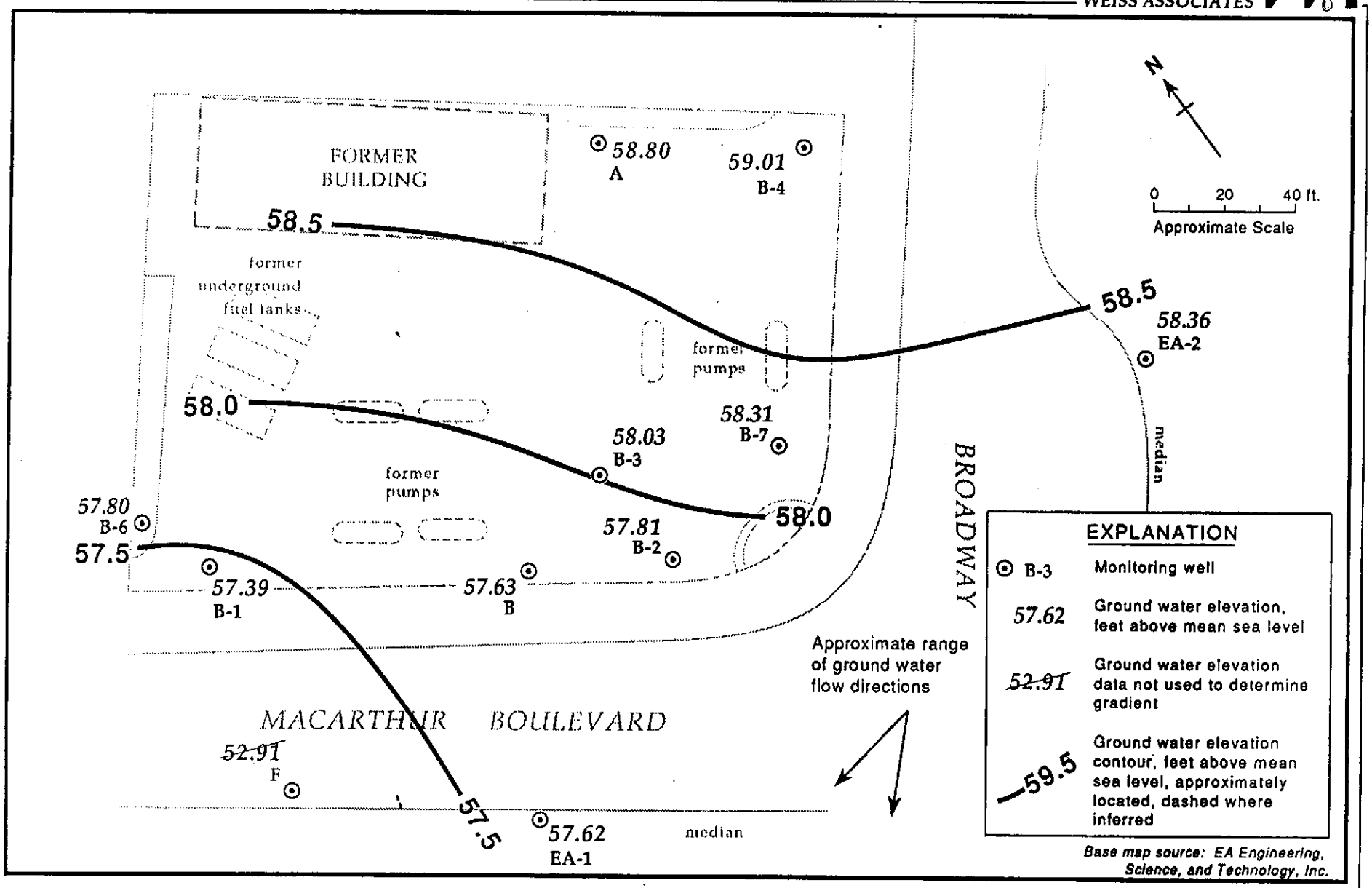

Figure 2. Monitoring Well Locations and Ground Water Contours - November 13, 1990 - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California

12/26/90

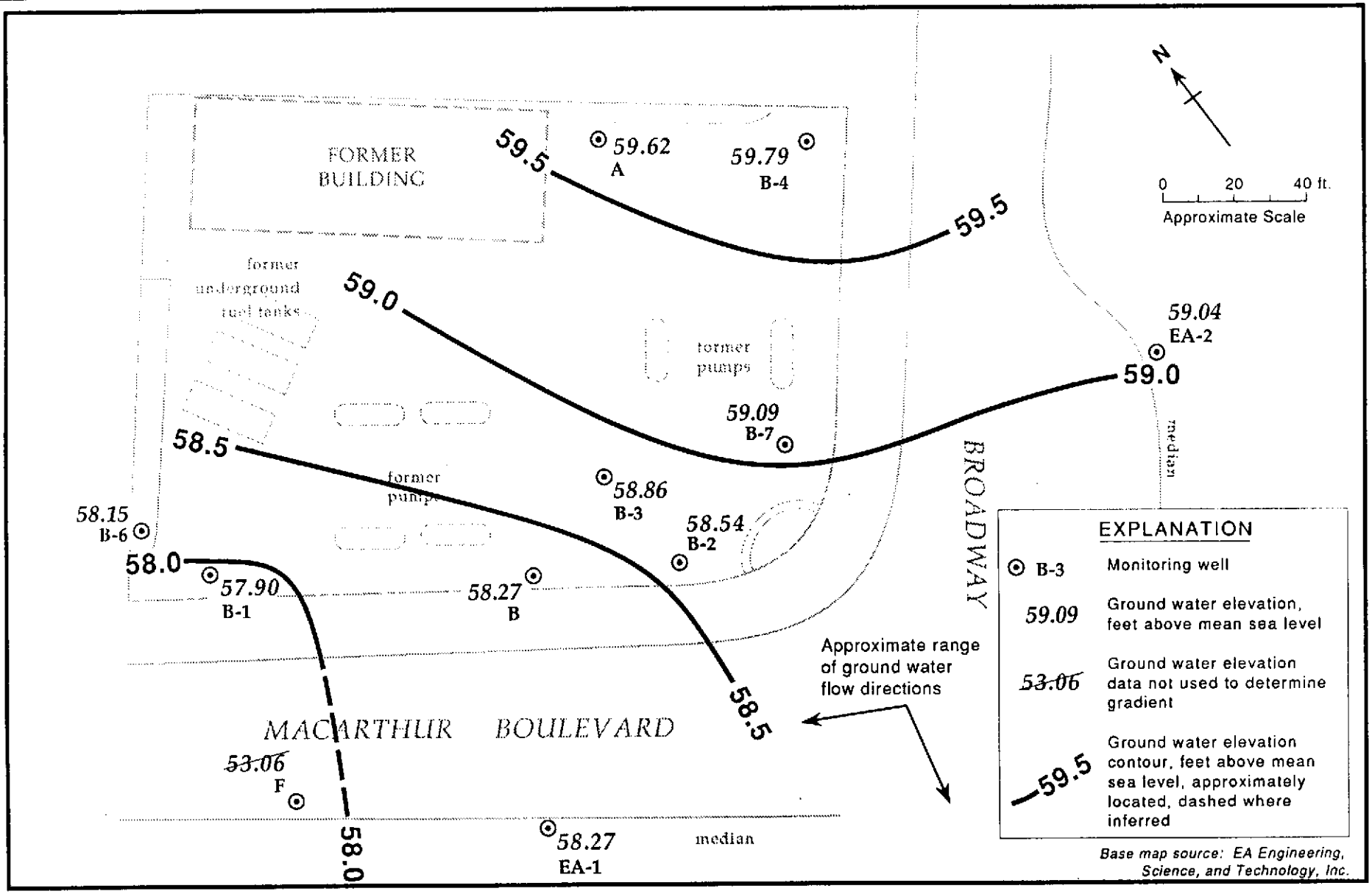

Figure 2. Monitoring Well Locations and Ground Water Contours - August 9, 1990 - Former Chevron Service Station #91026, 3701 Broadway, Oakland, California

9/17/90

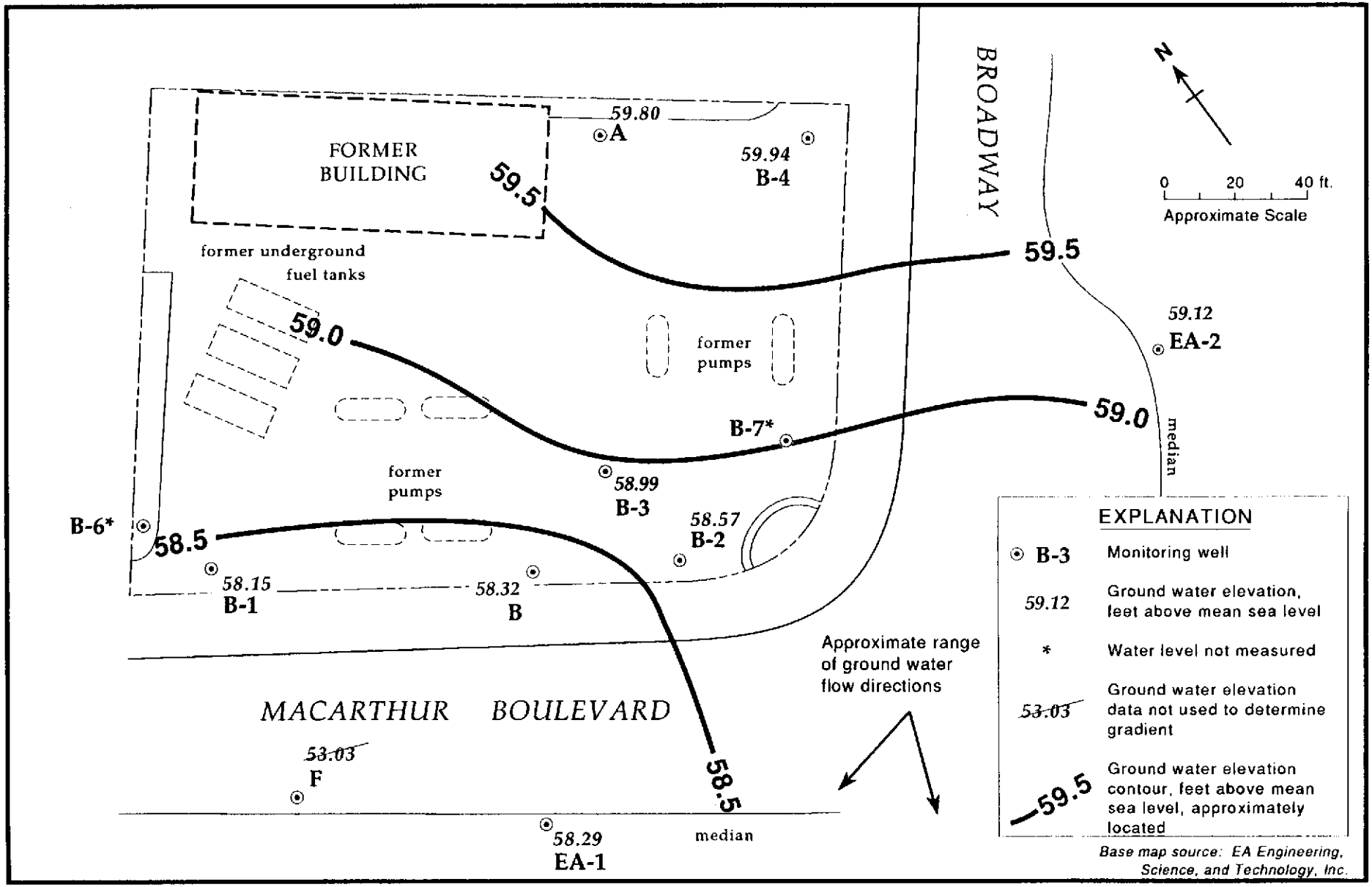

Figure 2. Monitoring Well Locations and Ground Water Contours - May 10, 1990 - Former Chevron Service Station #91026, 3701 Broadway, Oakland, California

6/26/90

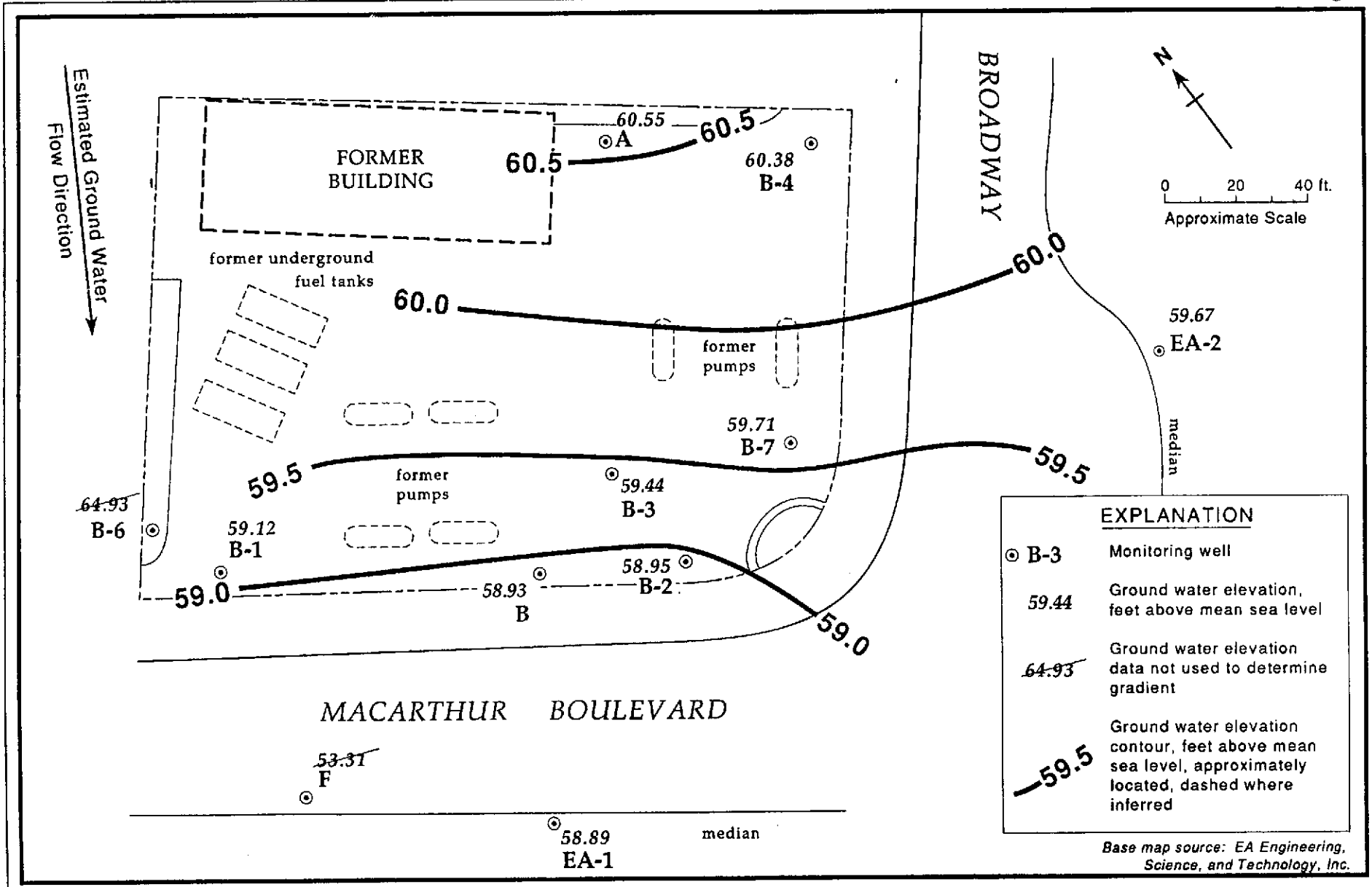

Figure 2. Monitoring Well Locations and Ground Water Contours - February 8, 1990 - Former Chevron Service Station #91026, 3701 Broadway, Oakland, California

3/12/90