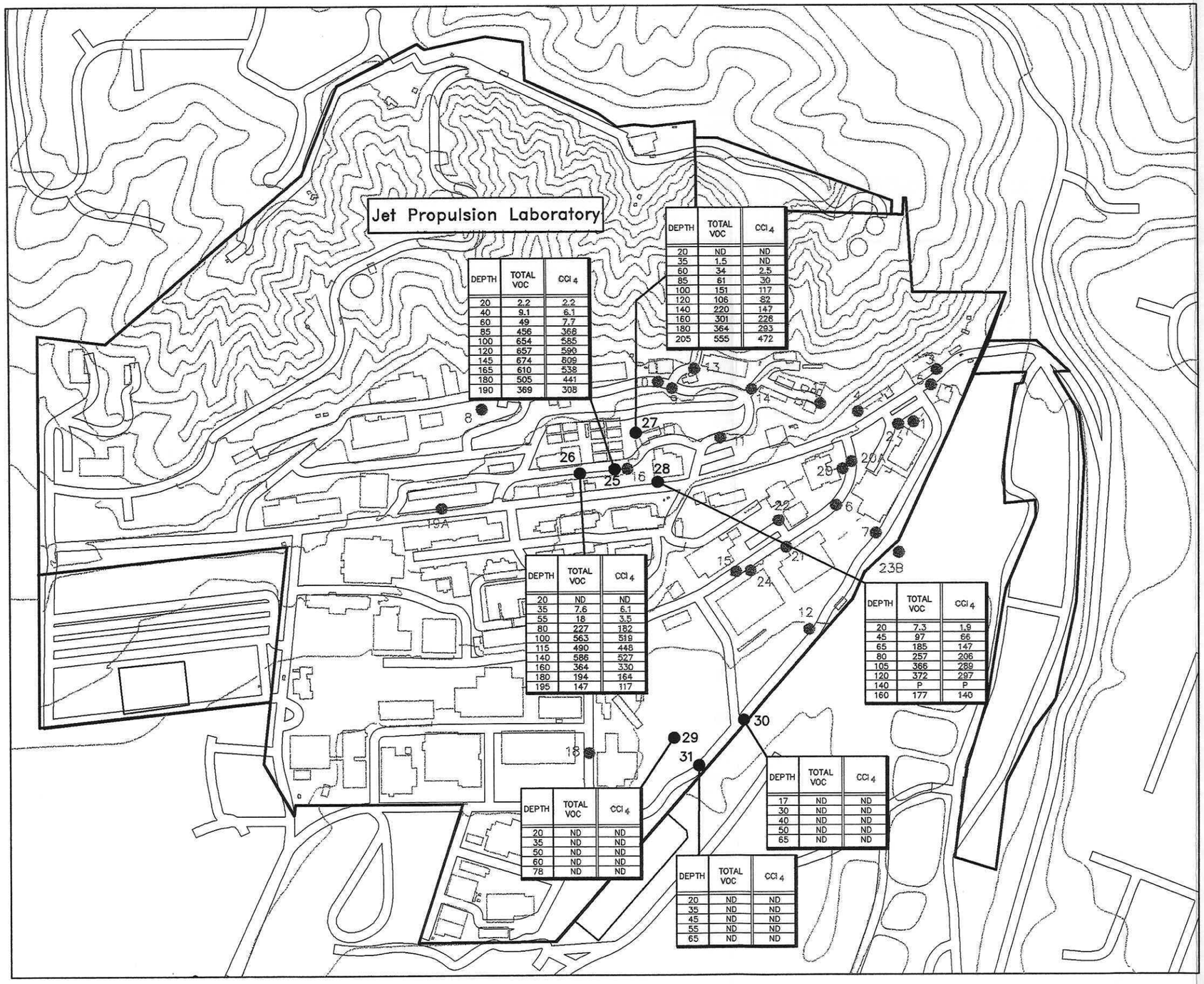
JPLF4-16.DWG



DEPTH	TOTAL VOC	CCl_4
20	2.2	2.2
40	9.1	6.1
60	49	7.7
85	456	368
100	654	585
120	657	590
145	674	609
165	610	538
180	505	441
190	369	308

DEPTH	TOTAL VOC	CCl_4
20	ND	ND
35	1.5	ND
60	34	2.5
85	61	30
100	151	117
120	106	82
140	220	147
160	301	228
180	364	293
205	555	472

DEPTH	TOTAL VOC	CCl_4
20	ND	ND
35	7.6	6.1
55	18	3.5
80	227	182
100	563	519
115	490	448
140	586	527
160	364	330
180	194	164
195	147	117

DEPTH	TOTAL VOC	CCl_4
20	7.3	1.9
45	97	66
65	185	147
80	257	206
105	366	289
120	372	297
140	P	P
160	177	140

DEPTH	TOTAL VOC	CCl_4
20	ND	ND
35	ND	ND
50	ND	ND
60	ND	ND
78	ND	ND

DEPTH	TOTAL VOC	CCl_4
17	ND	ND
30	ND	ND
40	ND	ND
50	ND	ND
65	ND	ND

DEPTH	TOTAL VOC	CCl_4
20	ND	ND
35	ND	ND
45	ND	ND
55	ND	ND
65	ND	ND

Explanation

● 31	Soil Vapor Wells Sampled During Event 5
● 24	Soil Vapor Wells Not Sampled During Event 5
CCl_4	Carbon Tetrachloride
VOC	Volatile Organic Compounds
ND	Non-Detect @ Laboratory Detection Limit (1.0 μg/L-Vapor)
P	Sample Port Plugged; No Sample Collected

N

400 200 0 400

SCALE IN FEET

Source: USGS, 7.5 Minute Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

NOTE:

Concentrations in μg/L-Vapor

FIGURE 4-16

TOTAL VOC AND CARBON TETRACHLORIDE CONCENTRATIONS AT DEPTH, EVENT 5

JULY, 1997

Jet Propulsion Laboratory
Pasadena, California

FOSTER WHEELER ENVIRONMENTAL CORPORATION

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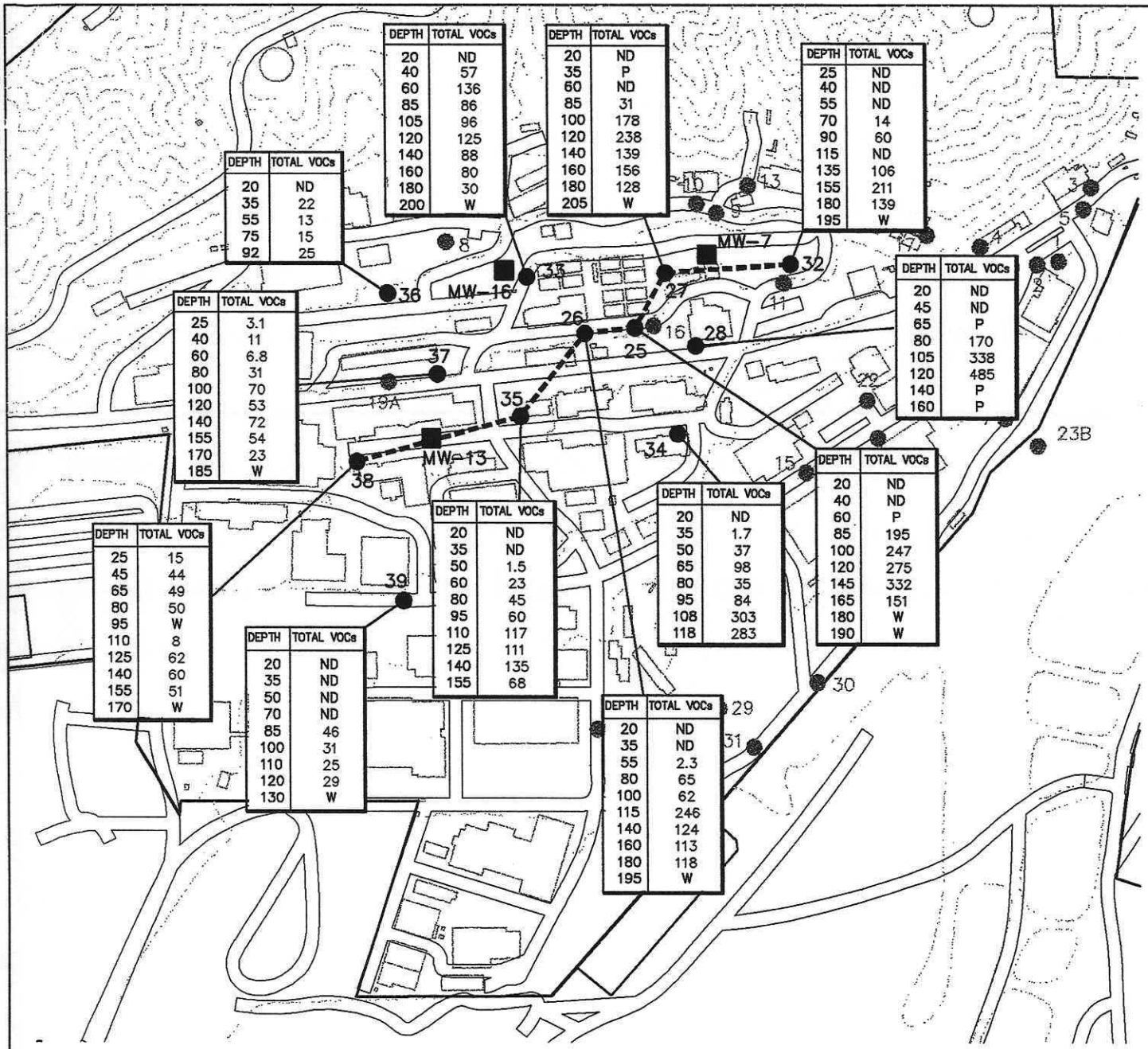

DEPTH	TOTAL VOCs
20	ND
40	57
60	136
85	86
105	96
120	125
140	88
160	80
180	30
200	W

DEPTH	TOTAL VOCs
20	ND
35	P
60	ND
85	31
100	178
120	238
140	139
160	156
180	128
205	W

DEPTH	TOTAL VOCs
25	ND
40	ND
55	ND
70	14
90	60
115	ND
135	106
155	211
180	139
195	W

DEPTH	TOTAL VOCs
20	ND
35	22
55	13
75	15
92	25

DEPTH	TOTAL VOCs
25	3.1
40	11
60	6.8
80	31
100	70
120	53
140	72
155	54
170	23
185	W

DEPTH	TOTAL VOCs
20	ND
45	ND
65	P
80	170
105	338
120	485
140	P
160	P

DEPTH	TOTAL VOCs
20	ND
40	ND
60	P
85	195
100	247
120	275
145	332
165	151
180	W
190	W

DEPTH	TOTAL VOCs
20	ND
35	1.7
50	37
65	98
80	35
95	84
108	303
118	283

DEPTH	TOTAL VOCs
20	ND
35	ND
50	1.5
60	23
80	45
95	60
110	117
125	111
140	135
155	68

DEPTH	TOTAL VOCs
25	15
45	44
65	49
80	50
95	W
110	8
125	62
140	60
155	51
170	W

DEPTH	TOTAL VOCs
20	ND
35	ND
50	ND
70	ND
85	46
100	31
110	25
120	29
130	W

DEPTH	TOTAL VOCs
20	ND
35	ND
55	2.3
80	65
100	62
115	246
140	124
160	113
180	118
195	W

Explanation

● 39	Soil Vapor Wells Sampled During Event 6
● 31	Soil Vapor Wells Not Sampled During Event 6
■ MW-7	Groundwater Monitoring Well
VOCs	Volatile Organic Compounds
ND	Non-Detect @ Laboratory Detection Limit of 1.0 μg/L-Vapor
P	Sample Port Plugged: No Sample Collected
W	Sample Port Waterlogged; No Sample Collected
------	Line of Cross Sections

N

400 200 0 400

SCALE IN FEET

Source: USGS, 7.5 Minute Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

NOTE:

Concentrations in μg/L-Vapor

FIGURE 4-17

TOTAL VOC CONCENTRATIONS AT DEPTH, EVENT 6

MAY, 1999

Jet Propulsion Laboratory
Pasadena, California

FOSTER WHEELER ENVIRONMENTAL CORPORATION

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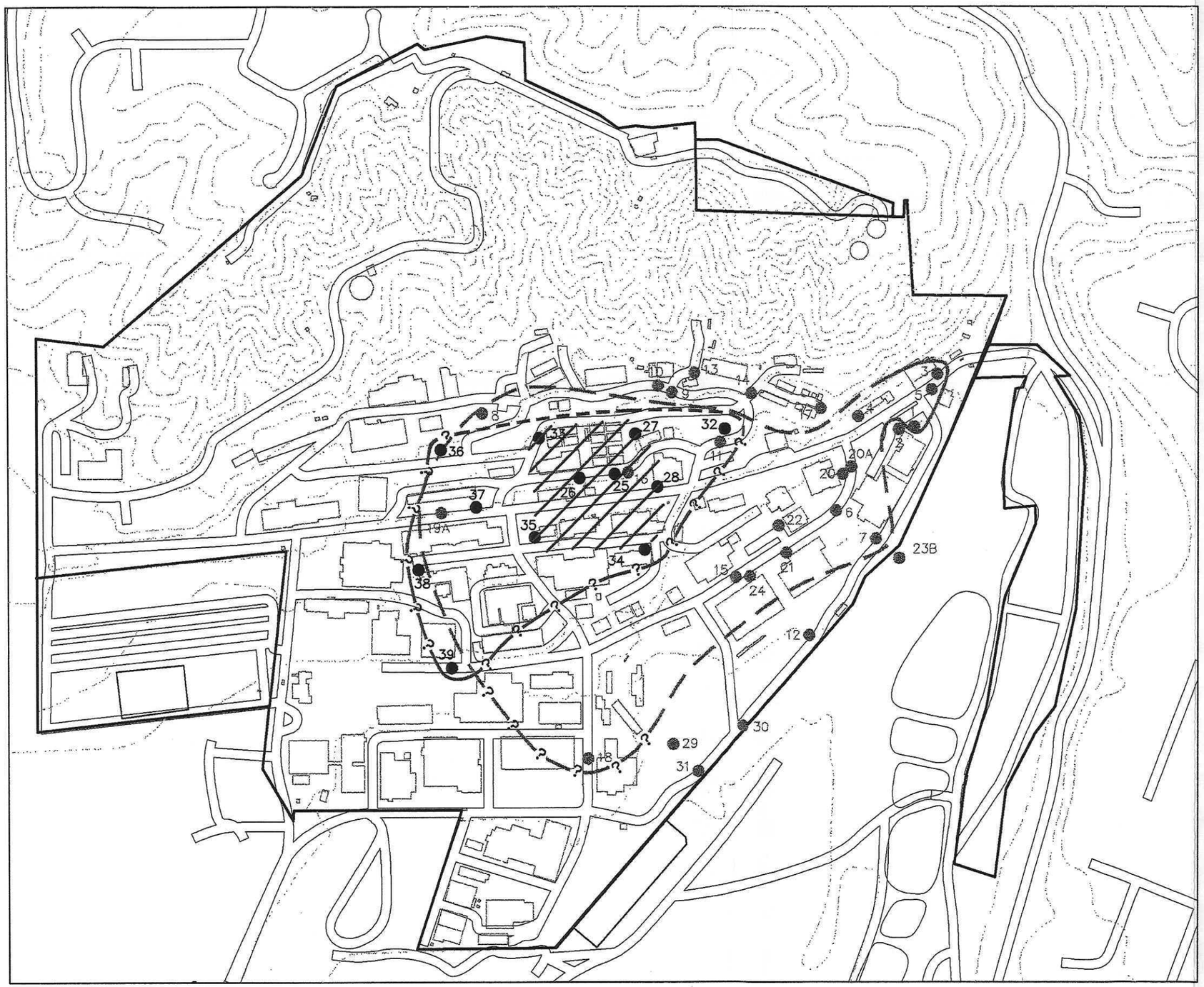

Explanation

● 39 Soil Vapor Wells Sampled During Event 6

● 31 Soil Vapor Wells Not Sampled During Event 6

Countours:

1. Represent minimum known areal distribution based on sampling event.
2. Not queried where some horizontal control exists.

—?— Carbon Tetrachloride (CCl_4) Detected During Event 6

Concentrations of Carbon Tetrachloride (CCl_4) Exceeding 100 $\mu g/L$–Vapor at an Individual Sample Point

— — Carbon Tetrachloride (CCl_4) Detected During Events 2 and 3

N

400 200 0 400

SCALE IN FEET

Source: USGS, 7.5 Minute Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 4–18

CARBON TETRACHLORIDE, EVENT 6

MAY, 1998

Jet Propulsion Laboratory
Pasadena, California

FOSTER WHEELER ENVIRONMENTAL CORPORATION

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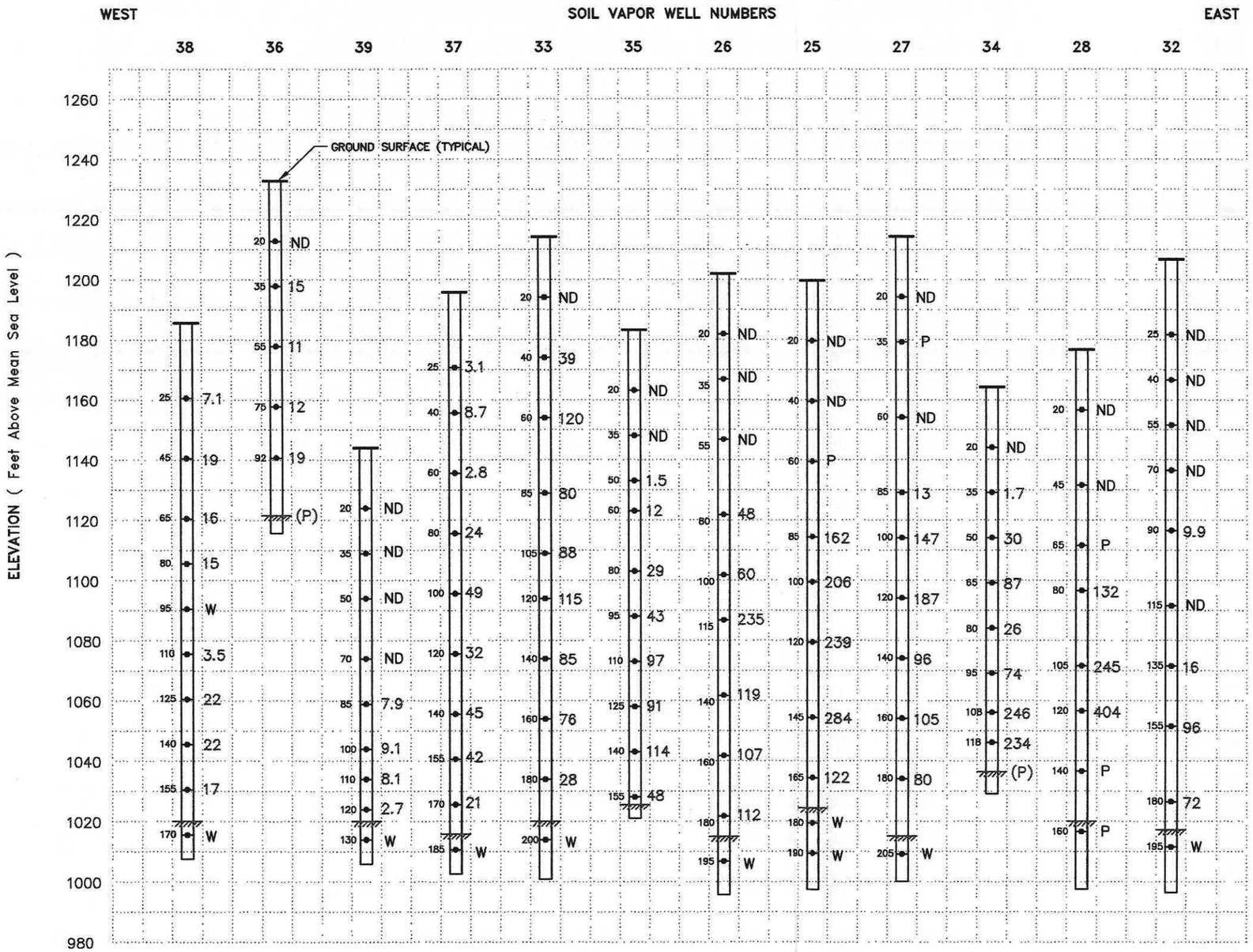

Explanation

20 ●—	Soil Vapor Sample Point and Depth
162	Concentrations of Carbon Tetrachloride (μg/L–Vapor)
ND	Non–Detect @ Laboratory Detection Limit of 1.0 μg/L–Vapor
P	Sample Port Plugged; No Sample Collected
W	Sample Port Waterlogged; No Sample Collected
//////	Estimated Approximate Groundwater Elevation During Event 6
(P)	Perched Groundwater

FIGURE 4–19

VERTICAL EXTENT OF CARBON TETRACHLORIDE FROM WEST TO EAST ACROSS THE JPL SITE, EVENT 6

MAY, 1998

Jet Propulsion Laboratory
Pasadena, California

FOSTER WHEELER ENVIRONMENTAL CORPORATION

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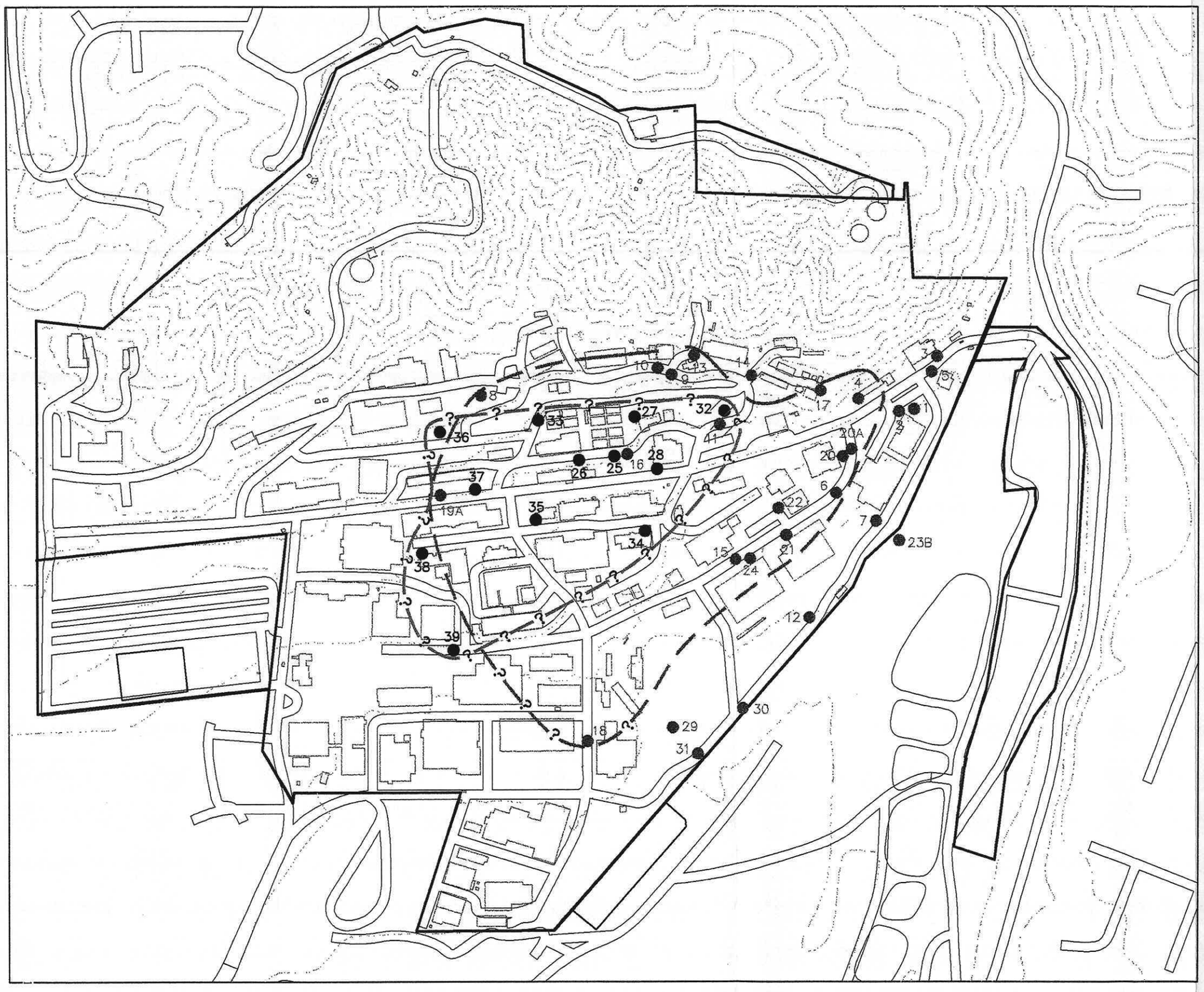
JPLF4-20.DWG



Explanation

● 39 Soil Vapor Wells Sampled During Event 6

● 31 Soil Vapor Wells Not Sampled During Event 6

Countours:

1. Represent minimum known areal distribution based on sampling event.
2. Not queried where some horizontal control exists.

—?— Freon 113 Detected During Event 6

Concentrations of Freon 113 Exceeding 100 μg/L–Vapor at an Individual Sample Point

— — Freon 113 Detected During Events 2 and 3

N

400 200 0 400

SCALE IN FEET

Source: USGS, 7.5 Minute Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 4–20

FREON 113, EVENT 6

MAY, 1998

Jet Propulsion Laboratory
Pasadena, California

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2-11-99

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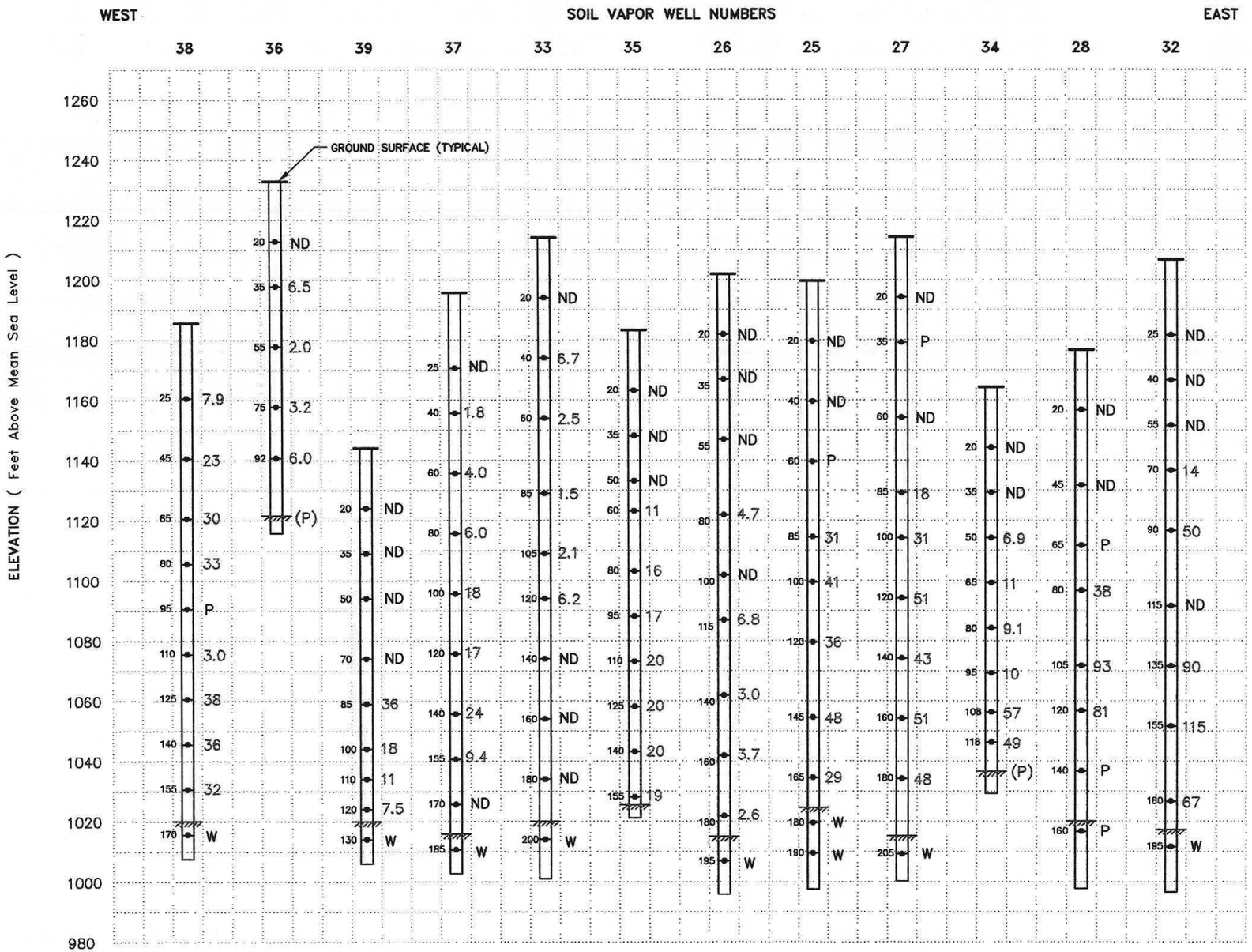

Explanation

20 ●	Soil Vapor Sample Point and Depth
50	Concentrations of Freon 113 (μg/L–Vapor)
ND	Non–Detect @ Laboratory Detection Limit of 1.0 μg/L–Vapor
P	Sample Port Plugged; No Sample Collected
W	Sample Port Waterlogged; No Sample Collected
▨	Estimated Approximate Groundwater Elevation During Event 6
(P)	Perched Groundwater

FIGURE 4–21

VERTICAL EXTENT OF FREON 113 FROM WEST TO EAST ACROSS THE JPL SITE, EVENT 6

MAY, 1998

Jet Propulsion Laboratory
Pasadena, California

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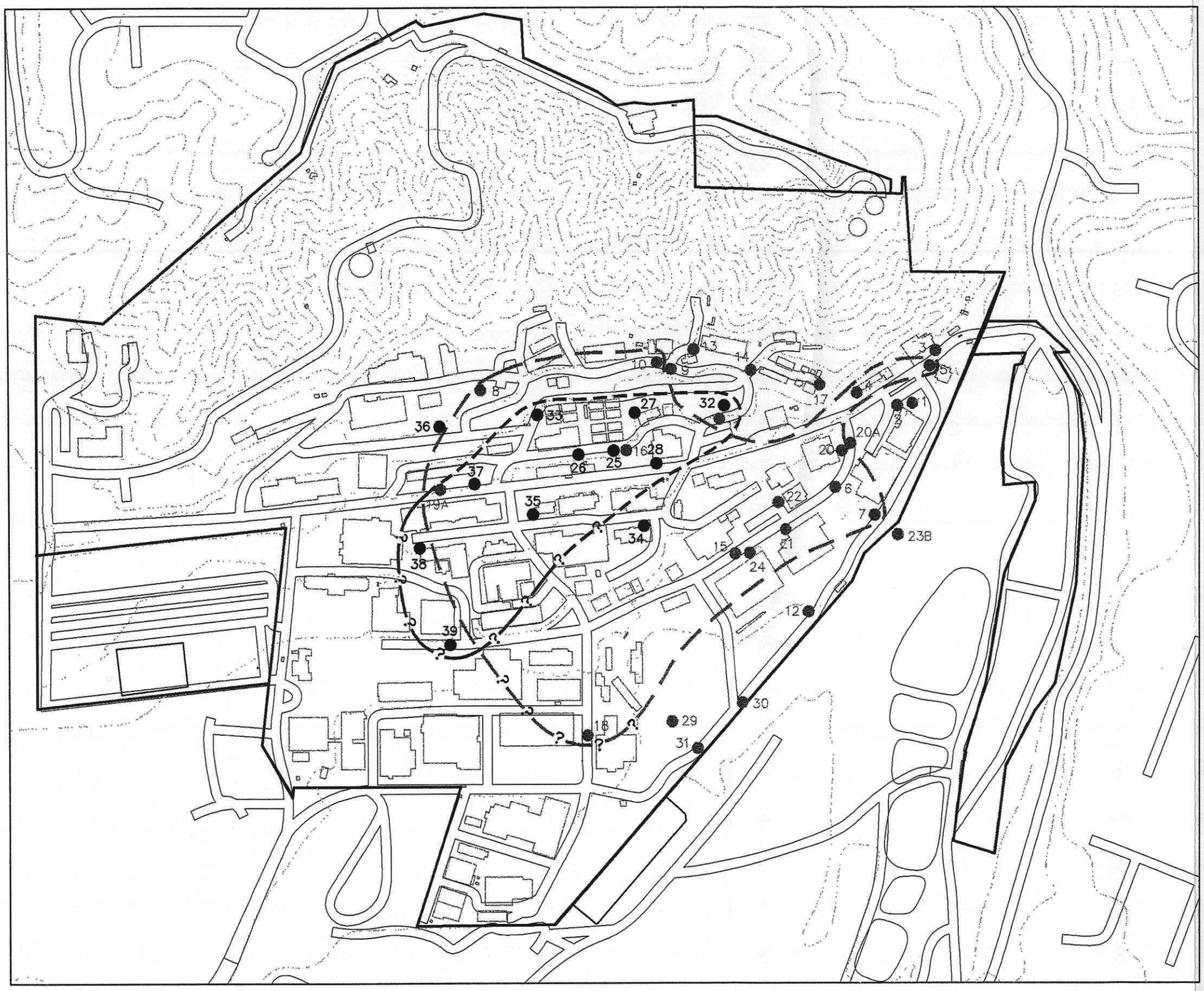
JPLF4-22.DWG



Explanation

● 39 Soil Vapor Wells Sampled During Event 6

● 31 Soil Vapor Wells Not Sampled During Event 6

Countours:

1. Represent minimum known areal distribution based on sampling event.
2. Not queried where some horizontal control exists.

—?— Trichloroethene (TCE) Detected During Event 6

— — — Trichloroethene (TCE) Detected During Events 2 and 3

N

400 200 0 400

SCALE IN FEET

Source: USGS, 7.5 Minute Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 4-22

TRICHLOROETHENE, EVENT 6

MAY, 1998

Jet Propulsion Laboratory
Pasadena, California

FOSTER WHEELER ENVIRONMENTAL CORPORATION

2-11-99

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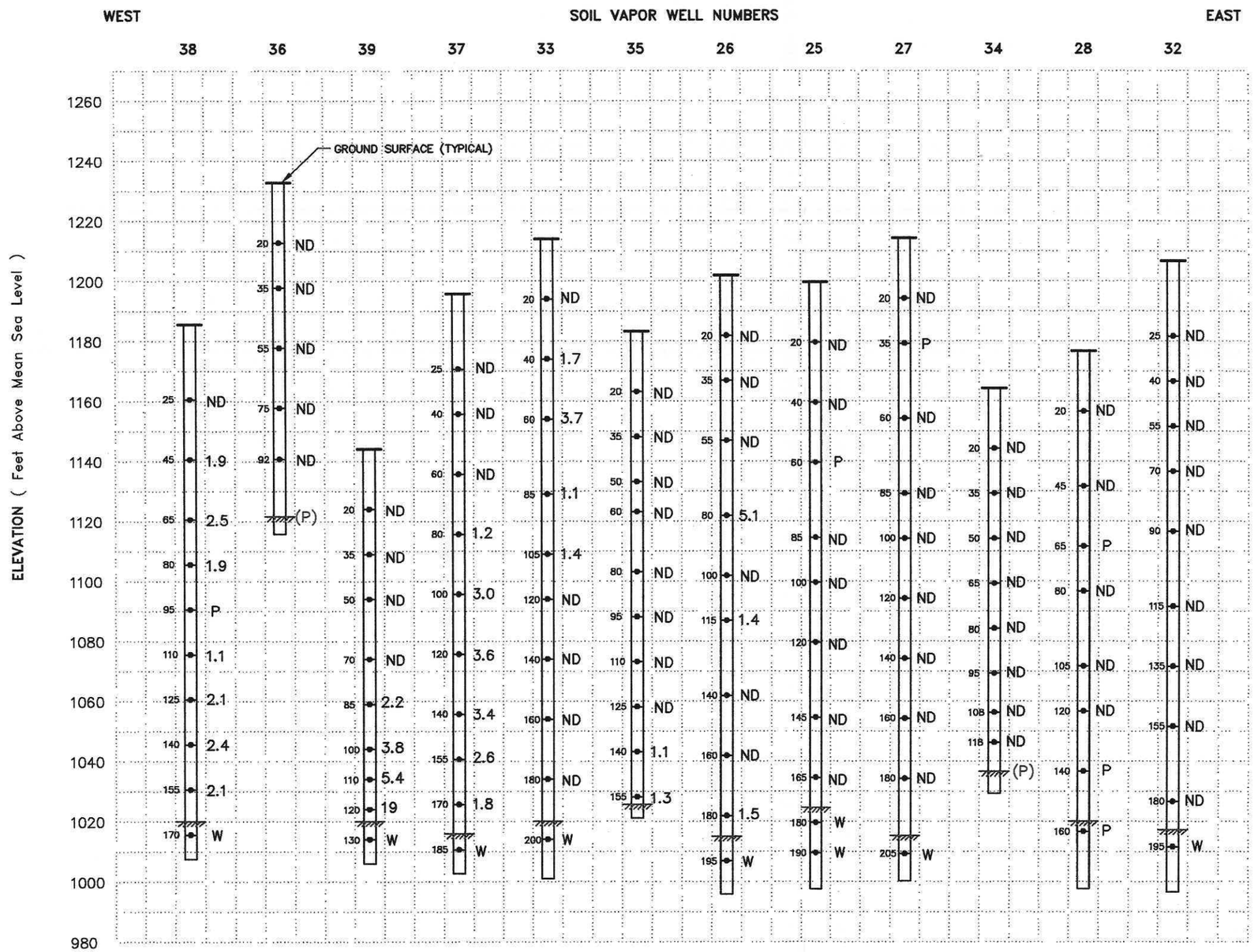

Explanation

25 ◆	Soil Vapor Sample Point and Depth
5.1	Concentrations of Trichloroethene (μg/L–Vapor)
ND	Non–Detect @ Laboratory Detection Limit of 1.0 μg/L–Vapor
P	Sample Port Plugged; No Sample Collected
W	Sample Port Waterlogged; No Sample Collected
//////	Estimated Approximate Groundwater Elevation During Event 6
(P)	Perched Groundwater

FIGURE 4–23

VERTICAL EXTENT OF TRICHLOROETHENE FROM WEST TO EAST ACROSS THE JPL SITE, EVENT 6

MAY, 1998

Jet Propulsion Laboratory
Pasadena, California

FOSTER WHEELER ENVIRONMENTAL CORPORATION

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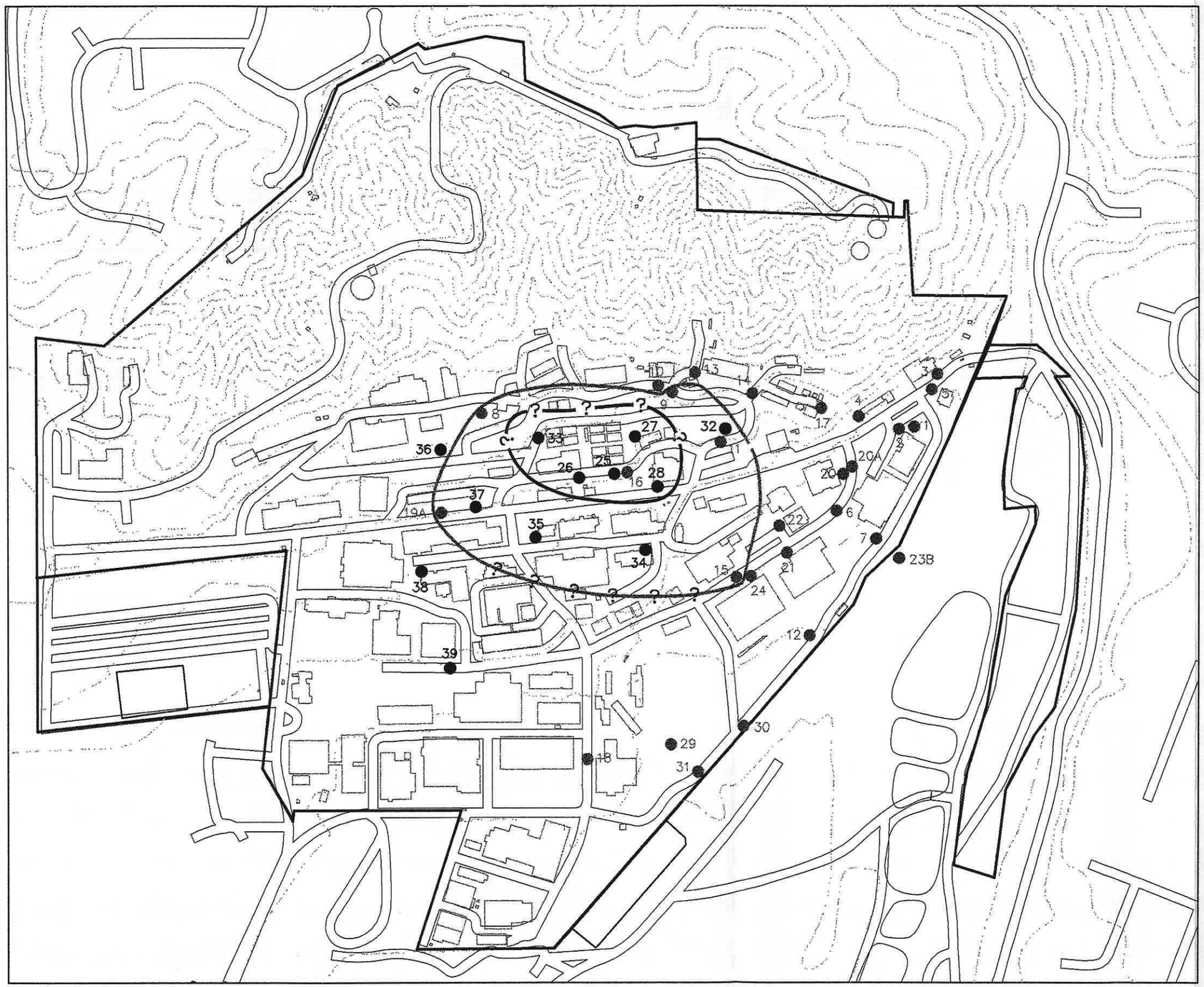
Continue

JPLF4-24.DWG



Explanation

● 39 Soil Vapor Wells Sampled During Event 6

● 31 Soil Vapor Wells Not Sampled During Event 6

Countours:

1. Represent minimum known areal distribution based on sampling event.
2. Not queried where some horizontal control exists.

—?— 1,1-Dichloroethene (1,1-DCE) Detected During Event 6

— — 1,1-Dichloroethene (1,1-DCE) Detected During Events 2 and 3

N

400 200 0 400

SCALE IN FEET

Source: USGS, 7.5 Minute Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 4-24

1,1-DICHLOROETHENE, EVENT 6

MAY, 1998

Jet Propulsion Laboratory
Pasadena, California

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