WEISS ASSOCIATES
Geologic and Environmental Services
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5500 Shellmound Street, Emeryville, CA 94608

June 4, 1991

Paul Smith
Alameda County Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621-1426

Re: Shell Service Station
WIC #204-6001-0109
29 Wildwood Avenue
Piedmont, California 94610
WA Job #81-463-01

Dear Mr. Smith:

This letter describes Weiss Associates' (WA) second quarter 1991 activities at the Shell service station referenced above (Figure 1.) This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 265.d. Included below are:

- Descriptions and results of activities performed to date in the second quarter 1991, and
- Proposed work for the remainder of the second quarter 1991 and the third quarter 1991.

Proposed ground water sampling frequency modifications, which are on hold pending approval of the Alameda County Department of Environmental Health, are presented in Table 1.

SECOND QUARTER 1991 ACTIVITIES

During this quarter, WA:

- Collected ground water samples from six wells,
- Measured ground water depths in the wells and determined ground water elevations and flow direction, and

- Analyzed the ground water samples for hydrocarbons and tabulated the analytic results.

These activities are described below.

Ground Water Sampling

On April 30, 1991, WA collected ground water samples from all six wells as part of the quarterly ground water monitoring program at Shell Service Station WIC #204-6001-0109 in Piedmont, California. Concentrations of the following compounds exceeded California Department of Health Services (DHS) maximum contaminant levels (MCLs) for drinking water:

- Benzene in ground water samples from monitoring wells MW-2 and MW-3 (Figure 2),
- Tetrachloroethene (PCE) in samples from offsite wells MW-4 and MW-5, and
- Trichloroethene (TCE) and trans-1,2-dichloroethene (t-1,2-DCE) in the sample from offsite well MW-5.

Sampling Personnel: WA Environmental Technician Brian Busch

Monitoring Wells Sampled: MW-1 through MW-5 and E-4

Method of Purging Wells:	Wells
• Steam-cleaned PVC bailer	E-4
• Dedicated PVC bailers	MW-1 through MW-5

Volume of Water Purged Prior to Sampling:

- Wells MW-1 through MW-5 were purged of four well-casing volumes, about 14 to 31 gallons each.
- **Well E-4 was purged dry; water level was allowed to recover for at least two hours prior to sampling.**

Method of Collecting Ground Water Samples: Wells

- Drawn through the sampling ports on the sides of dedicated PVC bailers — MW-1 through MW-5
- Decanted from a steam-cleaned PVC bailer — E-4

Methods 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:

- National Environmental Testing (NET) Pacific, Inc., Santa Rosa, California, and were received on May 1, 1991

Quality Assurance/Quality Control:

- A travel blank was submitted for analysis.

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

Ground Water Elevations and Flow Direction

- The depth to water was measured in all wells on April 30, 1991. Ground water elevations increased by 0.5 ft from the previous quarter.
- Ground water flows west-northwestward to southwestward, which is consistent with ground water flow pattern during the past year.
- The potentiometric surface of flowing artesian well E-4 was greater than 4.5 ft above the top-of-casing in July 1989. This well is screened in a deeper water-bearing zone than wells MW-1 through MW-5.

Depth to water measurements and ground water elevations are presented in Table 2. Ground water elevation contours are plotted on Figure 2. Ground water elevation contour maps for the four previous quarters are included in Attachment C.

Chemical Analyses

The Ground Water Samples were Analyzed for:	Wells
• Total petroleum hydrocarbons as gasoline (TPH-G) by Modified EPA Method 8015, gas chromatography with flame ionization detection	all wells
• Benzene, ethylbenzene, toluene and xylenes (BETX) by EPA Method 602, gas chromotography with photo-ionization	all wells
• Halogenated volatile organic compounds (HVOCs) by EPA Method 601, gas chromatography with electrolytic conductivity detection	MW-4, MW-5, and E-4

The laboratory analyzed the samples on May 3 and 4, 1991. The results are presented in Table 3 and the analytic reports are included in Attachment B.

Discussion of Ground Water Analytic Results for this Quarter:

- Concentrations of the following compounds exceeded DHS MCLs for drinking water:
  - Benzene in ground water samples from monitoring wells MW-2 and MW-3,
  - PCE in samples from offsite wells MW-4 and MW-5, and
  - TCE and t-1,2-DCE in the sample from offsite well MW-5.
- Benzene, ethylbenzene, and xylenes were detected for the first time in the sample from well MW-1.
- No TPH-G have been detected in well E-4 for four consecutive quarters and no BETX have been detected in wells MW-4 and E-4 for six consecutive quarters.

ANTICIPATED WORK FOR THIRD QUARTER 1991

During the remainder of the second quarter 1991 and the third quarter 1991, on behalf of Shell Oil, WA plans to:

- Continue quarterly monitoring of ground water at this site,
- Analyze samples from all six wells for HVOCs by EPA Method 601 to determine whether the HVOCs detected this quarter in the two offsite wells originate from an offsite source, and
- Prepare a quarterly status report presenting all data generated during the previous quarter including water sampling results and analysis.

We trust that this submittal satisfies your requirements. Please call if you have any questions.

Sincerely,
Weiss Associates

Thomas Fojut
Staff Geologist

Joseph P. Theisen, R.G.
Senior Project Hydrogeologist

TF/JPT:jg

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Attachments: Figures
Tables
A - Water Sample Collection Records
B - Analytic Reports and Chain-of-Custody Form
C - Previous Ground Water Elevation Contour Maps

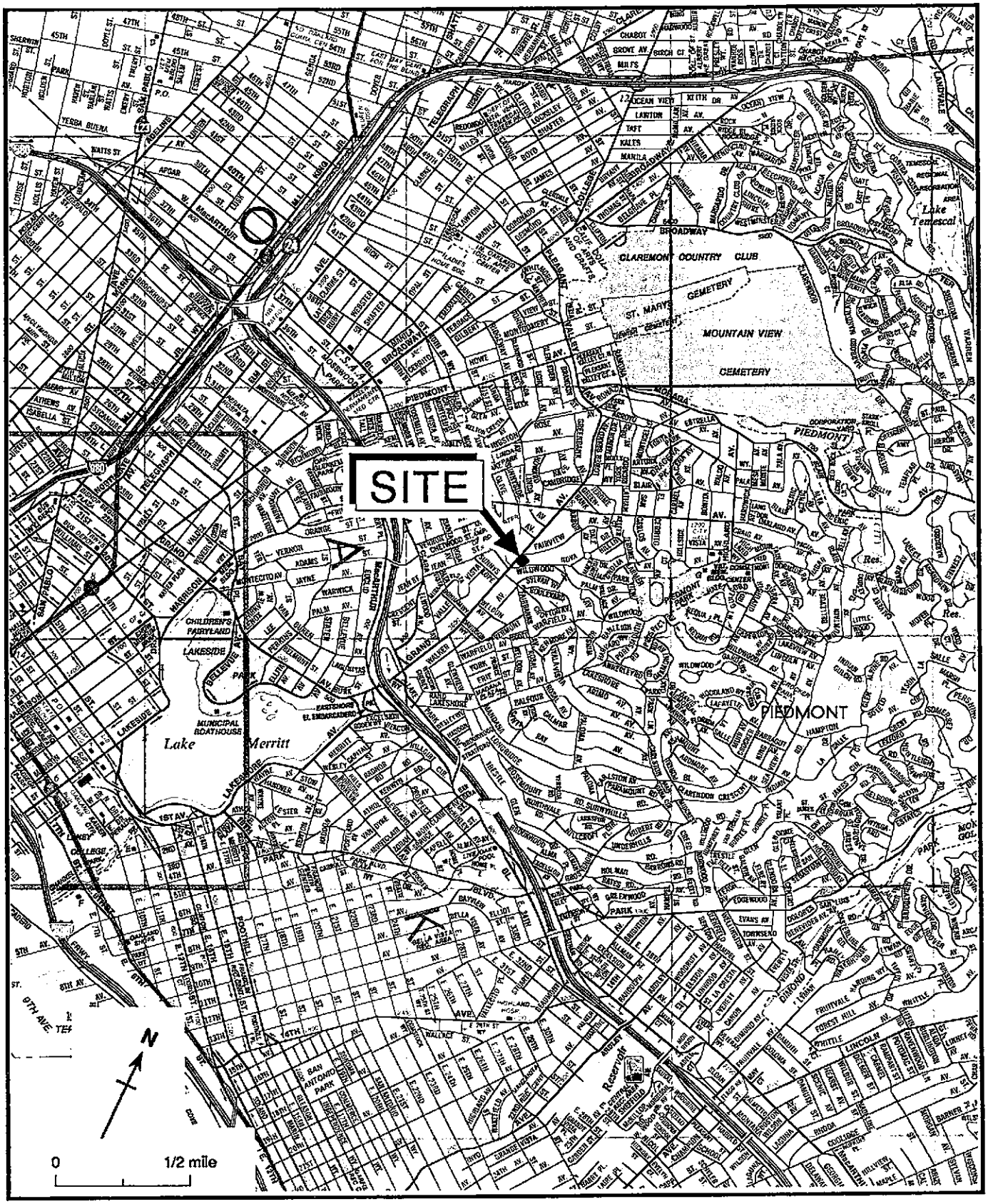

Figure 1. Site Location Map - Shell Service Station WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

6/6/90

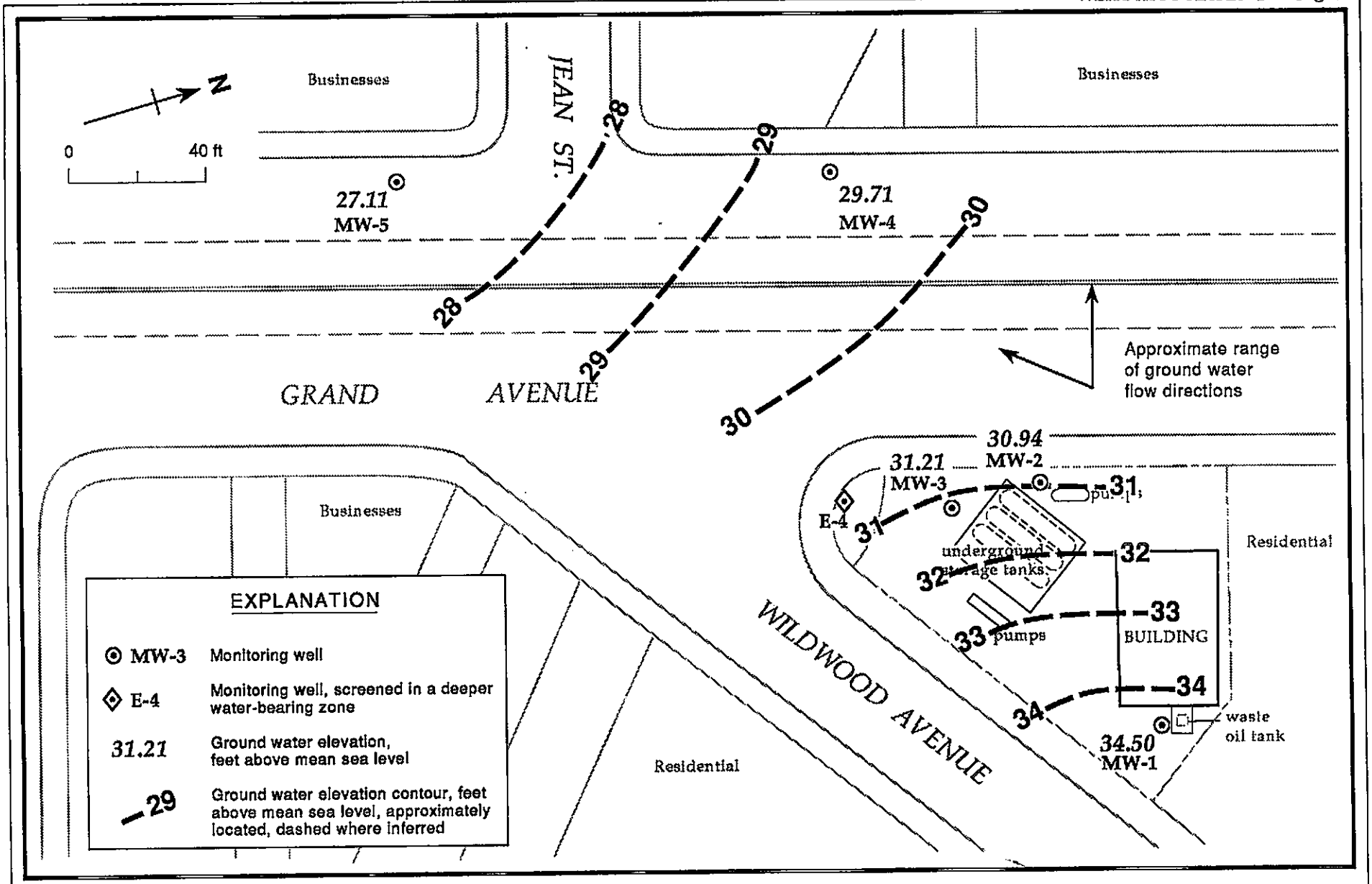

Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - April 30, 1991 - Shell Service Station, WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

6/3/91

Table 1. Proposed Modifications to Ground Water Sampling Schedule, Shell Service Station, WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

Well ID	Current Sampling Frequency	Recommended Future Sampling Frequency	Rationale for Recommended Sampling Frequency
MW-1	Quarterly	Annually	No hydrocarbons detected for five consecutive quarters; up-gradient well
MW-2	Quarterly	Semi-Annually	Low hydrocarbon concentrations detected for five consecutive quarters; source area well
MW-3	Quarterly	Semi-Annually	Stable hydrocarbon concentrations detected for five consecutive quarters; source area well
MW-4	Quarterly	Quarterly	Down-gradient monitoring well
MW-5	Quarterly	Quarterly	Down-gradient monitoring well
E-4	Quarterly	Semi-Annually	No verified hydrocarbons detected for five consecutive quarters; down-gradient well in a deeper water-bearing zone

TABLE 2. Ground Water Elevation Data, Shell Service Station WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground water Elevation (ft above msl)
MW-1	07/12/89	37.96	2.76	35.20
	01/30/90		3.10	34.86
	04/27/90		3.24	34.72
	07/31/90		4.26	33.70
	10/30/90		4.25	33.71
	01/31/91		3.66	34.30
	04/30/91		3.46	34.50
MW-2	07/12/89	34.89	3.66	31.23
	01/30/90		3.49	31.40
	04/27/90		3.79	31.10
	07/31/90		4.03	30.86
	10/30/90		4.21	30.68
	01/31/91		4.09	30.80
	04/30/91		3.95	30.94
MW-3	07/12/89	35.00	3.83	31.17
	01/30/90		3.24	31.76
	04/27/90		4.02	30.98
	07/31/90		4.31	30.69
	10/30/90		4.52	30.48
	01/31/91		4.33	30.67
	04/30/91		3.79	31.21
MW-4	01/30/90	33.73	4.50	29.23
	04/27/90		3.62	30.11
	07/31/90		4.19	29.54
	10/30/90		4.19	29.54
	01/31/91		4.49	29.24
	04/30/91		4.02	29.71
MW-5	01/30/90	31.38	7.12	24.26
	04/27/90		4.19	27.19
	07/31/90		4.09	27.29
	10/30/90		4.39	26.99
	01/31/91		4.49	26.89
	04/30/91		4.27	27.11
E-4	07/12/89	34.63	[a]	>39.13
	01/30/90		[b]	>34.63
	04/27/90		[b]	>34.63
	07/31/90		[b]	>34.63
	10/30/90		[b]	>34.63
	01/31/91		[b]	>34.63
	04/30/91		[b]	>34.63

[a] = Well E-4 is a flowing artesian well. The potentiometric surface was greater than 4.5 ft above ground surface.

[b] = Well E-4 potentiometric surface was higher than the top of well casing.

TABLE 3. Analytic Results for Ground Water, Shell Service Station WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	PCE	TCE	t-1,2-DCE
			<----------parts per million (mg/L)---------->							
MW-1	07/12/89[ab]	2.76	<0.050	<0.0005	<0.001	<0.001	<0.003	---	---	---
	01/30/90	3.10	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/27/90	3.24	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	07/31/90	4.26	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	10/30/90	4.25	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	01/31/91	3.66	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/30/91	3.46	<0.050	0.0008	0.0006	<0.0005	0.0012	---	---	---
MW-2	07/12/89[ab]	3.66	0.060	0.0027	<0.001	<0.001	<0.003	---	---	---
	01/30/90	3.49	<0.050	0.0066	0.00054	<0.0005	0.00093	---	---	---
	04/27/90	3.79	0.060	0.0021	<0.0005	<0.0005	<0.0005	---	---	---
	07/31/90	4.03	0.070	0.0015	<0.0005	<0.0005	<0.0005	---	---	---
	10/30/90	4.21	0.070	<0.0005	<0.0005	0.0007	0.0016	---	---	---
	01/31/91	4.09	0.080	<0.0005	0.0009	<0.0005	0.0019	---	---	---
	04/30/91	3.95	0.10	0.0059	0.0007	0.0006	0.0020	---	---	---
MW-3	07/12/89[ac]	3.83	3.9	0.38	0.099	0.041	0.030	---	---	---
	01/30/90	3.24	5.5	0.44	0.079	0.035	0.13	---	---	---
	04/27/90	4.02	4.5	0.31	0.037	0.026	0.11	---	---	---
	07/31/90	4.31	3.5	0.21	0.0084	0.017	0.062	---	---	---
	10/30/90	4.52	2.3	0.061	<0.0005	<0.0005	0.028	---	---	---
	01/31/91	4.33	4.1	0.30	0.019	0.020	0.081	---	---	---
	04/30/91	3.79	3.8	0.370	0.0086	0.019	0.060	---	---	---
MW-4	01/31/90	4.50	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/27/90	3.62	0.13[d]	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	07/31/90	4.19	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	10/30/90	4.19	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	01/31/91	4.49	0.050[d]	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/30/91	4.02	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	0.015	0.0041	0.0034
MW-5	01/31/90	7.12	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/27/90	4.19	0.21[d]	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	07/31/90	4.09	0.090	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	10/30/90	4.39	0.10	0.0008	0.0006	0.0007	0.0014	---	---	---
	01/31/91	4.49	0.080[d]	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/30/91	4.27	0.09	<0.0005	<0.0005	<0.0005	<0.0005	0.220	0.022	0.017
E-4	07/12/89[a]	e	<0.050	<0.0005	<0.001	<0.001	<0.003	---	---	---
	01/31/90	e	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/27/90	e	0.12[d]	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	07/31/90	e	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	10/30/90	e	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	01/31/91	e	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/30/91	e	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004	<0.0004	<0.0004

-- Table 3 continues on next page --

TABLE 3. Analytic Results for Ground Water, Shell Service Station WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	PCE	TCE	t-1,2-DCE
			<----------parts per million (mg/L)---------->							
Trip Blank	07/12/89[a]	NA	<0.050	<0.0005	<0.001	<0.001	<0.003	---	---	---
	01/31/90	NA	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/27/90	NA	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	07/31/90	NA	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	10/30/90	NA	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	01/31/91	NA	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	04/30/91	NA	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
Bailer Blank	04/27/90	NA	0.11[d]	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	01/31/91	NA	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
DHS MCLs			NE	0.001	0.680	0.10[f]	1.750	0.005	0.005	0.01

Abbreviations:

TPH-G = Total Petroleum Hydrocarbons as Gasoline by Modified EPA Method 8015
B = Benzene by EPA Method 602 or 8020
E = Ethylbenzene by EPA Method 602 or 8020
T = Toluene by EPA Method 602 or 8020
X = Xylenes by EPA Method 602 or 8020
PCE = Tetrachloroethene by EPA Method 601
TCE = Trichloroethene by EPA Method 601
t-1,2-DCE = trans-1,2-dichloroethene by EPA Method 601
NA = Not applicable
--- = Not analyzed for these compounds
NE = DHS MCL not established
DHS MCLs = California Department of Health Services maximum contaminant levels for drinking water
<n = Not detected at detection limit of n ppm

Notes:

[a] = Analyzed by International Technology Analytical Services, Inc., San Jose, California.
[b] = No volatile organic compounds detected above detection limits of 0.0005 to 0.010 ppm by EPA Method 624.
[c] = BETX detected at 0.41, 0.097, 0.036 and 0.30 ppm, respectively, by EPA Method 624.
[d] = Non-gasoline peak reported as TPH-G by Modified EPA Method 8015.
[e] = Artesian well; ground water elevation above top-of-casing elevation.
[f] = DHS Recommended Action Level for drinking water, MCL not established.

Analytical Laboratory:

National Environmental Testing Pacific, Inc., Santa Rosa, California

ATTACHMENT A

WATER SAMPLE COLLECTION RECORDS

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name MW-1 Date 4-30-91 Time of Sampling 14:21
Job Name Shell Piedmont Job Number 81-463-01 Initials BB
Sample Point Description M (M = Monitoring Well)
Location ON RT SIDE OF LUBE BAY

WELL DATA: Depth to Water 3.46 ft (static) pumping @ 11:45 Depth to Product — ft.
Product Thickness — Well Depth 15 ft (spec) Well Depth 13.20 ft (sounded) Well Diameter 4 in
Initial Height of Water in Casing 9.74 ft. = volume 6.36 gal.
4 Casing Volumes to be Evacuated. Total to be evacuated 25.5 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 3"x3' PVC Dedicated Yes (Y/N)
Other —

Evacuation Time: Stop 13:43 14:19 —
Start 13:30 14:15 —
Total Evacation Time 17 min.
Total Evacuated Prior to Sampling 25.5 gal.
Evacuation Rate 1.5 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling 7.02 ft. 14:22 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 Clear Odor NONE
Description of matter in sample: NONE
Sampling Method: Sampled from port on ded. PVC bailer.
Sample Port: Rate — gpm Totalizer — gal.
Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
3	041-01	W/cu	40ml	No	Yes	NONE	EPA 8015/8020	N	NET

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name MW-2 Date 4-30-91 Time of Sampling 16:38
Job Name Shell Piedmont Job Number 81-463-01 Initials BB
Sample Point Description M (M = Monitoring Well)
Location ONSITE, NEAR SELF SERVE PUMP ISLAND.

WELL DATA: Depth to Water 3.95 ft (static) pumping @ 11.56 Depth to Product — ft.
Product Thickness — Well Depth 12 ft (spec) Well Depth 11.59 ft (sounded) Well Diameter 4 in
Initial Height of Water in Casing 7.64 ft. = volume 4.98 gal.
4 Casing Volumes to be Evacuated. Total to be evacuated 20 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 3"x3' PVC Dedicated Yes (Y/N)
Other —

Evacuation Time: Stop 14:50 15:28 16:37
Start 14:47 15:25 16:35
Total Evacation Time 8
Total Evacuated Prior to Sampling 20 gal.
Evacuation Rate 2.5 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling 8.29 ft. 16:40 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 Odor NONE
Description of matter in sample: NONE
Sampling Method: Sampled from port in 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
3	041-02	W/W	40ml	No	Yes	NONE	EPA 8015/8020	N	NET

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name MW-3 Date 4-30-91 Time of Sampling 15:00
Job Name Shell Piedmont Job Number 81-463-01 Initials BB
Sample Point Description M (M = Monitoring Well)
Location IN MIDDLE OF LOT, NEAR LG. SHELL SIGN

WELL DATA: Depth to Water 3.79 ft (static) pumping @ 12:01 Depth to Product — ft.
Product Thickness — Well Depth 9 ft (spec) Well Depth 9.10 ft (sounded) Well Diameter 4 in
Initial Height of Water in Casing 5.31 ft. = volume 3.5 gal.
4 Casing Volumes to be Evacuated. Total to be evacuated 14 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 3"x3' PVC Dedicated Yes (Y/N)
Other —

Evacuation Time: Stop 13:54 14:57 —
Start 13:50 14:54 —
Total Evacation Time 7 min
Total Evacuated Prior to Sampling 14 gal.
Evacuation Rate 2 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling 5.94 ft. 15:00 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 Clear Odor Very Faint
Description of matter in sample: Some suspended silt particles
Sampling Method: (BB) Sampled from port in del. 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
3	041-03	W/W	40ml	No	Yes	NONE	EPA 8015/8020	N	NET

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

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name MW-4 Date 4-30-91 Time of Sampling 17:22

Job Name Shell Piedmont Job Number 81-463-01 Initials BB

Sample Point Description M (M = Monitoring Well)

Location OFF SITE, ACROSS STREET, IN FRONT OF BARBER SHOP.

WELL DATA: Depth to Water 4.02 ft (static) pumping @ 12:13 Depth to Product — ft.

Product Thickness — Well Depth 16 ft (spec) Well Depth 12.13 ft (sounded) Well Diameter 4 in

Initial Height of Water in Casing 8.11 ft. = volume 5.3 gal.

4 Casing Volumes to be Evacuated. Total to be evacuated 21.2 gal.

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

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

Other —

Evacuation Time: Stop 16:33 16:56 17:13

Start 16:30 16:52 17:10

Total Evacation Time 10 min

Total Evacuated Prior to Sampling 21.5 gal.

Evacuation Rate 2.15 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 8.11 ft. 17:24 time

Evacuated Dry? NO After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

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

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

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

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number —

Calibration: — 4.0 — 7.0 — 10.0

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

SAMPLE: Color Light Grey Odor NONE

Description of matter in sample: FINE SUSP. SILT particles

Sampling Method: Sampled From port on ded. PVC bailer.

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
3	041-04	w/cv	40ml	No	Yes	NONE	EPA 8015/8020	N	NET
3	041-04	"	"	"	"	"	EPA 601	N	NET

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

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name MW-5 Date 4-30-91 Time of Sampling 16:03

Job Name Shell Piedmont Job Number 81-463-01 Initials BB

Sample Point Description M (M = Monitoring Well)

Location OFF SITE, ACROSS STREET, NEAR BUS STOP

WELL DATA: Depth to Water 4.27 ft (static) pumping @ 12:06 Depth to Product — ft.

Product Thickness — Well Depth 16.5 ft (spec) Well Depth 16.09 ft (sounded) Well Diameter 4 in

Initial Height of Water in Casing 11.82 ft. = volume 7.7 gal.

4 Casing Volumes to be Evacuated. Total to be evacuated 30.8 gal.

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

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

Other —

Evacuation Time: Stop 16:00

Start 15:45

Total Evacation Time 15 min

Total Evacuated Prior to Sampling 31 gal.

Evacuation Rate 2.06 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling 5.79 ft. 16:06 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 Light Brown Odor None

Description of matter in sample: Fine susp. silt particles

Sampling Method: sampled from port on ded. PVC bailer.

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
3	041-05	W/cv	40ml	No	Yes	None	EPA 8015/8020	N	NET
3	"	"	"	"	"	"	EPA 601	N	NET

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 E-4 Date 4-30-91 Time of Sampling 17:50
Job Name Shell Piedmont Job Number 81-463-01 Initials BB
Sample Point Description ARTESIAN WELL (M = Monitoring Well)
Location ON SITE - CORNER OF WILDWOOD and GRAND AVE.

WELL DATA: Depth to Water 0.00 ft (static, pumping) FLOWING @ 12:23 Depth to Product — ft.
Product Thickness — Well Depth 34.26 ft (spec) Well Depth — ft(sounded) Well Diameter 3 in
Initial Height of Water in Casing 34.26 ft. = volume 12.5 gal.
4 Casing Volumes to be Evacuated. Total to be evacuated 50 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 2 3/8" x 4' PVC Dedicated NO (Y/N)
Other —

Evacuation Time: Stop 14:12 15:22 17:47 17:14
Start 14:00 15:15 17:40
Total Evacation Time 26 min
Total Evacuated Prior to Sampling 33 gal.
Evacuation Rate 1.26 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling N/A ft. — time
Evacuated Dry? NO After — gal. Time —
80% Recovery = —
% Recovery at Sample Time — Time —

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

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

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

SAMPLE: Color Clear Odor NONE
Description of matter in sample: NONE
Sampling Method: decanted from clean, new 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
3	041-E4	W/cv	40ml	No	Yes	NONE	EPA 8015/8020	N	NET
3	"	"	"	"	"	"	EPA 601	N	NET
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

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

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name TRAVEL BLANKS Date 4-30-91 Time of Sampling 10:00
Job Name Shell Piedmont Job Number 81-463-01 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	041-21	W/W	40ml	No	Yes	None	EPA 8015/8020	N	NET

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 RESULTS AND CHAIN-OF-CUSTODY FORM

NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Tom Fojut
Weiss Associates
5500 Shellmound St.
Emeryville, CA 94608

Date: 05-08-91
NET Client Acct No: 18.09
NET Pacific Log No: 7295
Received: 05-02-91 0800

Client Reference Information

SHELL, 29 Wildwood Avenue, Piedmont; Project: 81-463-01

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

JS:rct
Enclosure(s)

NET Pacific, Inc.

Client No: 18.09 Date: 05-08-91
Client Name: Weiss Associates
NET Log No: 7295 Page: 2

Ref: SHELL, 29 Wildwood Avenue, Piedmont; Project: 81-463-01

			Descriptor, Lab No. and Results		
			041-01 04-30-91	041-02 04-30-91	
Parameter	Method	Reporting Limit	84075	84076	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-03-91	05-03-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	ND	0.10	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-03-91	05-03-91	
Benzene		0.5	0.8	5.9	ug/L
Ethylbenzene		0.5	0.6	0.7	ug/L
Toluene		0.5	ND	0.6	ug/L
Xylenes, total		0.5	1.2	2.0	ug/L

NET Pacific, Inc.

Client No: 18.09 Date: 05-08-91
Client Name: Weiss Associates
NET Log No: 7295 Page: 3

Ref: SHELL, 29 Wildwood Avenue, Piedmont; Project: 81-463-01

			Descriptor, Lab No. and Results		
			041-03 04-30-91	041-21 04-30-91	
Parameter	Method	Reporting Limit	84077	84078	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			10	1	
DATE ANALYZED			05-04-91	05-03-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	3.8	ND	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			10	1	
DATE ANALYZED			05-04-91	05-03-91	
Benzene		0.5	370	ND	ug/L
Ethylbenzene		0.5	8.6	ND	ug/L
Toluene		0.5	19	ND	ug/L
Xylenes, total		0.5	60	ND	ug/L

Ref: SHELL, 29 Wildwood Avenue, Piedmont; Project: 81-463-01

			Descriptor, Lab No. and Results		
			041-04 04-30-91	041-05 04-30-91	
Parameter	Method	Reporting Limit	84079	84080	Units
METHOD 601					
DATE ANALYZED			05-03-91	05-03-91	
DILUTION FACTOR*			1	1	
Bromodichloromethane		0.4	ND	ND	ug/L
Bromoform		0.4	ND	ND	ug/L
Bromomethane		0.4	ND	ND	ug/L
Carbon tetrachloride		0.4	ND	ND	ug/L
Chlorobenzene		0.4	ND	ND	ug/L
Chloroethane		0.4	ND	ND	ug/L
2-Chloroethylvinyl ether		1.0	ND	ND	ug/L
Chloroform		0.4	ND	ND	ug/L
Chloromethane		0.4	ND	ND	ug/L
Dibromochloromethane		0.4	ND	ND	ug/L
1,2-Dichlorobenzene		0.4	ND	ND	ug/L
1,3-Dichlorobenzene		0.4	ND	ND	ug/L
1,4-Dichlorobenzene		0.4	ND	ND	ug/L
Dichlorodifluoromethane		0.4	ND	ND	ug/L
1,1-Dichloroethane		0.4	ND	ND	ug/L
1,2-Dichloroethane		0.4	ND	ND	ug/L
1,1-Dichloroethene		0.4	ND	ND	ug/L
trans-1,2-Dichloroethene		0.4	3.4	17	ug/L
1,2-Dichloropropane		0.4	ND	ND	ug/L
cis-1,3-Dichloropropene		0.4	ND	ND	ug/L
trans-1,3-Dichloropropene		0.4	ND	ND	ug/L
Methylene Chloride		10	ND	ND	ug/L
1,1,2,2-Tetrachloroethane		0.4	ND	ND	ug/L
Tetrachloroethene		0.4	15	220	ug/L
1,1,1-Trichloroethane		0.4	ND	ND	ug/L
1,1,2-Trichloroethane		0.4	ND	ND	ug/L
Trichloroethene		0.4	4.1	22	ug/L
Trichlorofluoromethane		0.4	ND	ND	ug/L
Vinyl chloride		2.0	ND	ND	ug/L

NET Pacific, Inc.

Client No: 18.09 Date: 05-08-91
Client Name: Weiss Associates
NET Log No: 7295 Page: 5

Ref: SHELL, 29 Wildwood Avenue, Piedmont; Project: 81-463-01

			Descriptor, Lab No. and Results		
			041-04 04-30-91	041-05 04-30-91	
Parameter	Method	Reporting Limit	84079	84080	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-03-91	05-03-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	ND	0.09	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-03-91	05-03-91	
Benzene		0.5	ND	ND	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	ND	ug/L
Xylenes, total		0.5	ND	ND	ug/L

NET Pacific, Inc.

Client No: 18.09 Date: 05-08-91
Client Name: Weiss Associates
NET Log No: 7295 Page: 6

Ref: SHELL, 29 Wildwood Avenue, Piedmont; Project: 81-463-01

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 041-E4 04-30-91 84081	Units
METHOD 601				
DATE ANALYZED			05-03-91	
DILUTION FACTOR*			1	
Bromodichloromethane		0.4	ND	ug/L
Bromoform		0.4	ND	ug/L
Bromomethane		0.4	ND	ug/L
Carbon tetrachloride		0.4	ND	ug/L
Chlorobenzene		0.4	ND	ug/L
Chloroethane		0.4	ND	ug/L
2-Chloroethylvinyl ether		1.0	ND	ug/L
Chloroform		0.4	ND	ug/L
Chloromethane		0.4	ND	ug/L
Dibromochloromethane		0.4	ND	ug/L
1,2-Dichlorobenzene		0.4	ND	ug/L
1,3-Dichlorobenzene		0.4	ND	ug/L
1,4-Dichlorobenzene		0.4	ND	ug/L
Dichlorodifluoromethane		0.4	ND	ug/L
1,1-Dichloroethane		0.4	ND	ug/L
1,2-Dichloroethane		0.4	ND	ug/L
1,1-Dichloroethene		0.4	ND	ug/L
trans-1,2-Dichloroethene		0.4	ND	ug/L
1,2-Dichloropropane		0.4	ND	ug/L
cis-1,3-Dichloropropene		0.4	ND	ug/L
trans-1,3-Dichloropropene		0.4	ND	ug/L
Methylene Chloride		10	ND	ug/L
1,1,2,2-Tetrachloroethane		0.4	ND	ug/L
Tetrachloroethene		0.4	ND	ug/L
1,1,1-Trichloroethane		0.4	ND	ug/L
1,1,2-Trichloroethane		0.4	ND	ug/L
Trichloroethene		0.4	ND	ug/L
Trichlorofluoromethane		0.4	ND	ug/L
Vinyl chloride		2.0	ND	ug/L

NET Pacific, Inc.

Client No: 18.09 Date: 05-08-91
Client Name: Weiss Associates
NET Log No: 7295 Page: 7

Ref: SHELL, 29 Wildwood Avenue, Piedmont; Project: 81-463-01

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 041-E4 04-30-91 84081	Units
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			05-03-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			05-03-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L

Ref: SHELL, 29 Wildwood Avenue, Piedmont; Project: 81-463-01

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Gasoline	0.05	mg/L	92	ND	85	95	11
Benzene	0.5	ug/L	90	ND	90	102	13
Toluene	0.5	ug/L	93	ND	90	98	8.8
Gasoline	0.05	mg/L	81	ND	77	86	11
Benzene	0.5	ug/L	88	ND	87	98	12
Toluene	0.5	ug/L	90	ND	92	102	11

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Chlorobenzene	0.4	ug/L	78	ND	92	93	1.6
1,1-DCE	0.4	ug/L	109	ND	118	112	5.2
TCE	0.4	ug/L	94	ND	105	109	3.7

COMMENT: Blank Results were ND on other analytes tested.

NET Pacific, Inc.

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 16th Edition, APHA, 1985.

WEISS ASSOCIATES
5500 Shellmound St., Emeryville, CA 94608
Phone: 415-547-5420 FAX: 415-547-5043

Shell Service Station Address: 29 WILDWOOD AVE PIEDMONT, CA
Shell Contact: KURT MILLER
WIC #: 204-6001-0109
AFE #:

Please send analytic results and a copy of the signed chain of custody form to:
TOM FOJUT
Project ID: 81-463-01

7 295

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Lab Personnel:
1) Specify analytic method and detection limit in report.
2) Notify us if there are any anomalous peaks on GC or other scans.
3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

Sampled by: BRIAN BUSCH
Laboratory Name: NET

No. of Containers	Sample ID	Container Type	Sample Date	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analyze for	Analytic Method	Turn[5]	COMMENTS
3	(133) 041-01	W/CV	4/30/91	40ml	No	Yes	NONE	TPH-G/BETX	EPA 8015/8020	N	
3	041-02							TPH-G/BETX	EPA 8015/8020	N	
3	041-03							TPH-G/BETX	EPA 8015/8020	N	
3	041-04							TPH-G/BETX	EPA 8015/8020	N	
3	041-04							HVOC's	EPA 601	N	
3	041-05							TPH-G/BETX	EPA 8015/8020	N	
3	041-05							HVOC's	EPA 601	N	
3	041-E4							TPH-G/BETX	EPA 8015/8020	N	
3	041-E4							HVOC's	EPA 601	N	
3	041-21	↓	↓	↓	↓	↓	↓	TPH-G/BETX	EPA 8015/8020	N	

CUSTODY SEALED @ 1400 5/1/91

1 Brian Busch 4/30/91
Released by (Signature), Date

1 WEISS ASSOCIATES
Affiliation

2 [signature] 5/1/91
Received by (Signature), Date

2 Weiss Assoc. 8:35
Affiliation

3 [signature] 5/1/91
Released by (Signature), Date

3 Weiss Assoc. 11:55
Affiliation

4 [signature]
Shipping Carrier, Method, Date

4 NET 5/1/91
Affiliation

5 [signature]
Released by (Signature), Date

5 NET 5/1/91
Affiliation

6 [signature] 5/2/91
Received by Lab Personnel, Date

6 NET Pacific 0800
Affiliation, Telephone

x yes
Seal intact?

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 (write out)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:
STORED OVERNIGHT IN A LOCKED, SECURE PLACE (133)

F:\ALL\ADMIN\FORMS\COCSHELL.WP2

ATTACHMENT C

PREVIOUS GROUND WATER ELEVATION CONTOUR MAPS

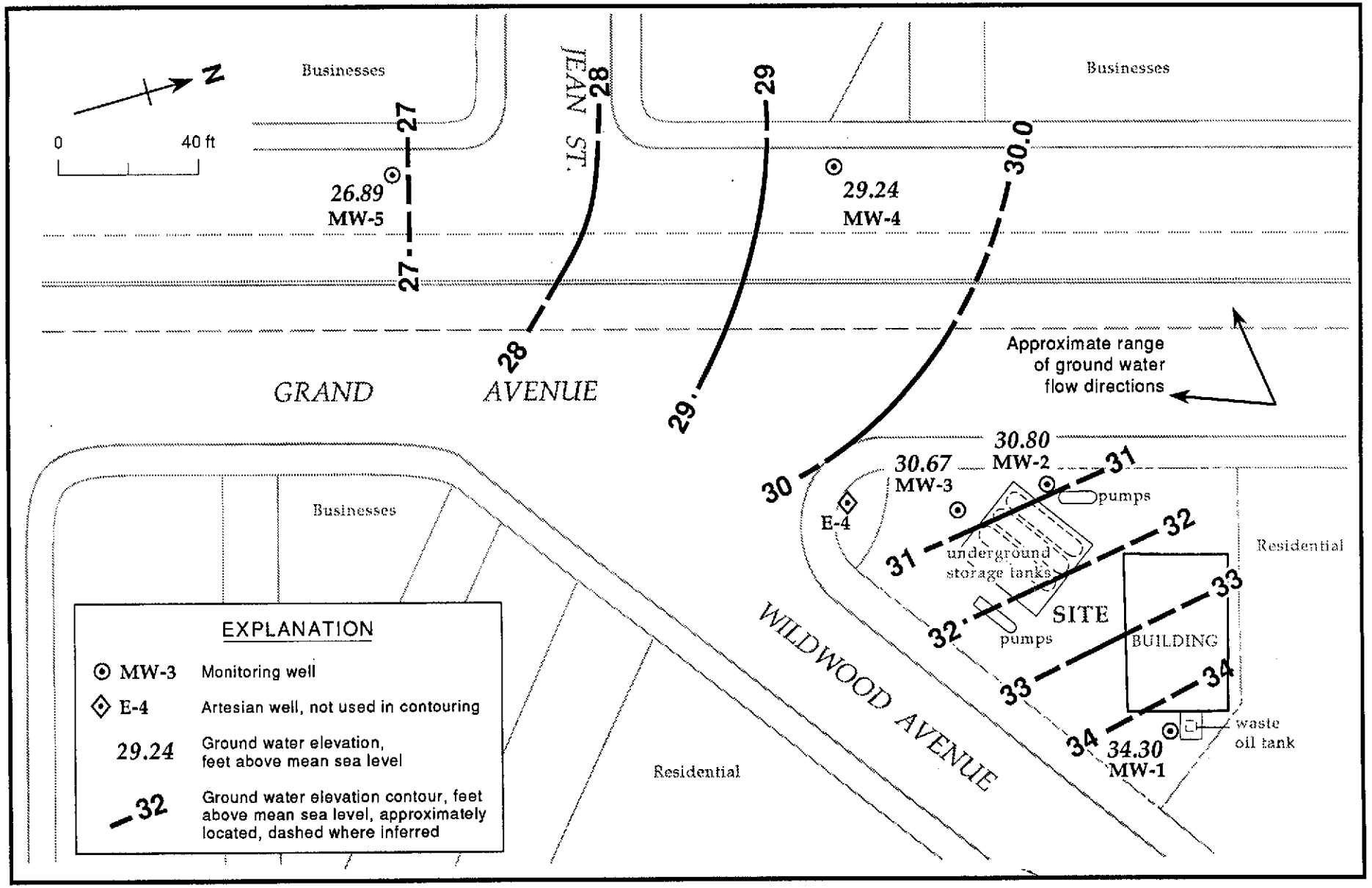

Figure 2. Ground Water Elevation Contours - January 31, 1991 - Shell Service Station, WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

3/4/91

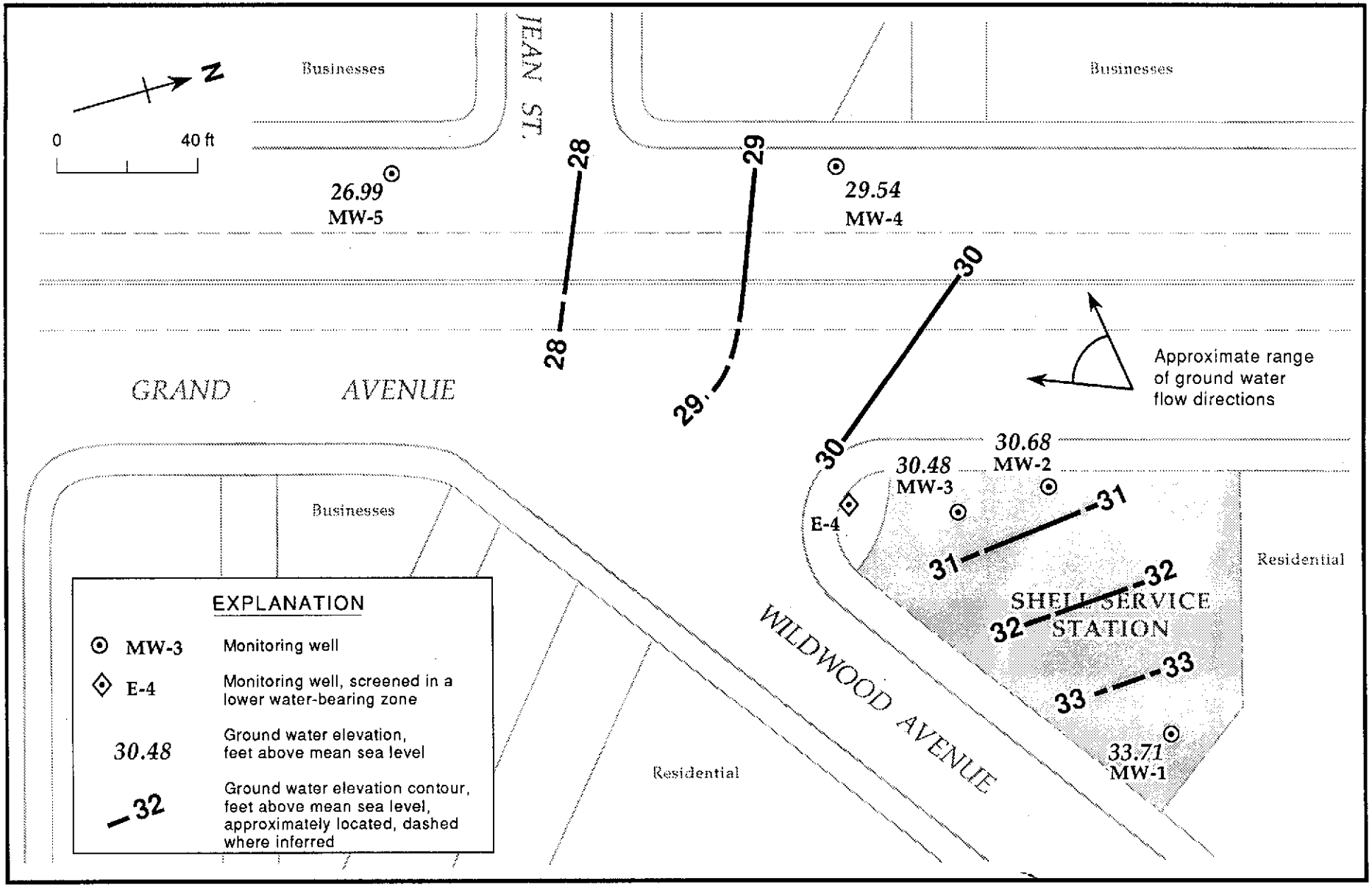

Figure 2. Monitoring Well and Ground Water Elevation Contours - October 30, 1990 - Shell Service Station, WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

12/4/90

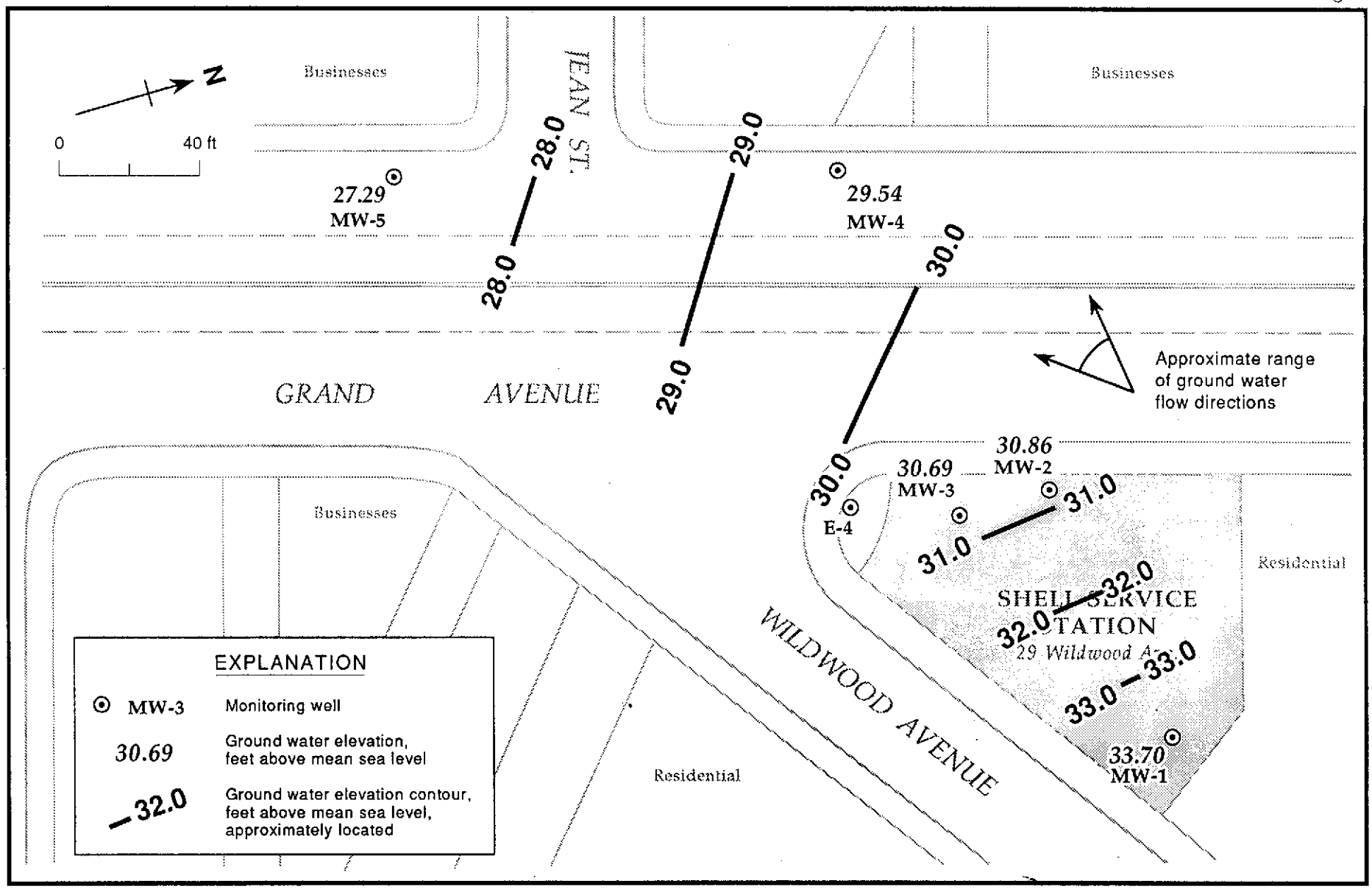

Figure 5. Ground Water Elevation Contours - July 31, 1990 - Shell Service Station, WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

1/14/91

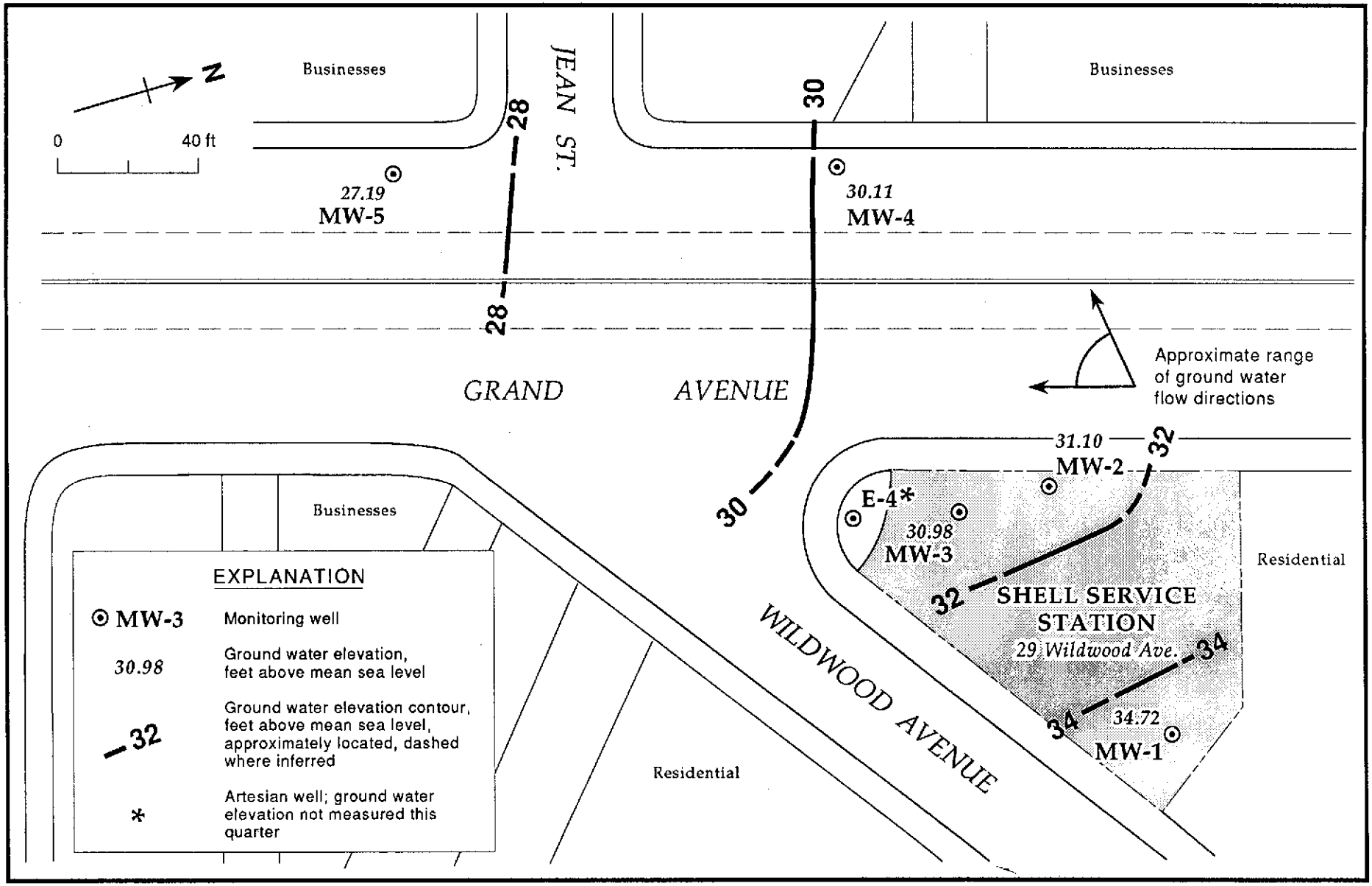

Figure 5. Ground Water Elevation Contours - April 27, 1990 - Shell Service Station, WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

1/14/91