



I+E

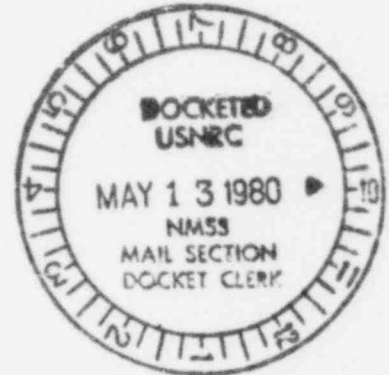
40-6659

Petrotomics Company | P. O. Box 2509, Shirley Basin, Wyoming 82615 • Telephone: (307) 234-9341

A Unit of Getty Oil Company

April 30, 1980

Mr. John Linehan
Uranium Recovery Licensing Branch
Nuclear Regulatory Commission
2915 Eastern Avenue
Silver Springs, MD 20916



Dear Mr. Linehan,

Please find enclosed twelve (12) copies of the supplemental information for the final construction report, Petrotomics Tailings Embankment, Shirley Basin, Wyoming. This information should complete the requirements of your letter of December 7, 1979 and condition #24(b) and (c) of our license.

Graphical interpretation has been provided only for piezometer wells which contained water from November 1979 thru April 1980. All other piezometer wells were dry at the well tip. The November 1979 reading for piezometer well #FP-1 is considered to be an equipment malfunction.

Settlement sensor 45+00 has been inoperative since October, 1979. The monitoring lines were cut during the re-topsoiling of the dam face. The weather has prohibited the repair of this line until May.

If there are any questions about this report, please contact S. J. Pfaff (307) 234-9341, Ext. 192.

S. J. Pfaff
Radiation Coordinator

SJP:pk

cc: file

Enclosures

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

8005280 871

C

PDR

16305

PETROTOMICS ENGINEERING DEPARTMENT

TAILINGS DAM INSTRUMENTATION

Surface horizontal and vertical movement monuments.
Horizontal and vertical movement check.

Survey conducted - April 9, 1980

POINT	COORDINATES		ELEV. (ft.)	DIFFERENCE in LATITUDE (ft.)	DIFFERENCE in DEPARTURE (ft.)	DIFFERENCE in ELEVATION (ft.)
1-A	608,593.19N	808,301.88E	7099.56	0.00	+ 0.01	- 0.09
1-B	608,585.52N	808,311.38E	7098.18	- 0.07	+ 0.08	- 0.19*
2-A	608,511.79N	808,240.89E	7099.52	- 0.02	+ 0.08	- 0.14*
2-B	608,496.35N	808,262.47E	7094.37	+ 0.05	+ 0.08	- 0.29*
3-A	608,279.02N	808,057.03E	7099.49	+ 0.08	- 0.01	- 0.15*
3-B	608,253.57N	808,089.14E	7085.68	+ 0.17*	+ 0.04	- 0.13*
4-A	608,161.49N	807,780.84E	7099.74	+ 0.03	+ 0.02	- 0.13*
4-B	608,110.87N	807,767.89E	7083.79	+ 0.06	- 0.08	- 0.12*
5-A	608,271.98N	807,496.07E	7100.11	+ 0.22*	+ 0.03	+ 0.04
5-B	608,223.75N	807,462.40E	7081.55	- 0.37*	- 0.11*	- 0.01
6-A	608,453.47N	807,255.74E	7100.02	- 0.20*	- 0.02	- 0.06
6-B	608,405.21N	807,212.55E	7079.29	+ 0.02	- 0.06	- 0.02
7-A	608,644.41N	807,025.15E	7099.82	+ 0.02	- 0.01	- 0.00
7-B	608,563.25N	806,952.72E	7065.38	- 0.14*	- 0.03	0.00
8-A	608,834.45N	806,793.93E	7099.96	- 0.15*	+ 0.10*	- 0.02
8-B	608,756.13N	806,724.83E	7065.39	- 0.17*	0.00	- 0.03
9-A	609,026.57N	806,561.65E	7099.94	- 0.10*	+ 0.15*	- 0.22*
9-B	608,951.31N	806,490.71E	7065.59	- 0.24*	+ 0.11*	- 0.04
10-A	609,219.81N	806,328.56E	7099.91	+ 0.02	+ 0.04	- 0.18*
10-B	609,150.01N	806,265.14E	7065.58	+ 0.17*	+ 0.17*	- 0.08
11-A	609,436.34N	806,123.97E	7099.95	- 0.07	+ 0.09	- 0.25*
11-B	609,375.15N	806,051.26E	7065.67	- 0.08	+ 0.05	- 0.03
12-A	609,696.78N	805,967.91E	7099.82	- 0.07	+ 0.07	- 0.06
12-B	609,651.14N	805,885.75E	7065.06	- 0.10*	+ 0.21*	- 0.20*
13-A	609,986.74N	805,874.23E	7099.78	- 0.07	0.00	- 0.41*
13-B	609,967.62N	805,788.62E	7066.02	- 0.15*	+ 0.26*	- 0.07
14-A	610,296.36N	805,926.15E	7100.40	- 0.04	- 0.13*	- 0.03
14-B	610,340.98N	805,845.69E	7065.65	+ 0.08	- 0.13*	- 0.07
15-A	610,532.11N	806,141.55E	7100.54	- 0.03	- 0.14*	- 0.08
15-B	610,593.06N	806,083.18E	7065.91	+ 0.01	- 0.07	0.00
16-A	610,732.55N	806,367.05E	7100.48	- 0.08	- 0.10*	- 0.03
16-B	610,793.22N	806,313.81E	7065.77	- 0.07	- 0.08	- 0.03
17-A	610,926.79N	806,594.23E	7100.66	- 0.12*	- 0.01	- 0.05
17-B	610,992.08N	806,538.53E	7065.59	- 0.25*	- 0.05	- 0.02
18-A	611,116.93N	806,823.95E	7100.48	- 0.15*	- 0.03	- 0.23*
18-B	611,186.57N	806,755.06E	7065.55	- 0.21*	- 0.13*	- 0.05
19-A	611,321.44N	807,048.19E	7100.53	- 0.32*	- 0.02	- 0.12*
19-B	611,390.93N	806,992.09E	7065.14	- 0.14*	0.00	- 0.07
20-A	611,505.06N	807,282.10E	7100.56	- 0.29*	+ 0.04	- 0.03
20-B	611,540.78N	807,253.84E	7083.48	- 0.18*	+ 0.01	- 0.06
21-A	611,684.56N	807,529.74E	7100.55	- 0.01	- 0.07	- 0.04
21-B	611,715.96N	807,517.79E	7088.02	- 0.09	+ 0.16*	- 0.16*
22-A	611,743.97N	807,829.85E	7100.20	+ 0.06	+ 0.01	- 0.05
22-B	611,767.98N	807,823.16E	7091.96	+ 0.08	+ 0.05	- 0.04
23-A	611,798.98N	808,002.60E	7100.57	+ 0.02	+ 0.04	0.00
23-B	611,811.07N	807,997.60E	7100.34	- 0.01	- 0.04	+ 0.03

* Movement due to monument settlement caused possibly by freezing and thawing of structure surfaces. No actual movement of the structure was detected.

NOTE: In the original construction report, the East coordinate for Monument 16-A was transposed and should read: 806,367.15E rather than 806,376.15E.

PETROCHEMICALS ENGINEERING DEPARTMENT
TAILINGS DAM CONSTRUCTION

INSTRUMENTATION

Permanent Reference Monuments (Benchmarks)

POINT	COORDINATES		ELEVATION
19	608,578.53N	805,666.50E	7064.68
41	610,979.84N	805,859.09E	7038.31
G	607,956.57N	808,066.28E	7071.52
H	612,065.64N	807,666.80E	7089.93

Monument Type-3 FT. steel pins 1" O.D., driven three feet in original ground

Surface Settlement and Horizontal Movement Points (Monuments)

POINT	COORDINATES		ELEV.	OFFSET E STA.	BEARING	DIST.
1-A	608,593.19N	808,301.87E	7099.65	6+00	S 47° 27' 34"E	17.47'
1-B	608,585.59N	808,311.30E	7098.37	6+00	S 48° 57' 49"E	29.56'
2-A	608,511.81N	808,240.81E	7099.66	7+00	S 54° 57' 40"E	22.97'
2-B	608,496.30N	808,262.39E	7094.66	7+00	S 54° 36' 12"E	49.55'
3-A	608,278.94N	808,057.04E	7099.64	10+00	S 52° 38' 43"E	26.47'
3-B	608,253.40N	808,089.10E	7085.81	10+00	S 51° 55' 26"E	67.45'
4-A	608,161.46N	807,780.82E	7099.87	13+00	S 7° 41' 36"W	23.75'
4-B	608,110.81N	807,767.97E	7083.91	13+00	S 12° 11' 32"W	75.90'
5-A	608,271.76N	807,496.04E	7100.07	16+00	S 8° 19' 13"W	20.46'
5-B	608,224.12N	807,462.51E	7081.56	16+00	S 28° 15' 40"W	77.07'
6-A	608,453.67N	807,255.76E	7100.08	19+00	S 40° 48' 58"W	20.26'
6-B	608,405.19N	807,212.61E	7079.31	19+00	S 41° 28' 03"W	85.16'
7-A	608,644.39N	807,025.16E	7099.90	22+00	S 39° 48' 08"W	21.62'
7-B	608,563.39N	806,952.75E	7065.38	22+00	S 41° 27' 52"W	130.26'
8-A	608,834.60N	806,753.83E	7099.98	25+00	S 37° 36' 01"W	23.22'
8-B	608,756.30N	806,724.98E	7065.42	25+00	S 40° 38' 50"W	127.45'
9-A	609,026.67N	806,561.50E	7100.16	28+00	S 38° 20' 45"W	23.37'
9-B	608,951.55N	806,490.60E	7065.63	28+00	S 42° 25' 22"W	126.59'
10-A	609,219.79N	806,328.52E	7100.09	31+00	S 42° 18' 01"W	25.97'
10-B	609,150.18N	806,264.97E	7065.66	31+00	S 42° 22' 26"W	120.23'
11-A	609,436.41N	806,123.88E	7100.20	34+00	S 51° 09' 34"W	23.26'
11-B	609,375.23N	806,051.21E	7065.70	34+00	S 50° 09' 10"W	118.25'
12-A	609,696.85N	805,967.84E	7099.88	37+00	S 61° 15' 53"W	25.27'
12-B	609,651.24N	805,885.54E	7065.26	37+00	S 61° 03' 36"W	119.37'
13-A	609,986.81N	805,874.23E	7100.19	40+00	S 77° 09' 35"W	23.35'
13-B	609,967.77N	805,788.36E	7066.09	40+00	S 77° 25' 38"W	111.31'
14-A	610,296.40N	805,926.28E	7100.43	43+00	N 77° 40' 39"W	25.30'
14-B	610,340.90N	805,845.82E	7065.66	43+00	N 64° 37' 09"W	116.42'
15-A	610,532.14N	806,141.69E	7100.62	46+00	N 43° 54' 20"W	30.73'
15-B	610,593.05N	806,083.25E	7065.91	46+00	N 43° 50' 20"W	115.14'
16-A	610,732.63N	806,376.15E	7100.51	49+00	N 41° 34' 35"W	32.93'
16-B	610,793.29N	806,313.89E	7065.80	49+00	N 41° 22' 07"W	113.65'
17-A	610,926.91N	806,594.24E	7100.71	52+00	N 40° 34' 16"W	28.84'
17-B	610,992.33N	806,538.58E	7065.61	52+00	N 40° 26' 12"W	114.74'
18-A	611,117.08N	806,823.98E	7100.71	55+00	N 44° 52' 40"W	19.87'
18-B	611,186.78N	806,755.19E	7065.60	55+00	N 44° 39' 59"W	117.80'
19-A	611,321.76N	807,048.21E	7100.65	58+00	N 43° 37' 47"W	28.68'
19-B	611,391.07N	806,992.09E	7065.21	58+00	N 40° 07' 26"W	117.79'
20-A	611,505.35N	807,282.06E	7100.59	61+00	N 39° 33' 28"W	32.88'
20-B	611,510.96N	807,253.83E	7003.54	61+00	N 38° 53' 22"W	78.32'
21-A	611,684.57N	807,529.81E	7100.59	64+00	N 35° 42' 16"W	19.17'
21-B	611,716.05N	807,517.63E	7088.18	64+00	N 26° 24' 50"W	52.13'
22-A	611,743.91N	807,829.84E	7100.25	67+00	N 12° 26' 46"W	28.58'
22-B	611,767.90N	807,823.11E	7092.00	67+00	N 13° 56' 52"W	53.48'
23-A	611,798.96N	808,002.56E	7100.57	68+83	N 18° 53' 33"W	53.86'
23-B	611,811.08N	807,997.64E	7100.31	68+83	N 19° 31' 04"W	66.93'

PETROTECHNICS ENGINEERING DEPARTMENT
TAILINGS DAM CONSTRUCTION

INSTRUMENTATION

Embankment Settlement Sensor's

SENSOR	COORDINATES		ELEV.	OFFSET STA.	BEARINGS	DIST.
#1	608,845.05N	806,801.93E	7053.70	25+00	S37° 36' 01"W	10.00
#2	610,522.24N	806,151.11E	7042.10	46+00	N43° 54' 20"W	10.00
#3	611,108.13N	806,835.99E	7052.10	55+00	N44° 52' 40"W	10.00

PIEZOMETER WELLS

WELL	COORDINATES		GROUND ELEV.	OFFSET STA.	BEARINGS	DIST.
EP-1	608,836.19	806,779.77	7099.18	25+00	S59° 13' 40"W	32.86
EP-2	609,751.52	805,938.43	7099.28	37+50	S83° 34' 00"W	32.58
EP-3	610,257.36	805,901.14	7100.01	42+50	N63° 59' 55"W	32.73
EP-4	610,630.46	806,245.05	7099.41	47+50	N57° 29' 42"W	39.15
EP-5	611,117.95	806,815.77	7099.61	55+00	N56° 04' 43"W	26.79
EP-6	608,799.47	806,746.23	7081.28	25+00	S49° 05' 16"W	81.74
EP-7	609,725.70	805,885.03	7076.28	37+50	S71° 02' 15"W	90.69
EP-8	610,287.04	805,858.46	7078.71	42+50	N58° 35' 18"W	84.48
EP-9	610,677.71	806,226.01	7077.51	47+50	N37° 19' 11"W	85.87
EP-10	611,160.37	806,789.44	7081.91	55+00	N40° 14' 45"W	75.16
EP-11	608,777.01	806,725.56	7069.68	25+00	S47° 19' 53"W	112.12
EP-12	609,714.55	805,860.73	7066.08	37+50	S69° 44' 39"W	117.33
EP-13	610,302.00	805,836.97	7070.31	42+50	N57° 46' 36"W	110.63
EP-14	610,704.03	806,215.92	7065.21	47+50	N33° 18' 04"W	113.20
EP-15	611,180.37	806,766.29	7070.81	55+00	N42° 49' 33"W	105.49
FP-1	608,789.25	806,759.27	7082.08	25+00	S37° 23' 38"W	80.24
FP-2	609,719.04	805,893.06	7078.18	37+50	S65° 04' 23"W	85.73
FP-3	610,280.94	805,858.45	7079.41	42+50	N62° 15' 20"W	81.48
FP-4	610,669.80	806,222.51	7079.51	47+50	N42° 37' 10"W	82.05
FP-5	611,156.85	806,779.93	7081.01	55+00	N47° 09' 34"W	79.20
FP-6	608,717.69	806,673.93	7057.78	25+00	S44° 44' 11"W	190.48
FP-7	609,672.75	805,774.15	7046.78	37+50	S67° 15' 38"W	213.22
FP-8	610,356.02	805,757.10	7036.51	42+50	N56° 54' 56"W	207.03
FP-9	610,808.37	806,175.97	7039.01	47+50	N27° 10' 00"W	223.62
FP-10	611,255.54	806,706.05	7048.51	55+00	N40° 51' 38"W	201.69

jt:11-14-79

WELL TYPE PIEZOMETER READING

November-1979

POROUS TUBE NUMBER	ORIGINAL EL. OF PIEZOMETER TIP	ELEVATION OF TOP OF RISER TUBE	DISTANCE-TOP OF RISER TUBE TO WATER SURFACE	ELEVATION OF WATER	COMMENTS
EP-1	7060.5	7100.8	39.92	7060.88	
EP-2	7052.2	7102.6	Dry	-----	
EP-3	7039.8	7102.5	Dry	-----	
EP-4	7050.3	7102.4	Dry	-----	
EP-5	7059.2	7102.4	Dry	-----	
EP-6	7058.7	7083.4	Dry	-----	
EP-7	7051.9	7079.7	Dry	-----	
EP-8	7038.7	7082.0	Dry	-----	
EP-9	7048.2	7082.7	Dry	-----	
EP-10	7057.1	7085.4	Dry	-----	
EP-11	7054.0	7070.5	Dry	-----	
EP-12	7049.9	7070.0	Dry	-----	
EP-13	7031.0	7072.4	Dry	-----	
EP-14	7046.2	7069.9	Dry	-----	
EP-15	7053.1	7074.8	Dry	-----	
EP-1	7047.5	7084.7	18.29	7066.41	
EP-2	7034.3	7081.6	37.63	7043.97	
EP-3	7025.9	7082.7	51.92	7030.78	
EP-4	7046.9	7081.8	Dry	-----	
EP-5	7041.6	7083.3	Dry	-----	
EP-6	7047.7	7059.6	9.83	7049.77	
EP-7	7036.9	7049.7	5.92	7043.78	
EP-8	7023.6	7038.8	9.88	7028.92	
EP-9	7026.9	7041.7	13.67	7028.03	
EP-10	7035.4	7049.6	Dry	-----	

WELL TYPE PIEZOMETER READING

December-1979

POROUS TUBE NUMBER	ORIGINAL EL. OF PIEZOMETER TIP	ELEVATION OF TOP OF RISER TUBE	DISTANCE-TOP OF RISER TUBE TO WATER SURFACE	ELEVATION OF WATER	COMMENTS
EP-1	7060.5	7100.8	40'	7060.80	
EP-2	7052.2	7102.6	Dry	-----	
EP-3	7039.8	7102.5	Dry	-----	
EP-4	7050.3	7102.4	Dry	-----	
EP-5	7059.2	7102.4	Dry	-----	
EP-6	7058.7	7083.4	Dry	-----	
EP-7	7051.9	7079.7	Dry	-----	
EP-8	7038.7	7082.0	Dry	-----	
EP-9	7048.2	7082.7	Dry	-----	
EP-10	7057.1	7085.4	Dry	-----	
EP-11	7054.0	7070.5	Dry	-----	
EP-12	7049.9	7070.0	Dry	-----	
EP-13	7031.0	7072.4	Dry	-----	
EP-14	7046.2	7069.9	Dry	-----	
EP-15	7053.1	7074.8	Dry	-----	
FP-1	7047.5	7084.7	29.50	7055.20	
FP-2	7034.3	7081.6	32.33	7049.27	
FP-3	7025.9	7082.7	Dry	-----	
FP-4	7046.9	7081.8	Dry	-----	
FP-5	7041.6	7083.3	Dry	-----	
FP-6	7047.7	7059.6	9.83	7049.77	
FP-7	7036.9	7049.7	6.00	7043.70	
FP-8	7023.6	7038.8	10.25	7028.55	
FP-9	7026.9	7041.7	14.00mud	7027.70	
FP-10	7035.4	7049.6	Dry	-----	

NOTE: Water was also observed in seepage pond at this time.

WELL TYPE PIEZOMETER READING

January - 1980

POROUS TUBE NUMBER	ORIGINAL EL. OF PIEZOMETER TIP	ELEVATION OF TOP OF RISER TUBE	DISTANCE-TOP OF RISER TUBE TO WATER SURFACE	ELEVATION OF WATER	COMMENTS
EP-1	7060.5	7100.8	Dry		
EP-2	7052.2	7102.6	Dry		
EP-3	7039.8	7102.5	Dry		
EP-4	7050.3	7102.4	Dry		
EP-5	7059.2	7102.4	Dry		
EP-6	7058.7	7083.4	Dry		
EP-7	7051.9	7079.7	Dry		
EP-8	7038.7	7082.0	Dry		
EP-9	7048.2	7082.7	Dry		
EP-10	7041.6	7085.4	Dry		
EP-11	7054.0	7070.5	Dry		
EP-12	7049.9	7070.0	Dry		
EP-13	7031.0	7072.4	Dry		
EP-14	7046.2	7069.9	Dry		
EP-15	7053.1	7074.8	Dry		
FP-1	7047.5	7084.7	30.17	7054.53	
FP-2	7034.3	7081.6	39.5	7042.1	
FP-3	7025.9	7082.7	53' 0"	7029.7	
EP-4	7046.9	7081.8	Dry		
EP-5	7057.1	7083.3	Dry		
EP-6	7047.7	7059.6	9.92	7049.68	
FP-7	7036.9	7049.7	6.83	7042.87	
FP-8	7023.6	7038.8	9.5	7029.3	
FP-9	7026.9	7041.7	13.92	7027.78	
FP-10	7035.4	7049.6	Dry		

WELL TYPE PIEZOMETER READING

February - 1980

POREUS TUBE NUMBER	ORIGINAL EL. OF PIEZOMETER TIP	ELEVATION OF TOP OF RISER TUBE	DISTANCE-TOP OF RISER TUBE TO WATER SURFACE	ELEVATION OF WATER	COMMENTS
EP-1	7060.5	7100.8	Dry		
EP-2	7052.2	7102.6	Dry		
EP-3	7039.8	7102.5	Dry		
EP-4	7050.3	7102.4	Dry		
EP-5	7059.2	7102.4	Dry		
EP-6	7058.7	7083.4	Dry		
EP-7	7051.9	7079.7	Dry		
EP-8	7038.7	7082.0	Dry		
EP-9	7048.2	7082.7	Dry		
EP-10	7041.6	7085.4	Dry		
EP-11	7054.0	7070.5	Dry		
EP-12	7049.9	7070.0	Dry		
EP-13	7031.0	7072.4	Dry		
EP-14	7046.2	7069.9	Dry		
EP-15	7053.1	70 ⁺ .8	Dry		
FP-1	7047.5	7084.7	30.5	7054.2	
FP-2	7034.3	7081.6	39.58	7042.02	
FP-3	7025.9	7082.7	53' 0"	7029.7	
FP-4	7046.9	7081.8	Dry		
FP-5	7057.1	7083.3	Dry		
FP-6	7047.7	7059.6	10' 0"	7049.6	
FP-7	7036.9	7049.7	6.83	7042.87	
FP-8	7023.6	7038.8	9.25	7029.55	
FP-9	7026.9	7041.7	13.83	7027.87	
FP-10	7035.4	7049.6	Dry		

WELL TYPE PIEZOMETER READING

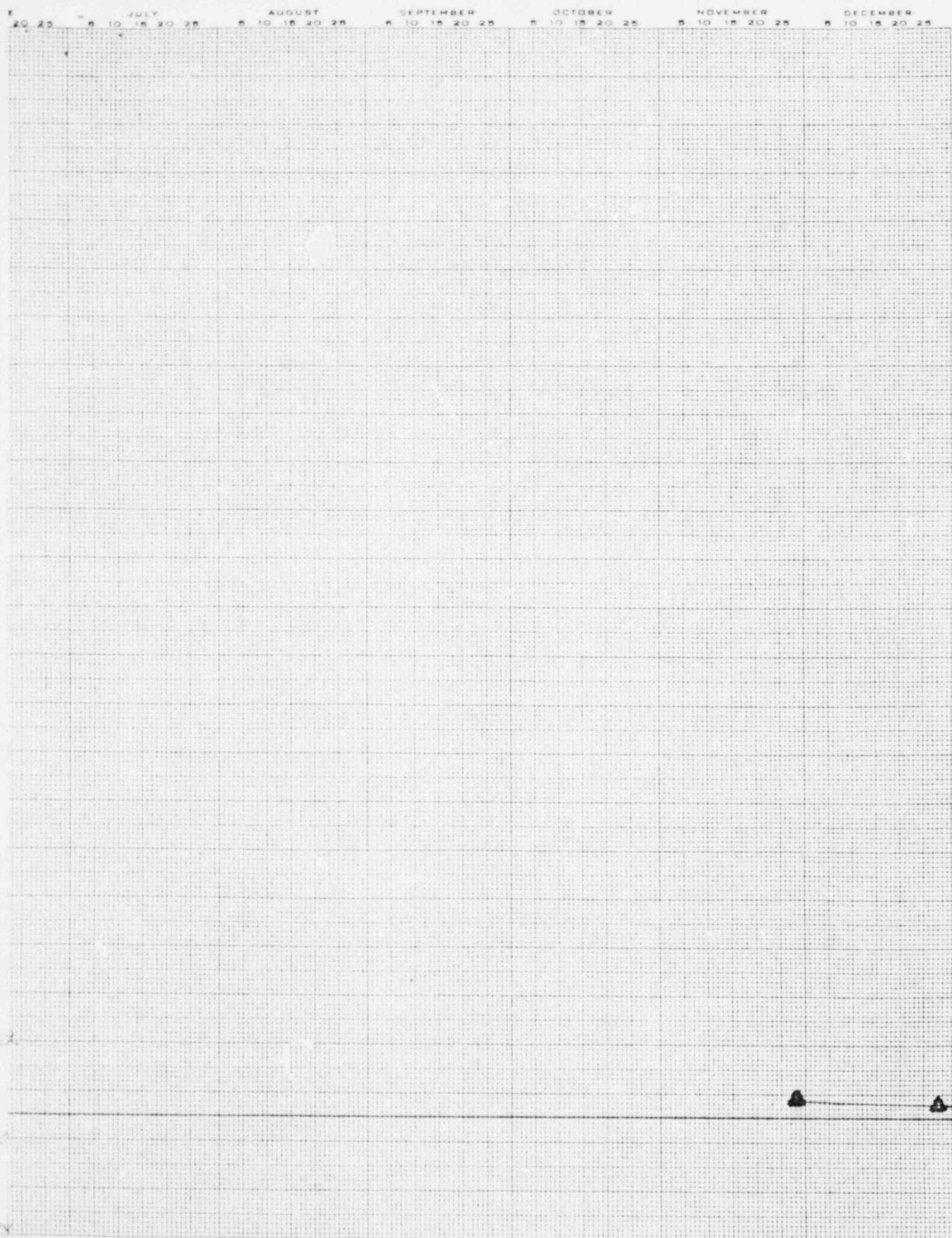
March- 1980

POROUS TUBE NUMBER	ORIGINAL ELEVATION OF PIEZOMETER TIP	ELEVATION OF TOP OF RISER TUBE	DISTANCE-TOP OF RISER TUBE TO WATER SURFACE	ELEVATION OF WATER	COMMENTS
EP-1	7060.5	7100.8	40' 0"	7060.8	
EP-2	7052.2	7102.6	Dry		
EP-3	7039.8	7102.5	Dry		
EP-4	7050.3	7102.4	Dry		
EP-5	7059.2	7102.4	Dry		
EP-6	7058.7	7083.4	Dry		
EP-7	7051.9	7079.7	Dry		
EP-8	7038.7	7082.0	Dry		
EP-9	7048.2	7082.7	Dry		
EP-10	7041.6	7085.4	Dry		
EP-11	7054.0	7070.5	Dry		
EP-12	7049.9	7070.0	Dry		
EP-13	7031.0	7072.4	Dry		
EP-14	7046.2	7069.9	Dry		
EP-15	7053.1	7074.8	Dry		
FP-1	7047.5	7084.7	30.75	7053.95	
FP-2	7034.3	7081.6	39.67	7041.93	
FP-3	7025.9	7082.7	53' 0"	7029.7	
FP-4	7046.9	7081.8	Dry		
FP-5	7057.1	7083.3	Dry		
FP-6	7047.7	7059.6	10.17	7049.43	
FP-7	7036.9	7049.7	7.33	7042.37	
FP-8	7023.6	7038.8	8.58	7030.22	
FP-9	7026.9	7041.7	13.75	7027.95	
FP-10	7035.4	7049.6	13' 0"	7036.6	

WELL TYPE PIEZOMETER READING

APRIL 18, 1980

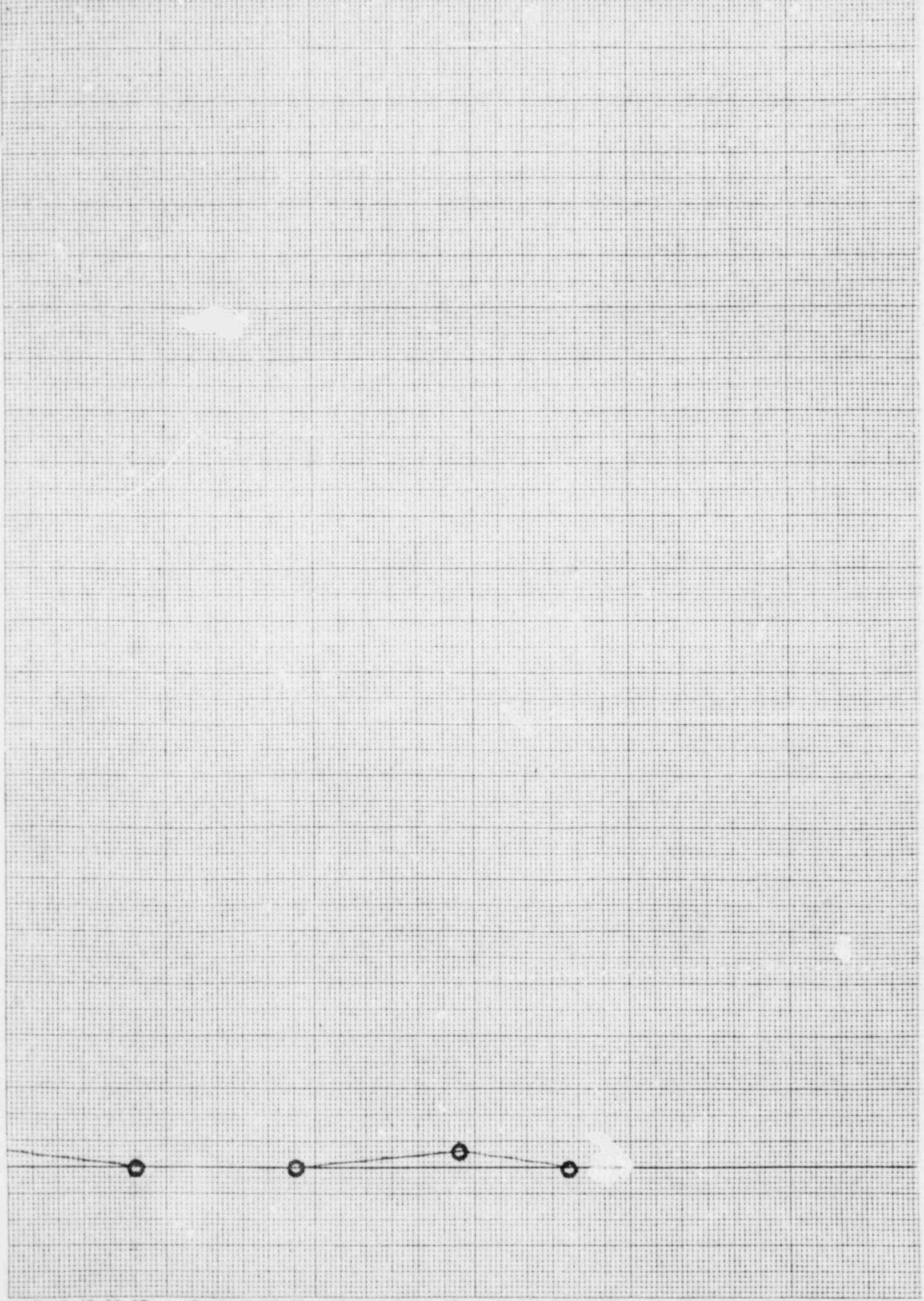
POROUS TUBE NUMBER	ORIGINAL EL. OF PIEZOMETER TIP	ELEVATION OF TOP OF RISER TUBE	DISTANCE-TOP OF RISER TUBE TO WATER SURFACE	ELEVATION OF WATER	COMMENTS
EP-1	7060.5	7100.8	40.0	7060.8	
EP-2	7052.2	7102.6	Dry		
EP-3	7039.8	7102.5	Dry		
EP-4	7050.3	7102.4	Dry		
EP-5	7059.2	7102.4	Dry		
EP-6	7058.7	7083.4	Dry		
EP-7	7051.9	7079.7	Dry		
EP-8	7038.7	7082.0	Dry		
EP-9	7048.2	7082.7	Dry		
EP-10	7041.6	7085.4	Dry		
EP-11	7054.0	7070.5	Dry		
EP-12	7049.9	7070.0	Dry		
EP-13	7031.0	7072.4	40.5	7031.9	
EP-14	7046.2	7069.9	Dry		
EP-15	7053.1	7074.8	Dry		
FP-1	7047.5	7084.7	30.0	7054.7	
FP-2	7034.3	7081.6	39.8	7041.8	
FP-3	7025.9	7082.7	53.4	7029.3	
FP-4	7046.9	7081.8	Dry		
FP-5	7057.1	7083.3	Dry		
FP-6	7047.7	7059.6	Dry		
FP-7	7036.9	7049.7	7.2	7042.5	
FP-8	7023.6	7038.8	8.4	7030.4	
FP-9	7026.9	7041.7	13.4	7028.3	
FP-10	7035.4	7049.6	Dry		

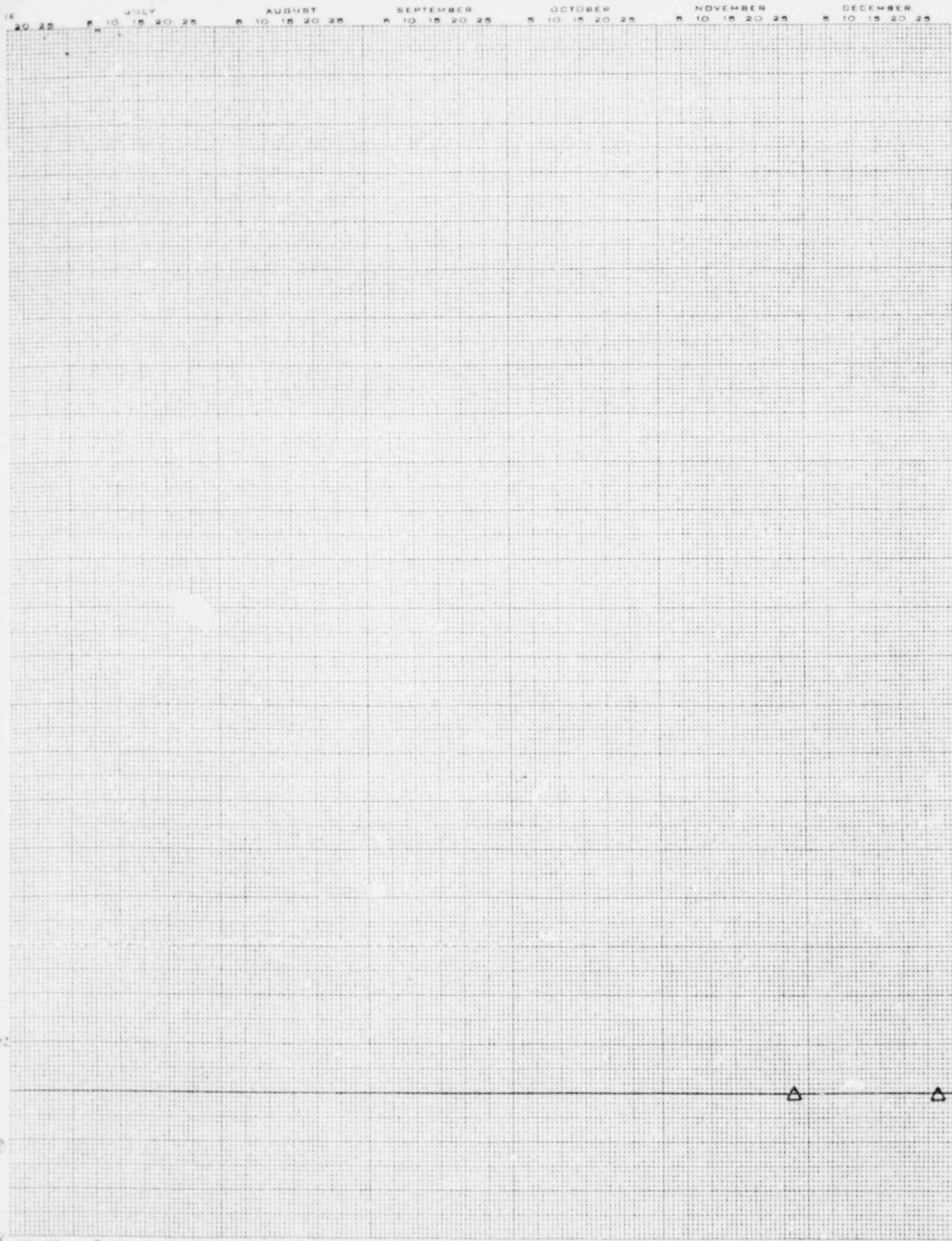


20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25
1979 - Δ WELL-TYPE PIEZOMETER READINGS WELL # EP-1
1980 \circ

JANUARY FEBRUARY MARCH APRIL MAY JUNE
5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25

7072
7070
7068
7066
7064
7062
WELL TIP
7060
7058





JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER

5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25

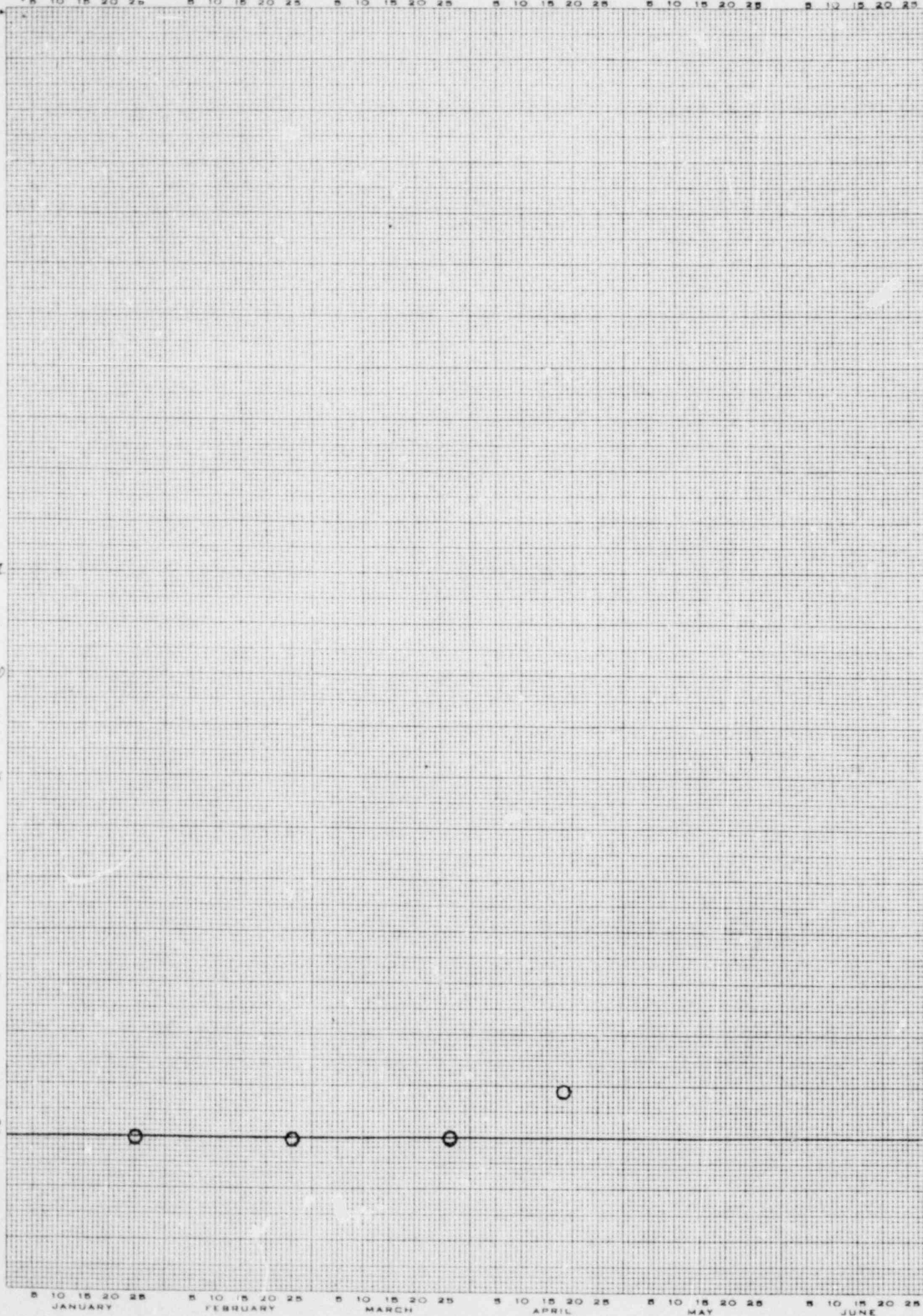
5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25

1974 — Δ
 1980 — ○

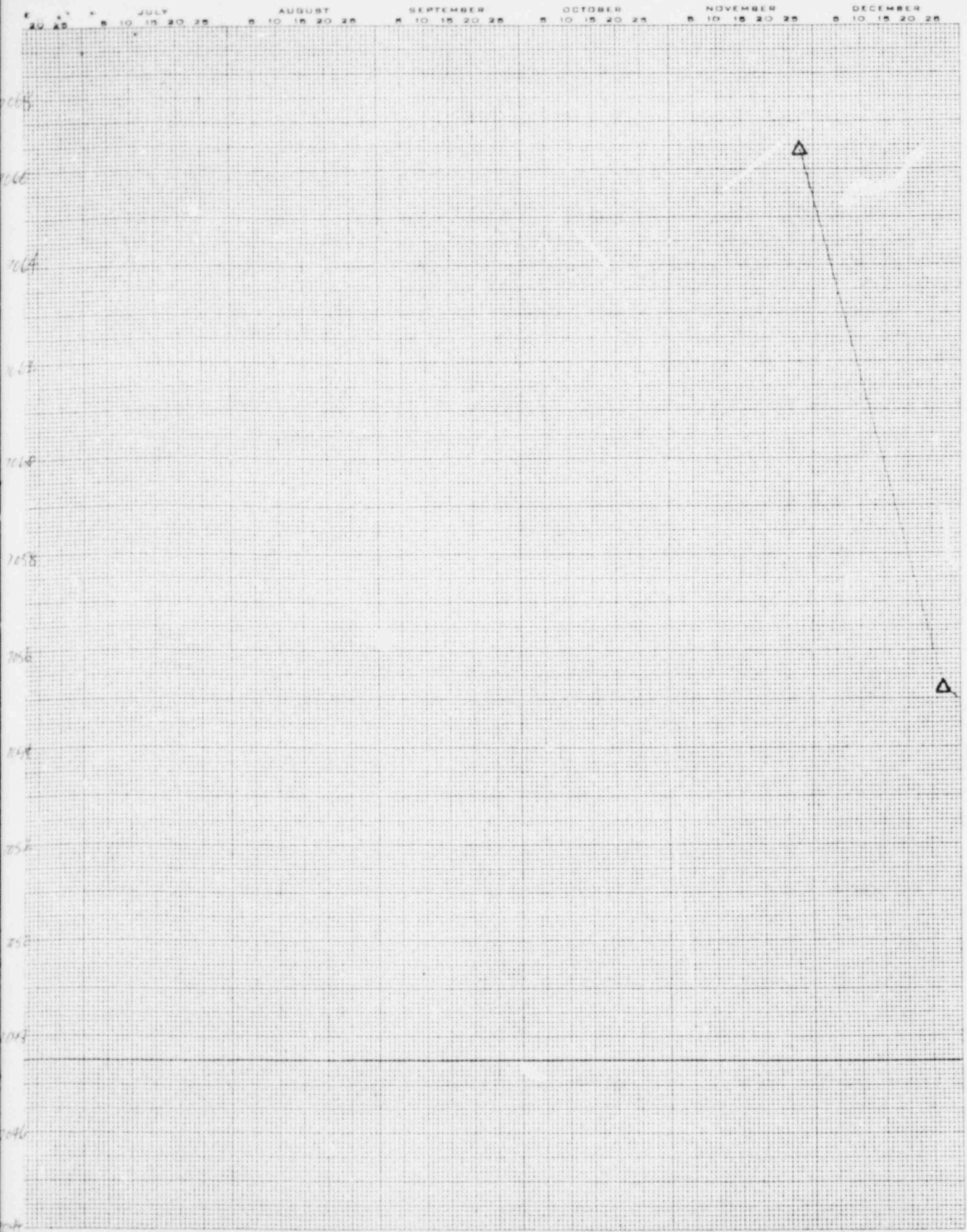
WELL TYPE PIEZOMETER READINGS WELL # EP-13

JANUARY FEBRUARY MARCH APRIL MAY JUNE
5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25

7042
7040
7038
7036
7034
7032
WELL TOP
7030
7028



JANUARY FEBRUARY MARCH APRIL MAY JUNE
5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25



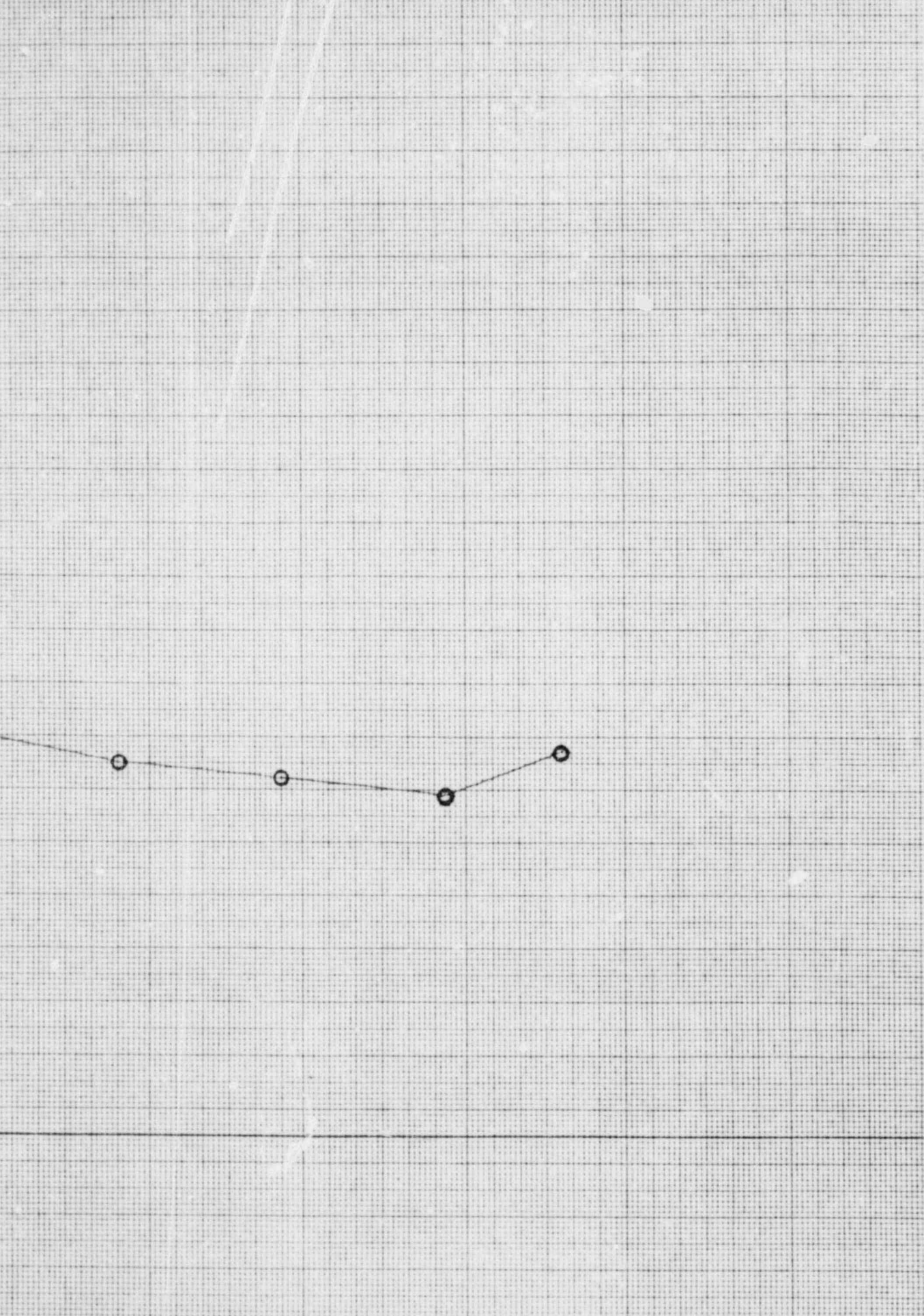
1979 - Δ
 1980 - \circ

WELL TYPE PIEZOMETER READINGS

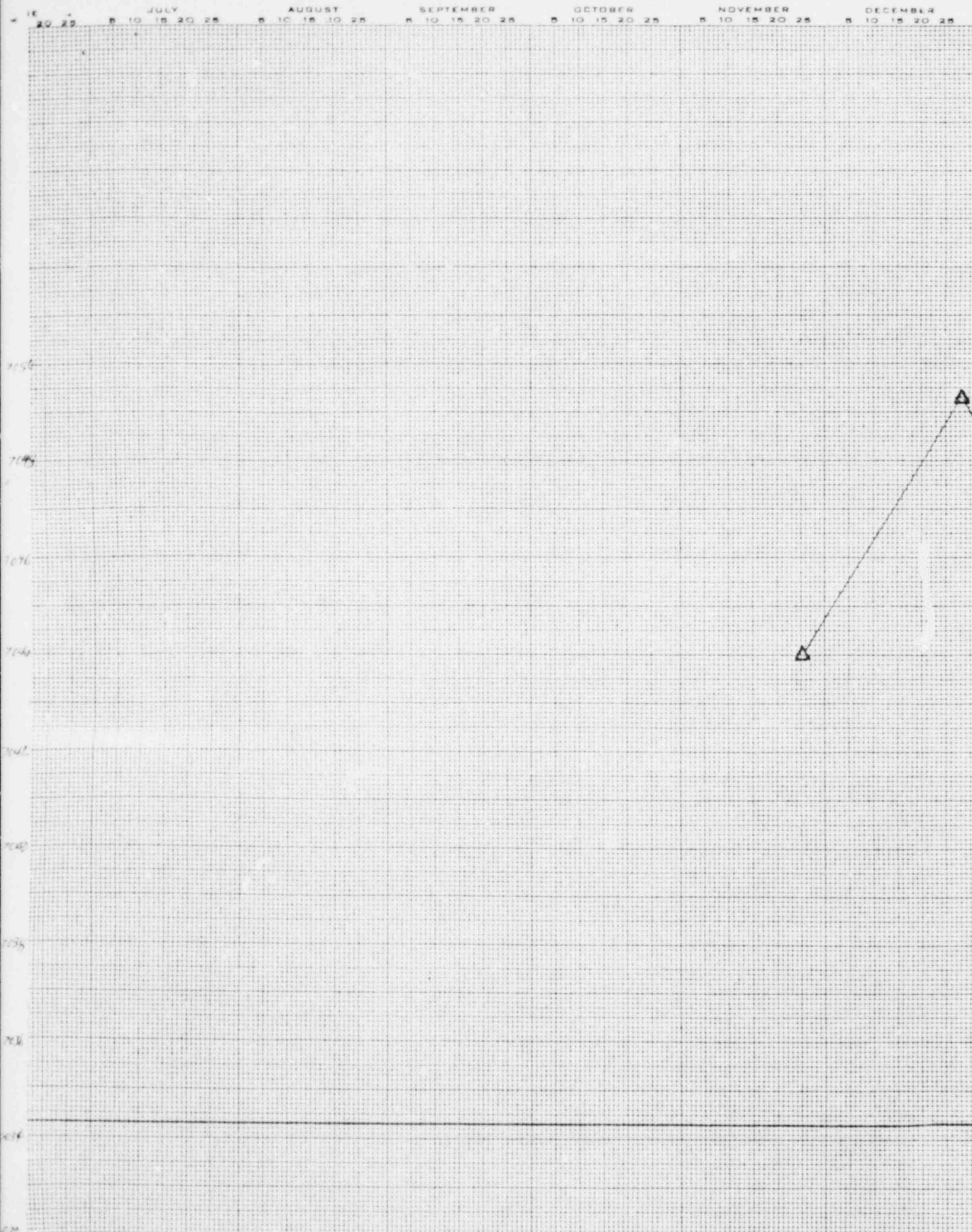
WELL # FP-1

5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25

7068
7066
7064
7062
7060
7058
7056
7054
7052
7050
7048
WELL TIP
7046
7044



5 10 15 20 25 JANUARY 5 10 15 20 25 FEBRUARY 5 10 15 20 25 MARCH 5 10 15 20 25 APRIL 5 10 15 20 25 MAY 5 10 15 20 25 JUNE



1979 - Δ
 1980 - \circ

WELL TYPE PIEZOMETER READINGS, WELL # FP-2

JANUARY FEBRUARY MARCH APRIL MAY JUNE
5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25

7052

7050

7048

7046

7044

7042

7040

7038

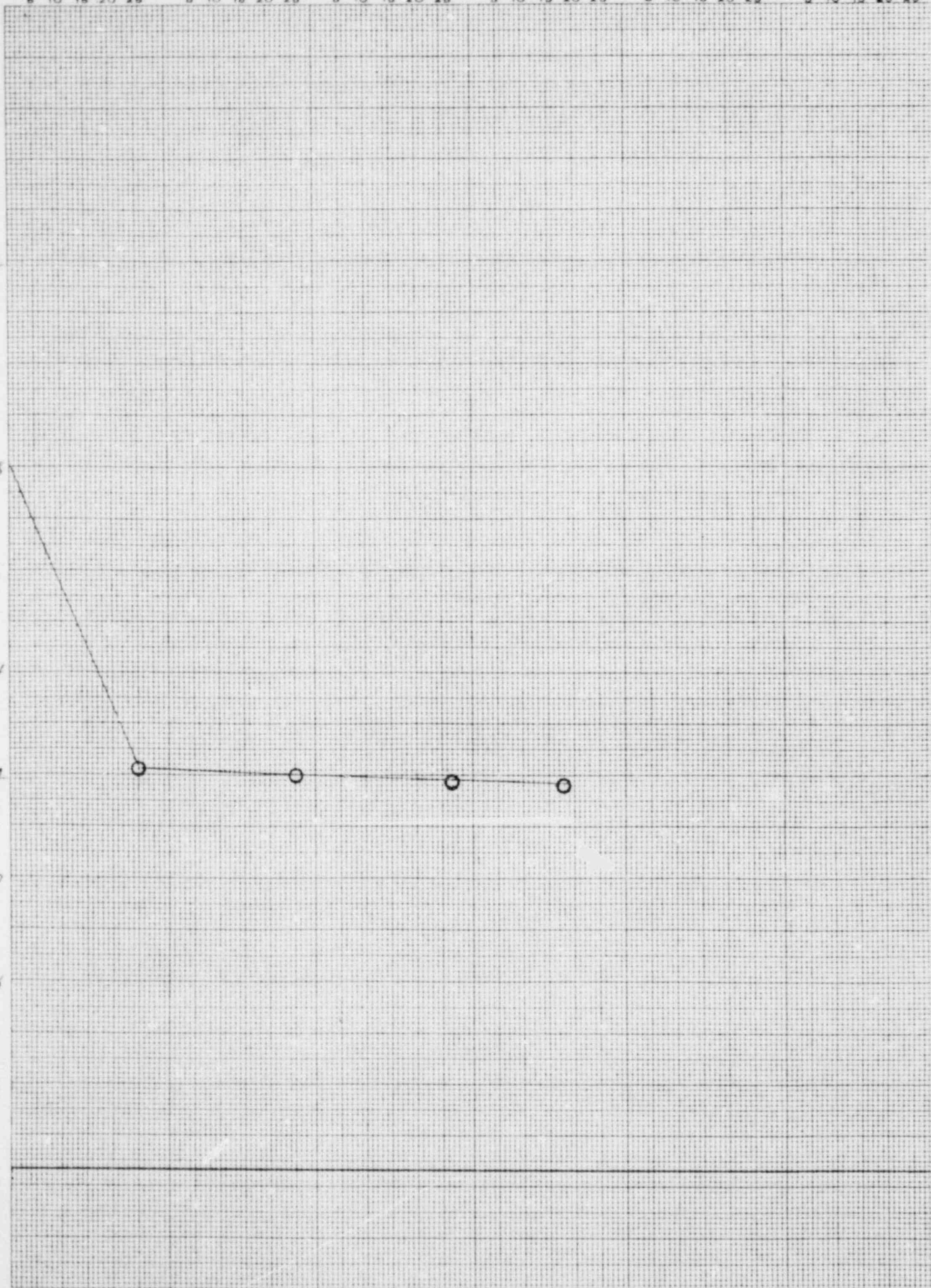
7036

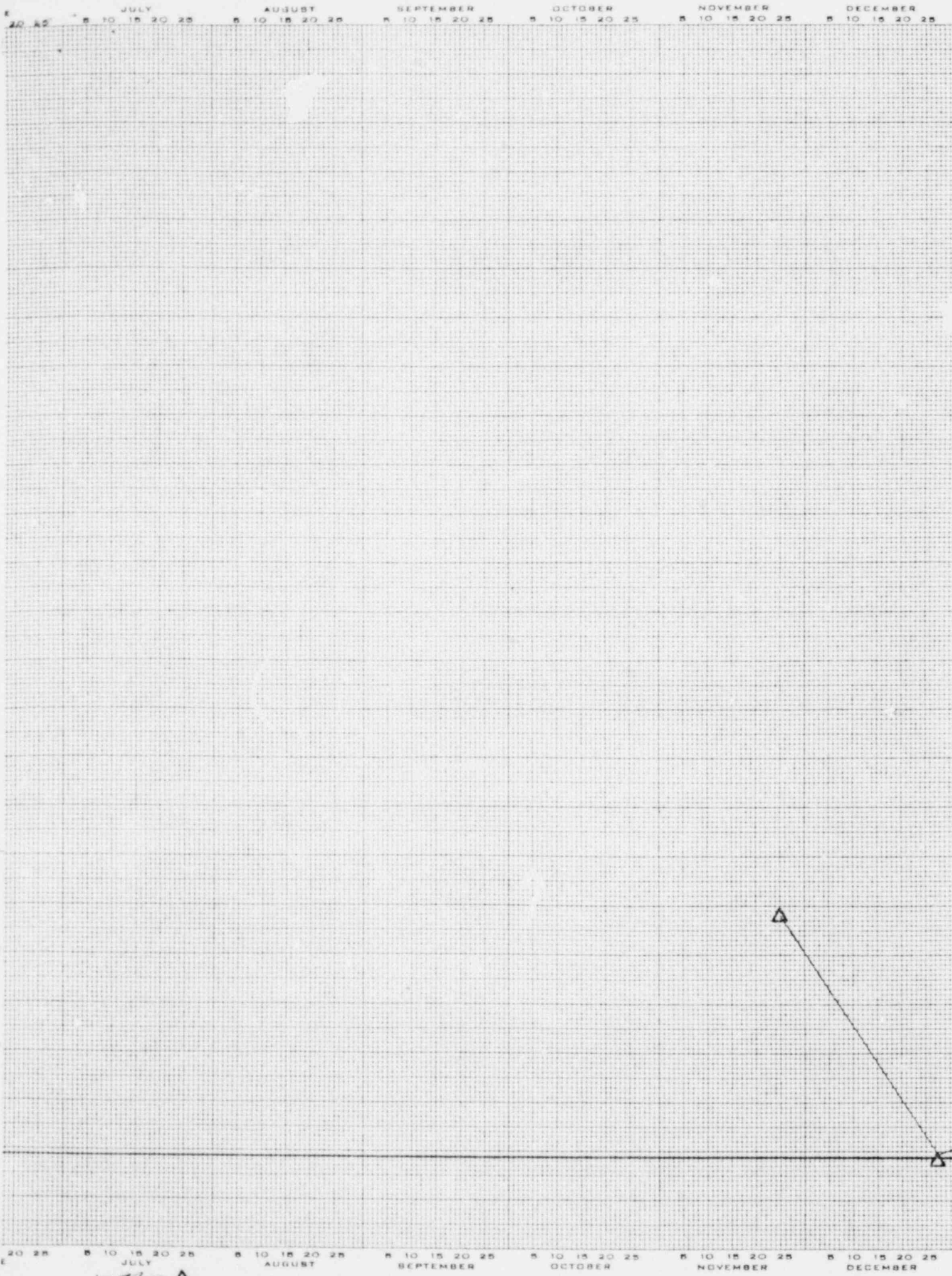
ELL TIP

7034

7032

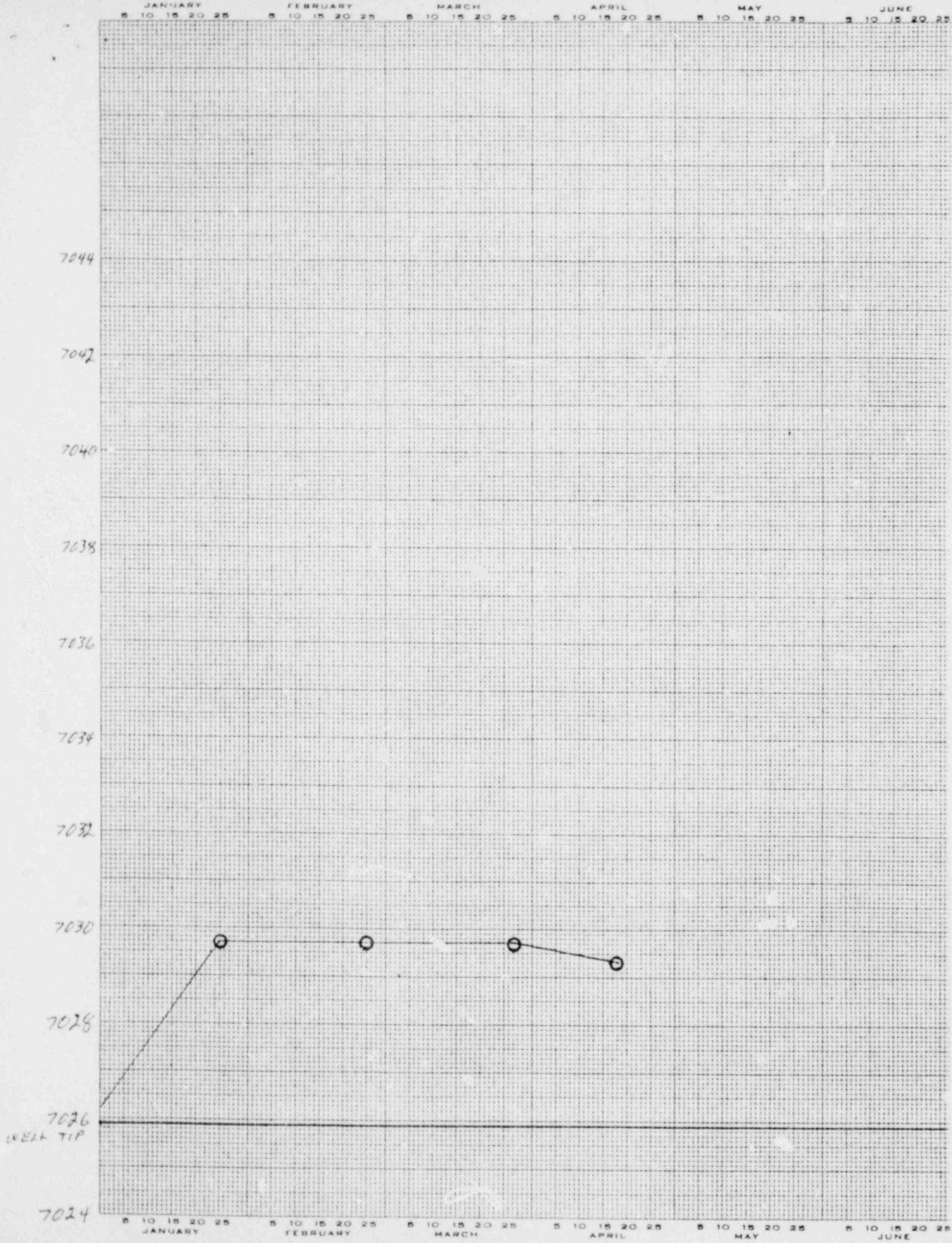
5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25
JANUARY FEBRUARY MARCH APRIL MAY JUNE

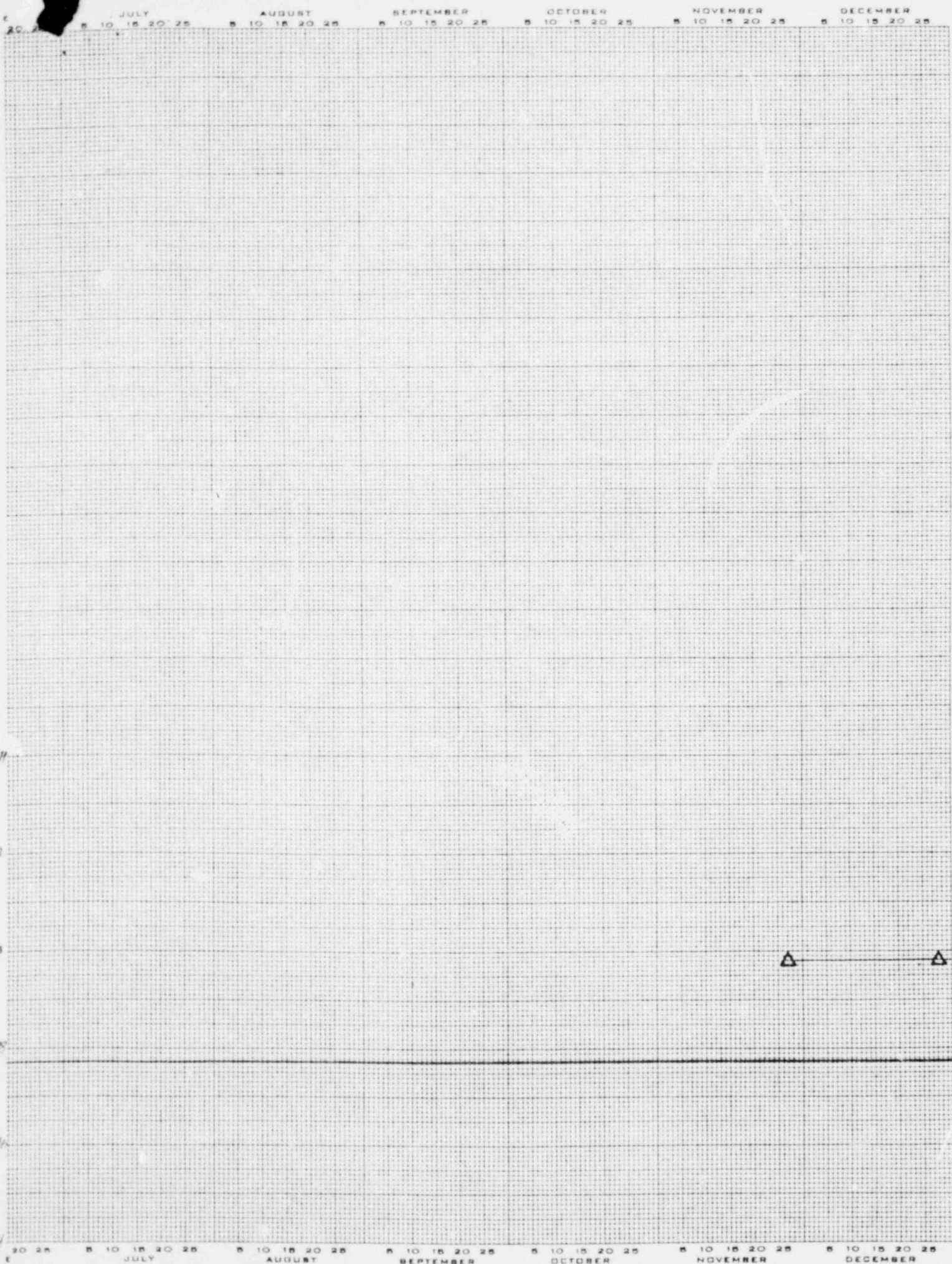




1979 - Δ
 1980 - \circ

WELL TYPE PIEZOMETER READINGS WELL # FP-3





1979 — Δ
 1980 — \circ

WELL TYPE PIEZOMETER READINGS WELL # FP-6

JANUARY

FEBRUARY

MARCH

APRIL

MAY

JUNE

5 10 15 20 25

5 10 15 20 25

5 10 15 20 25

5 10 15 20 25

5 10 15 20 25

5 10 15 20 25

7062

7060

7058

7056

7054

7052

7050

7048

VELL TIP

7046

7044

JANUARY

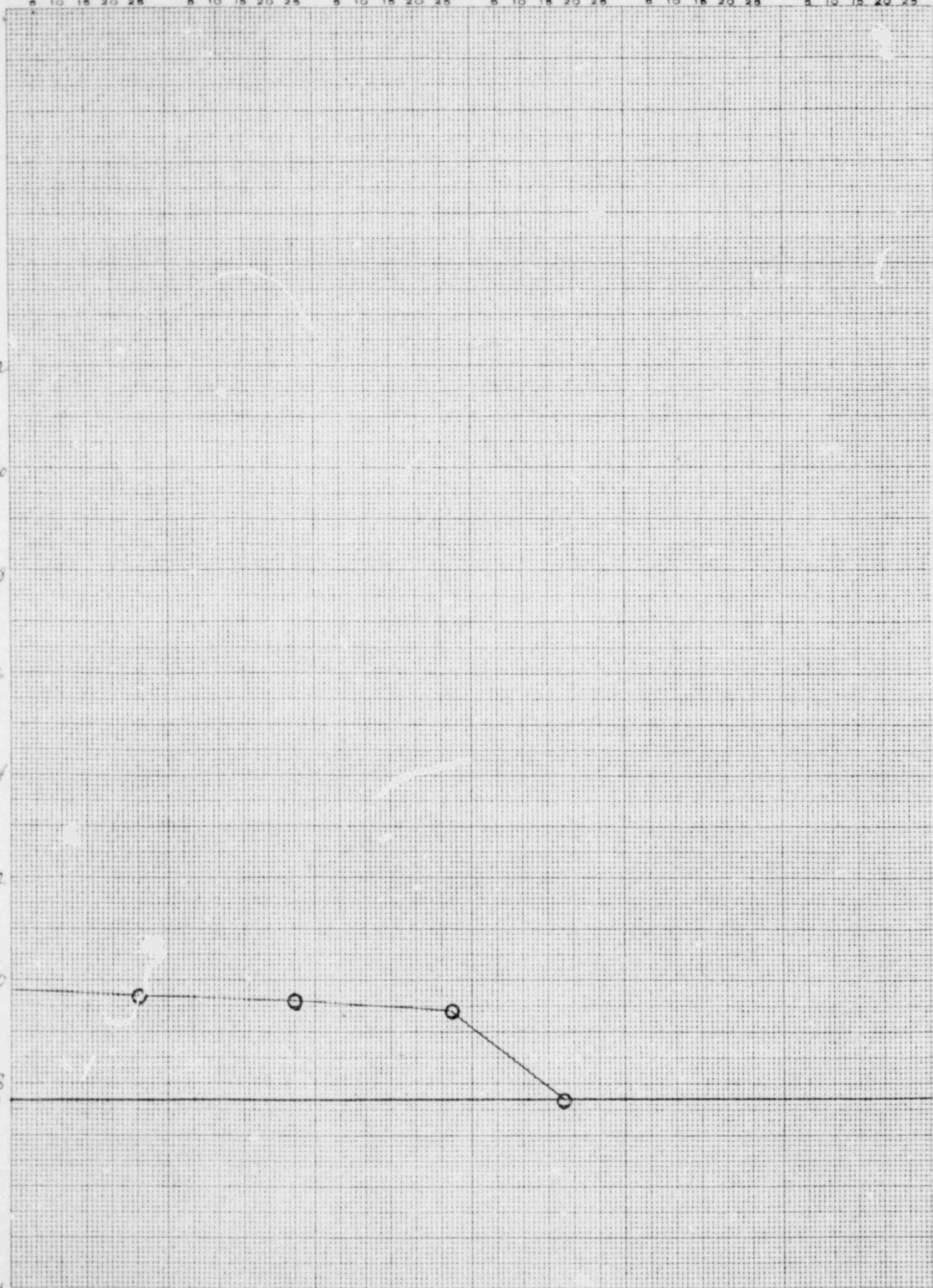
FEBRUARY

MARCH

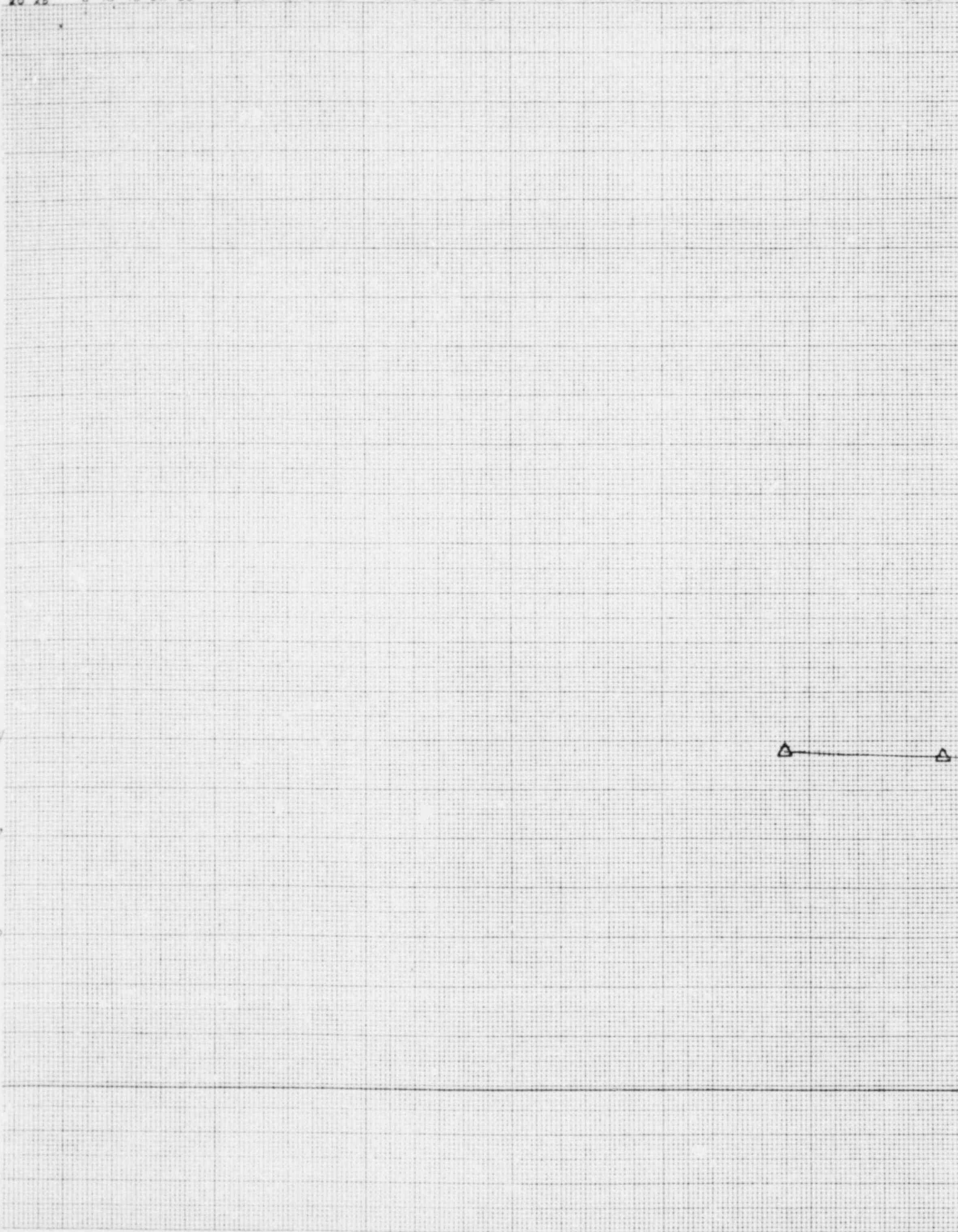
APRIL

MAY

JUNE



JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER



1046

1044

1042

1040

1038

1036

1034

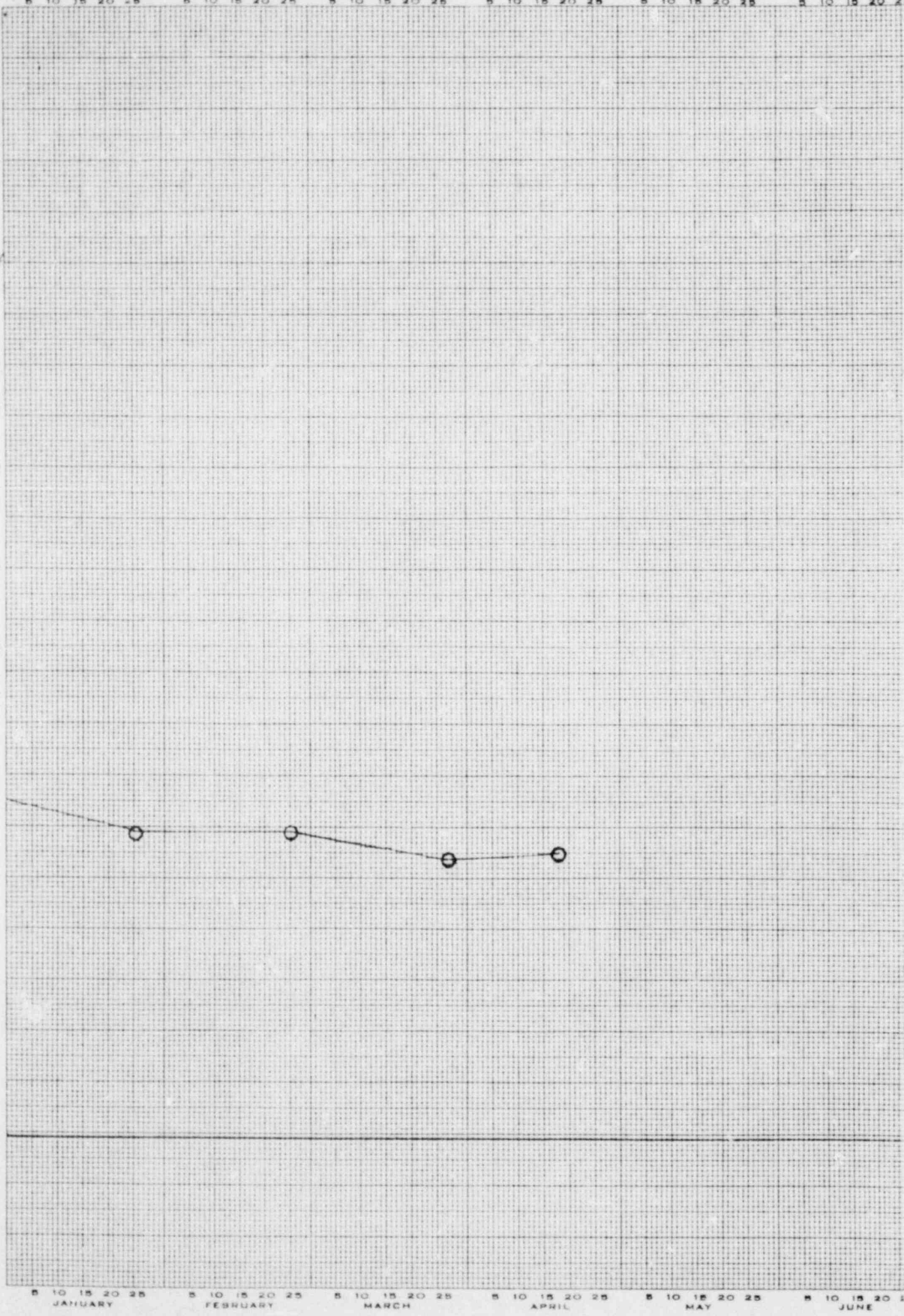
1977 — Δ
1980 — ○

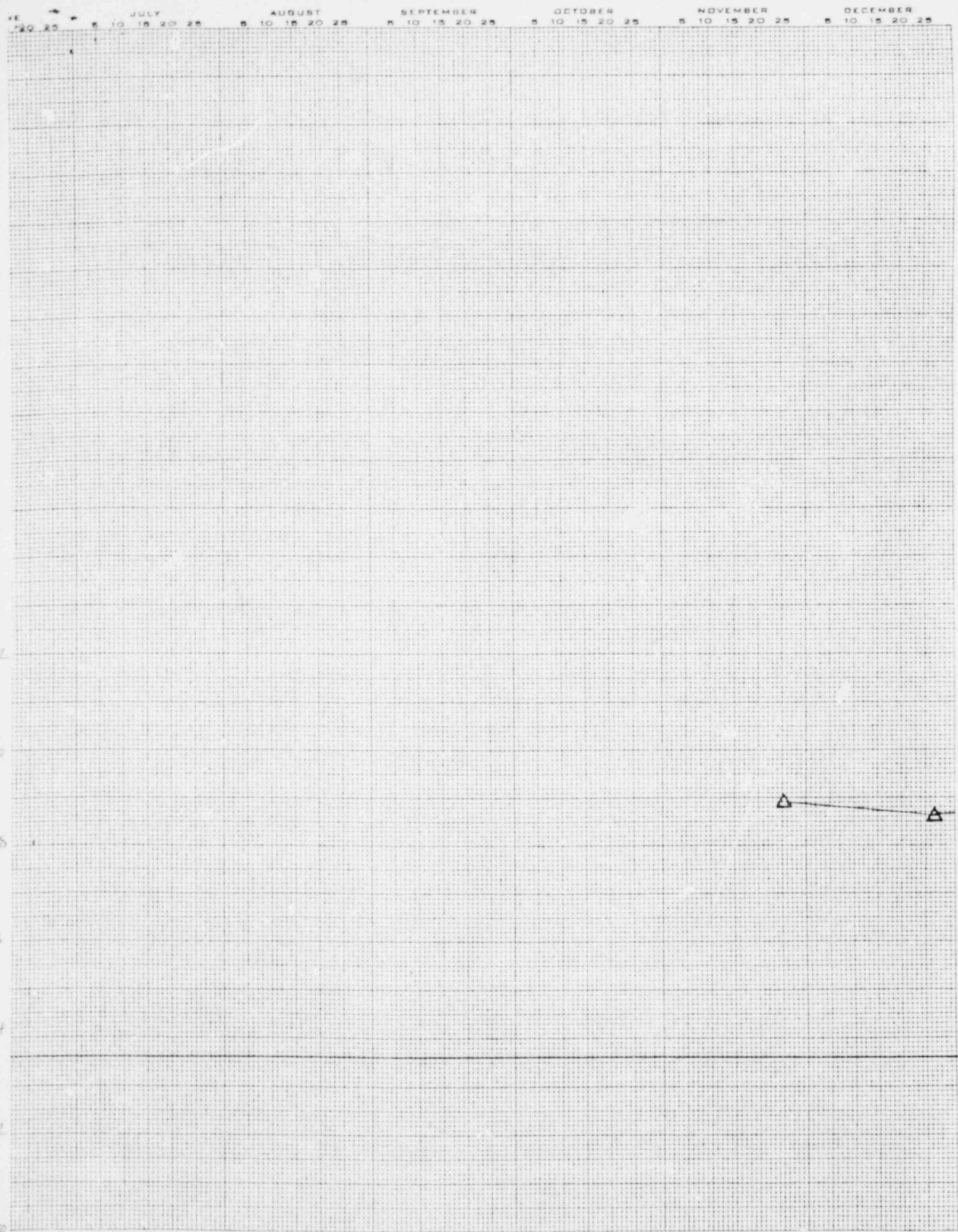
WELL TYPE PIEZOMETER READINGS

WELL # FP-7

JANUARY FEBRUARY MARCH APRIL MAY JUNE
5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25

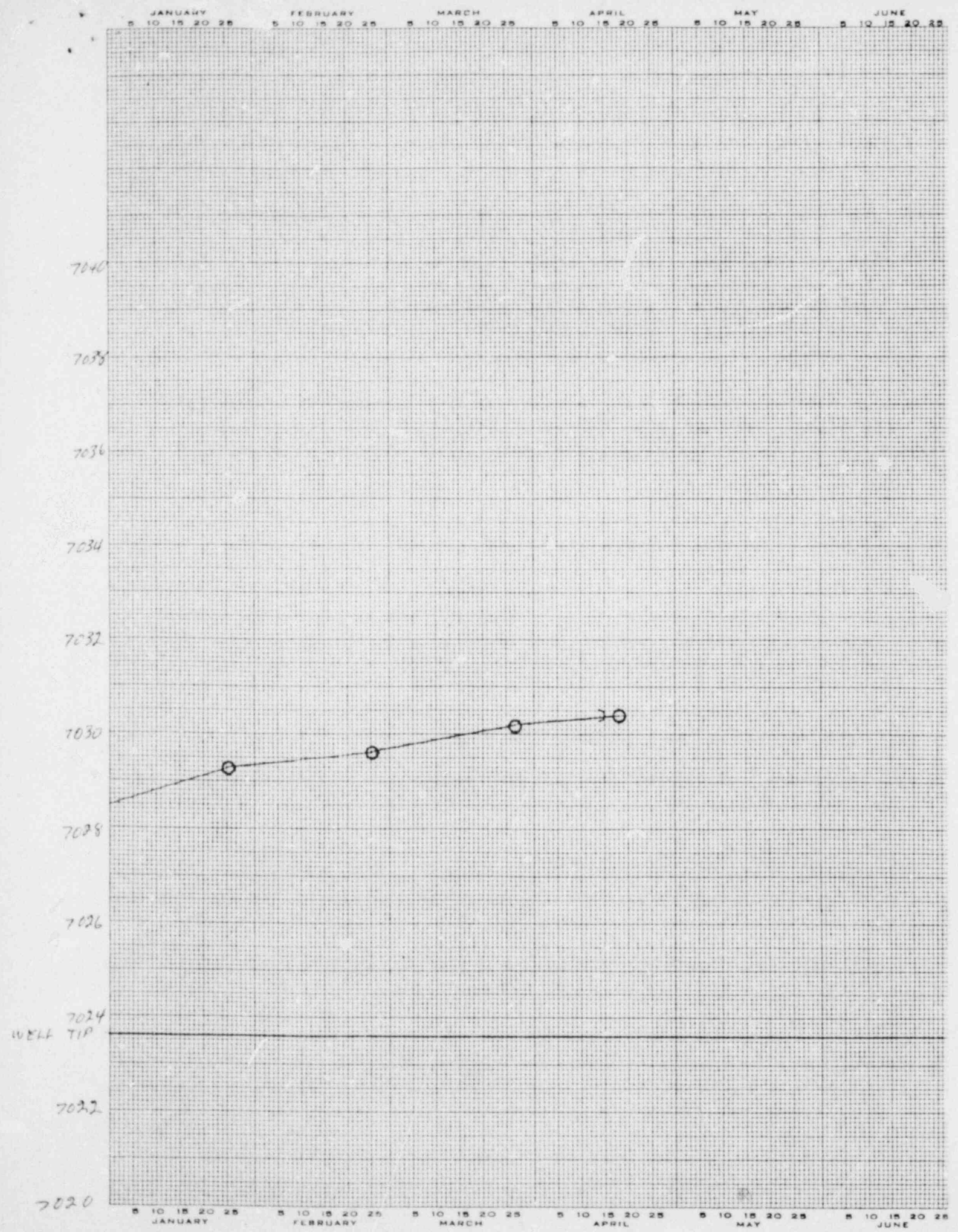
7054
7052
7050
7048
7046
7044
7042
7040
7038
WELL TIP
7036
7034

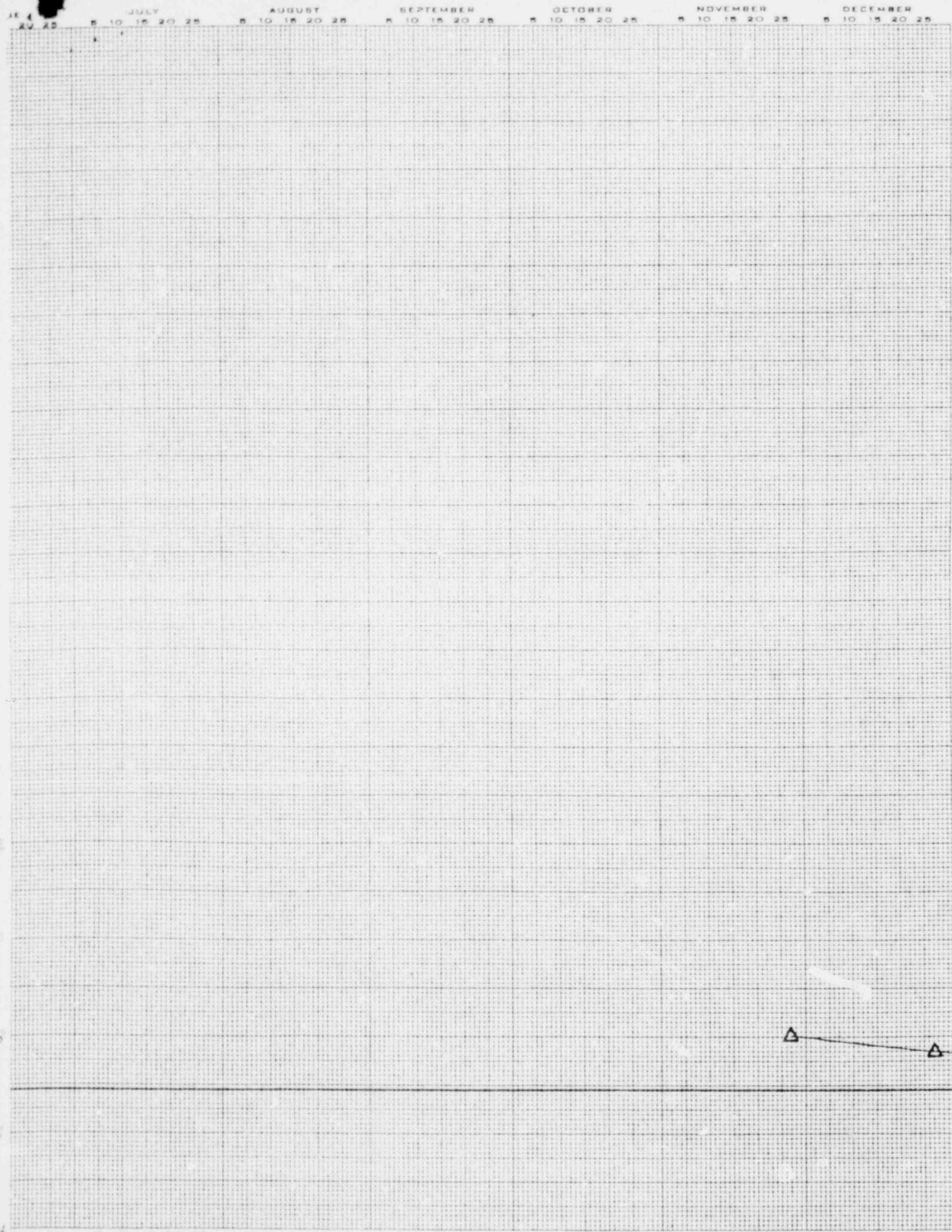




1979 - Δ
 1980 - \circ

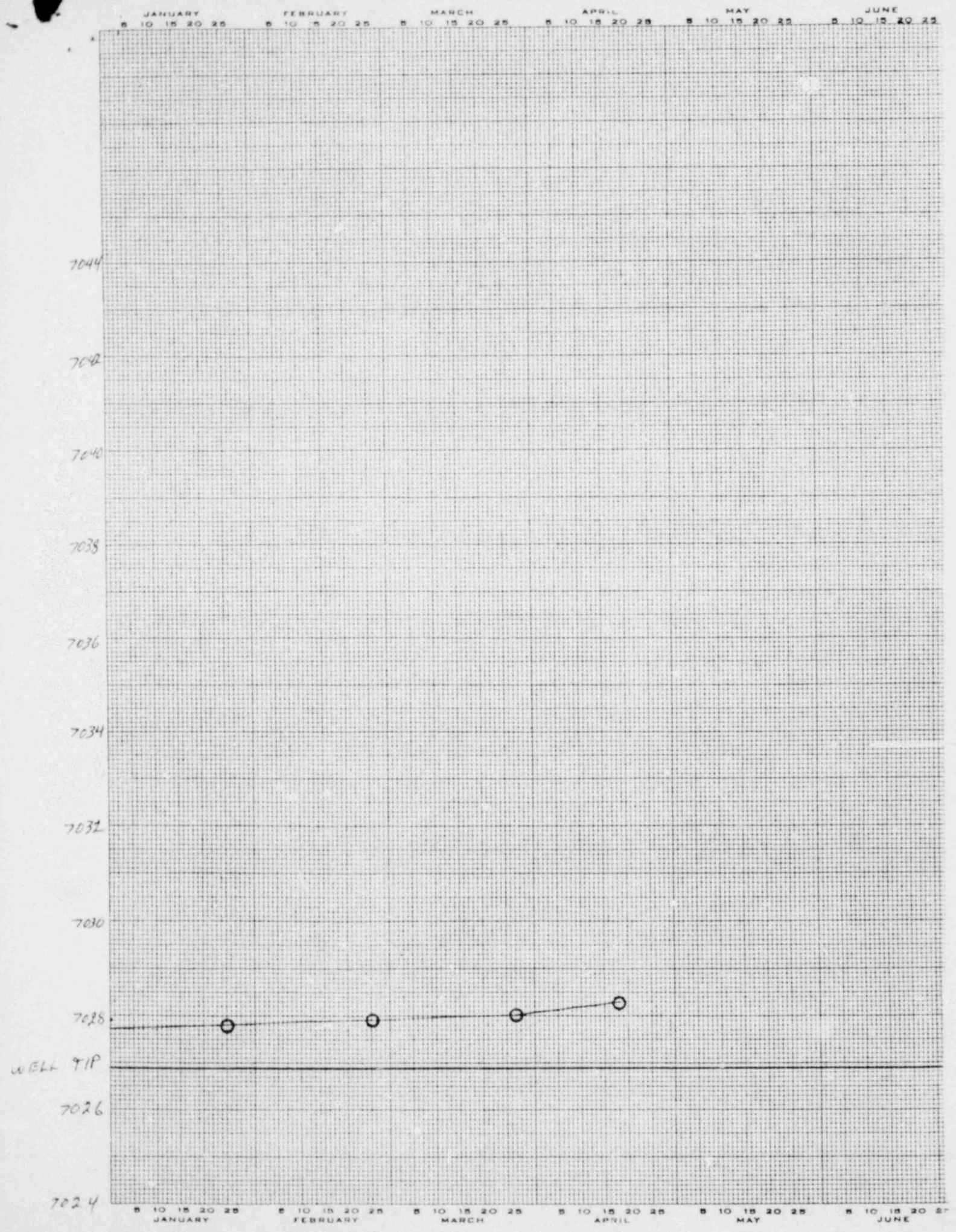
WELL TYPE PIEZOMETER READINGS WELL # FP-8



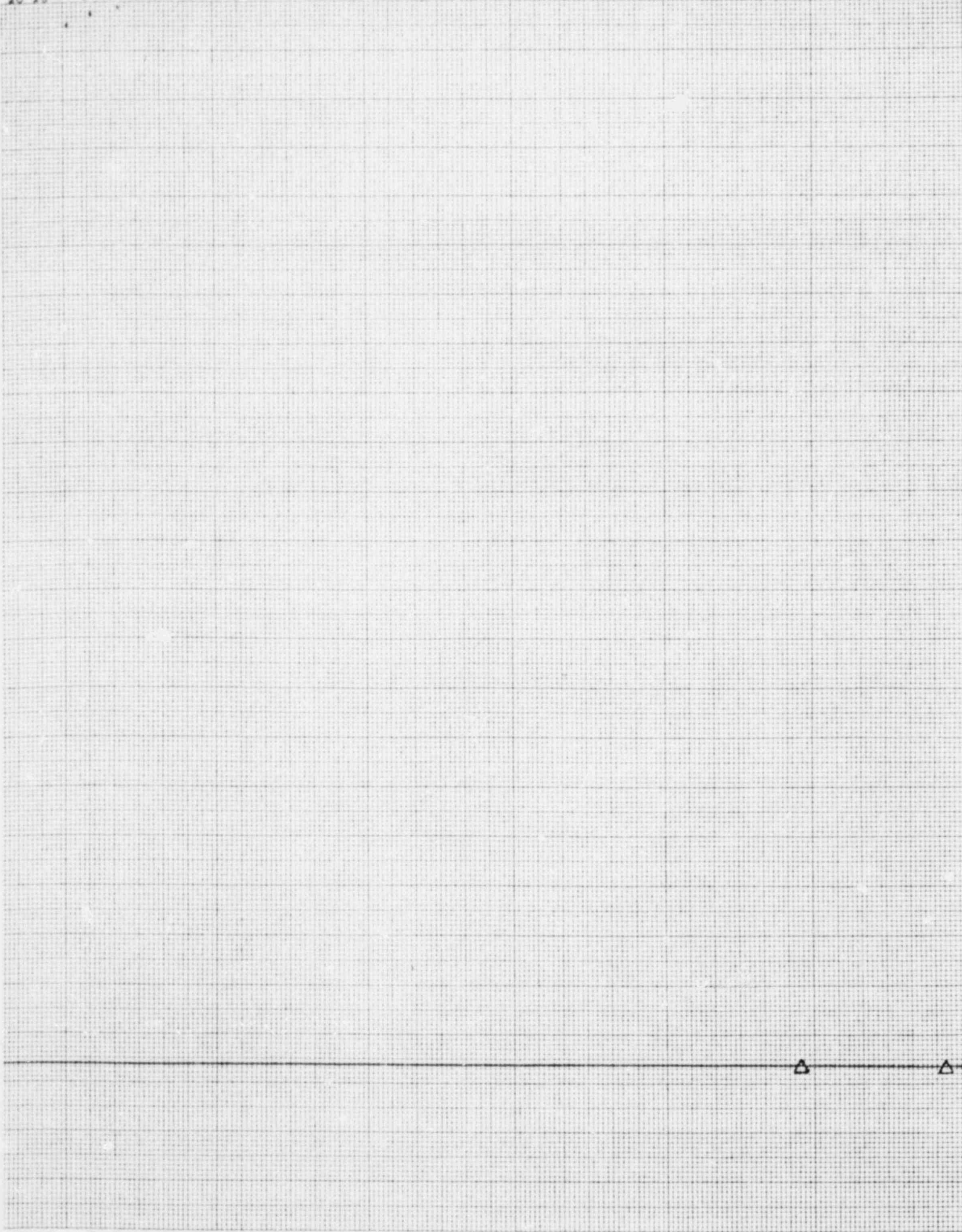


1979 — Δ
 1980 — ○

WELL TYPE PIEZOMETER READINGS WELL # FP-9



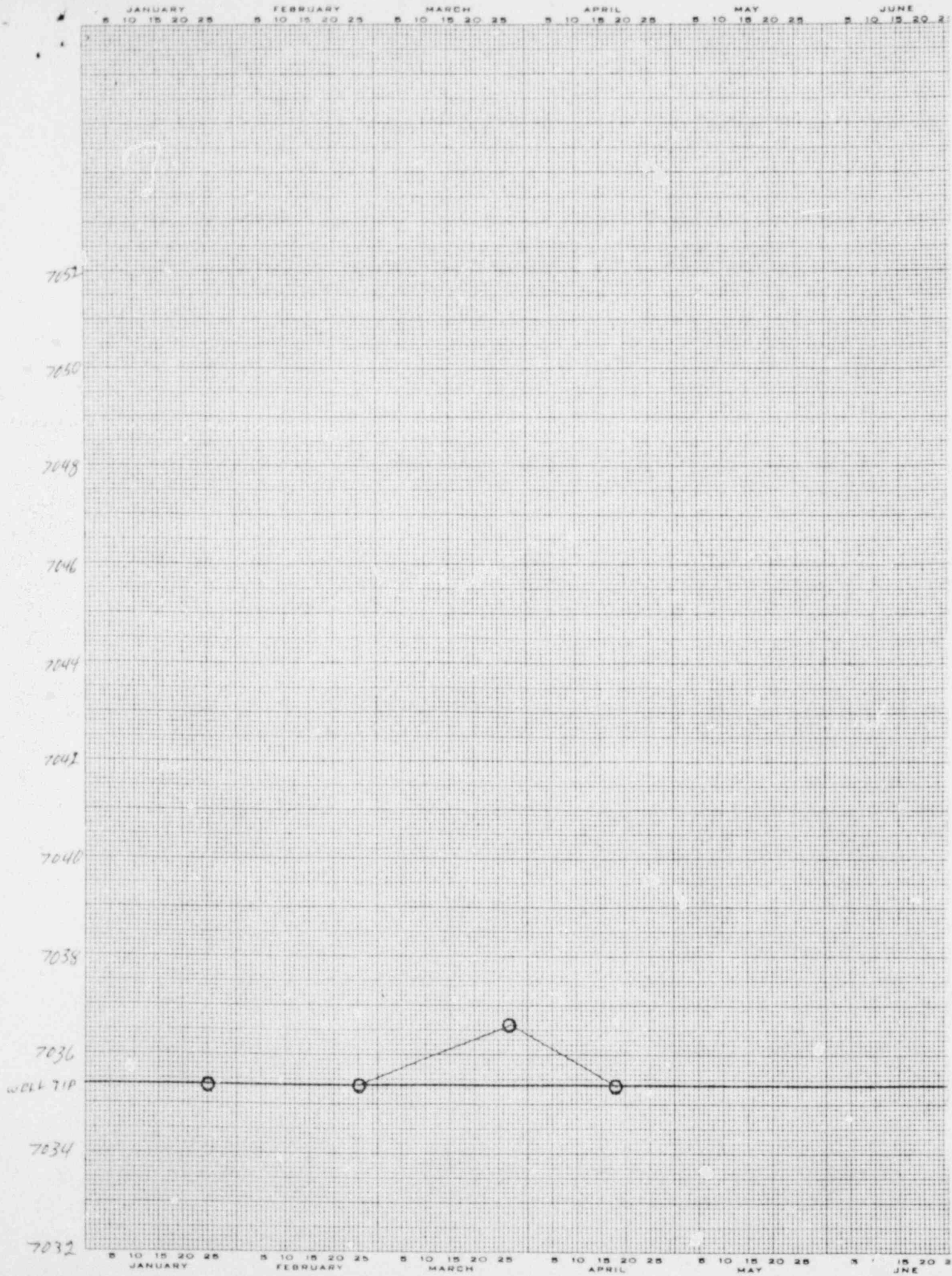
JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER
5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25



20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25 5 10 15 20 25
JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER

1979 - Δ
1980 - ○

WELL TYPE PIEZOMETER READINGS WELL # FP-10



SETTLEMENT PLATE READING

November, 1979

Location	Slurry Trench Bulb (gr)	10' Horizontal Offset bulb (blk)
25+00	112"	110"
46+00	*	*
55+00	75"	62"

* Settlement Sensor not operating at this time.

SETTLEMENT PLATE READING

December, 1979

Location	Slurry Trench Bulb (gr)	10' Horizontal Offset bulb (blk)
25+00	112"	110"
46+00	*	*
55+00	75.5"	62.5"

* Settlement Sensor not operating at this time.

SETTLEMENT PLATE READING

January, 1980

Loaction	Slurry Trench Bulb (gr)	10' Horizontal Offset bulb (blk)
25+00	112.0"	75.5"
46+00	*	*
55+00	75.5"	62.5"

*Settlement sensor inoperative at this time.

SETTLEMENT PLATE READING

February, 1980

Location	Slurry Trench Bulb (Gr)	10' Horizontal Offset bulb (blk)
25+00	112.5"	110.0"
46+00	*	*
55+00	75.5"	62.5"

*Settlement sensor inoperative at this time

SETTLEMENT PLATE READING

March, 1980

Location	Slurry Trench Bulb (Gr)	10' Horizontal Offset bulb (blk)
25+00	113.5"	110.0"
46+00	*	*
55+00	75	62.5"

*Settlement Sensor inoperative at this time

SETTLEMENT PLATE READING

April, 1980

Location	Slurry Trench Bulb (gr)	10' Horizontal Offset bulb (Blk)
25+00	114"	110.25"
46+00	*	*
55+00	75.75	63.0

*Settlement Sensor inoperative at this time.