

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

GEOHYDROLOGIC DATA ALONG THE SALT-GILA AQUEDUCT OF THE CENTRAL ARIZONA  
PROJECT IN MARICOPA AND PINAL COUNTIES, ARIZONA

By B. L. Wallace, Beth M. Wrege, and Herbert H. Schumann

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Tucson, Arizona

May 1986

UNITED STATES DEPARTMENT OF THE INTERIOR

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CONVERSION FACTORS

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For use of readers who prefer to use metric units, conversion factors for terms used in this report are listed below:

Multiply	By	To obtain
inch (in.)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)

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## ABSTRACT

An investigation of land subsidence and earth fissures along the Salt-Gila aqueduct of the Central Arizona Project is being conducted to identify hazard zones and to provide design data for the aqueduct. Geohydrologic data were collected at 33 test holes drilled along the Salt-Gila aqueduct route in Maricopa and Pinal Counties. Included in the report are maps showing the locations of the aqueduct, test holes, and aquifer-compaction measurement sites. Also included are tables and graphs of water-level measurements.

## INTRODUCTION

Land subsidence and earth fissures caused by ground-water overdraft present geologic hazards in parts of Maricopa and Pinal Counties. Water levels in wells have declined more than 350 ft in Maricopa County where 5.3 ft of land subsidence has been measured near Buckhorn (fig. 1). Differential land subsidence has caused extensive earth fissuring and has damaged engineering structures including railroads, highways, and canals.

The Central Arizona Project (CAP) includes a series of aqueducts and pumping plants under construction by the U.S. Bureau of Reclamation to bring water from the Colorado River into south-central Arizona to help meet water demands and reduce ground-water overdraft. The Salt-Gila aqueduct and associated engineering structures may be subject to the hazards of land subsidence and earth fissures in parts of Maricopa and Pinal Counties (fig. 1).

In the fall of 1977, the U.S. Geological Survey, in cooperation with the U. S. Bureau of Reclamation, began an investigation of land subsidence and earth fissures along the Salt-Gila aqueduct of the CAP to identify hazard zones and to provide design data for the aqueduct. Test drilling and borehole geophysical logging was conducted along the Salt-Gila aqueduct route. This report presents a summary of geohydrologic data collected along the Salt-Gila aqueduct and includes records of 33 test holes that range from 125 to 1,990 ft deep.

Twenty of the test holes were equipped with one or more piezometers (PZ) to allow depth-to-water measurements and to serve as observation wells. At these sites, measurements are made intermittently. Water-level and aquifer-compaction measurements are recorded continuously at five other sites.

## ACKNOWLEDGMENTS

The cooperation and assistance of the U.S. Bureau of Reclamation in the construction and maintenance of test holes and observation wells listed in this report are gratefully acknowledged. U.S. Bureau of Reclamation personnel deserving special mention include Denver L. Smith and his unit for test-hole drilling and observation-well construction, Richard H. Raymond and the late Jay D. Roberts for liaison between the Bureau and the Geological Survey, and Gregory K. Pedersen for assistance in data collection and data reduction. The assistance of the U.S. Geological Survey Computer Services Section in Tucson, Arizona, is acknowledged for data entry, computer-program development, and special efforts necessary for the production of this report.

## GEOHYDROLOGIC DATA

The location of the Salt-Gila aqueduct route is shown in figure 1. Locations of test holes and aquifer-compaction measurement sites are shown in figure 2. A diagram of a multiple-piezometer installation used to measure water levels is shown in figure 3. Hydrographs showing water levels in piezometers are shown in figures 4-23.

Data for each test hole including local identifier, local number, reach number, county, land-surface altitude, date of completion, depth drilled, casing information, and number of geophysical logs are given in table 1. Dates and depth-to-water measurements in test holes equipped with piezometers or casings are given in tables 2-21.

## Well-Numbering System in Arizona

The records are arranged sequentially by township, range, and section under the well-numbering system used in Arizona in accordance with the Bureau of Land Management's system of land subdivision. The land survey in Arizona is based on the Gila and Salt River meridian and base line which divide the State into four quadrants. These quadrants are designated counterclockwise by the letters A, B, C, and D. All

land north and east of the point of origin is in A quadrant, and that south and east in D quadrant. The first digit indicates the township, the second the range, and the third the section. The first letter following the section number denotes a particular 160-acre tract, the second the 40-acre tract, and the third the 10-acre tract. These letters also are assigned in a counterclockwise direction, beginning in the northeast quarter. If the location is known within the 10-acre tract, three letters are shown in the well/test hole number. For example, test-hole number (D-02-08)02CBB designates the test hole as being in the NW1/4NW1/4SW1/4 sec. 2, T. 2 S., R. 8 E. Where more than one well is within a 10-acre tract, consecutive numbers beginning with 1 are added as suffixes.



INDEX MAP SHOWING  
AREA OF REPORT (SHADED)

Figure 1.--Location of study area.



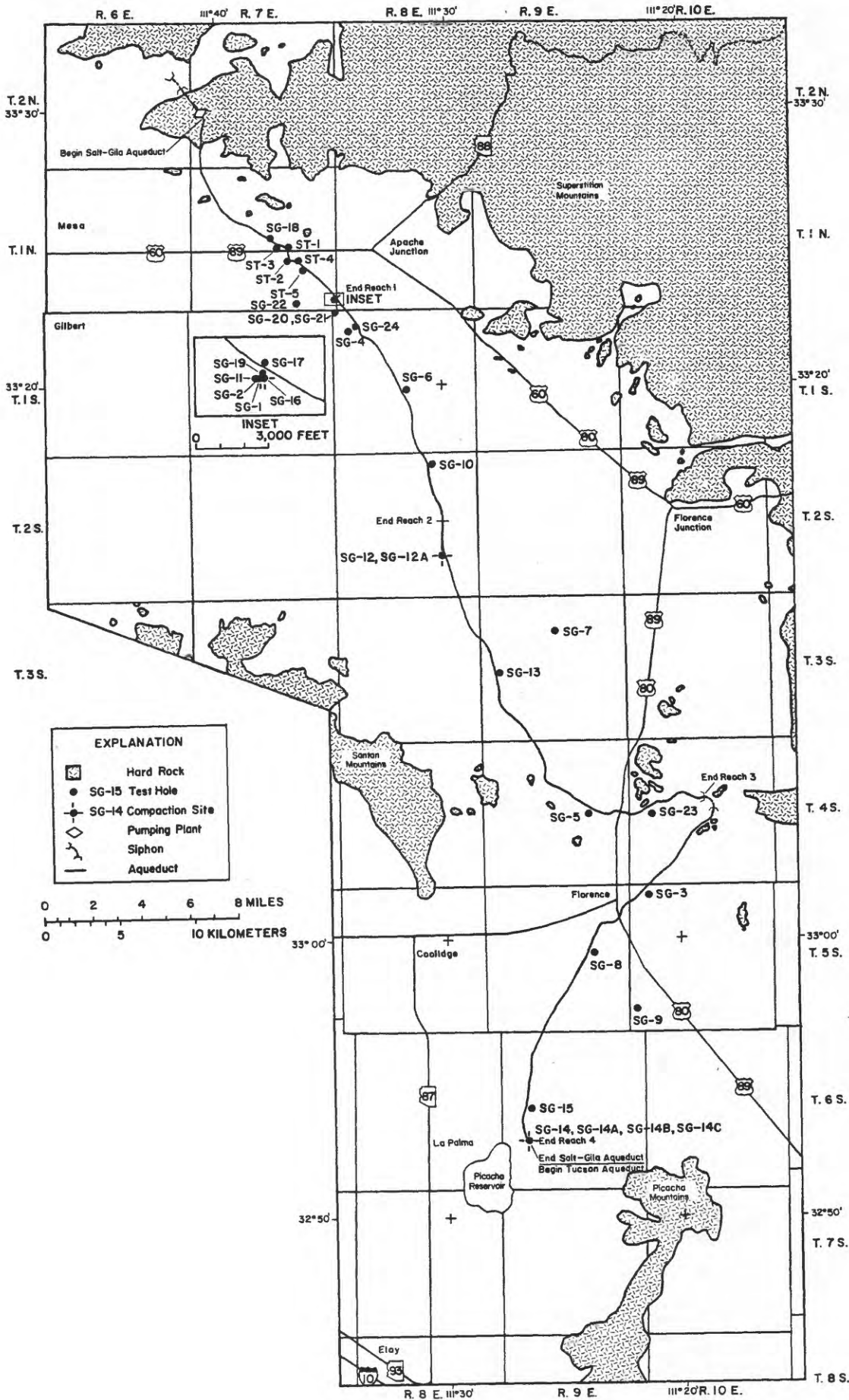


Figure 2.--Location of test holes along the Salt-Gila aqueduct.

Table 1.--Record of test holes along the Salt-Gila Aqueduct

LOCAL IDENTIFIER	LOCAL NUMBER	REACH	COUNTY	ALTITUDE OF LAND SURFACE (FEET)	DATE WELL CONSTRUCTED	DEPTH DRILLED (FEET)	BOTTOM OF CASING (FEET)	DIAMETER OF CASING (IN)	TOP OF OPEN INTERVAL (FEET)	NUMBER OF GEOPHYSICAL LOGS
SG-01	A-01-07 36DAA1	1	MARICOPA	1570	10/25/1977	1320	1280	6.00	632	3
SG-02	A-01-07 36DAA2	1	MARICOPA	1570	11/17/1977	1280	20	8.00	20	3
SG-02 PZ1	A-01-07 36DAA2 PZ1	1	MARICOPA	1570	11/17/1977	--	1240	1.25	1230	-
SG-02 PZ2	A-01-07 36DAA2 PZ2	1	MARICOPA	1570	11/17/1977	--	932	1.50	924	-
SG-02 PZ3*	A-01-07 36DAA2 PZ3	1	MARICOPA	1570	11/17/1977	--	599	1.25	591	-
SG-03	D-05-10 06ABC	4	PINAL	1545	11/23/1977	1170	20	8.00	20	6
SG-03 PZ1	D-05-10 06ABC PZ1	4	PINAL	1545	11/23/1977	--	513	1.25	504	-
SG-03 PZ2	D-05-10 06ABC PZ2	4	PINAL	1545	11/23/1977	--	219	1.25	210	-
SG-04	D-01-08 06DDA	2	PINAL	1570	12/05/1977	350	35	8.00	35	3
SG-04 PZ1	D-01-08 06DDA PZ1	2	PINAL	1570	12/05/1977	--	345	1.25	338	-
SG-05	D-04-09 15BAB2	3	PINAL	1570	12/09/1977	613	16	6.00	16	4
SG-05 PZ1	D-04-09 15BAB2 PZ1	3	PINAL	1570	12/09/1977	--	499	1.25	491	-
SG-06	D-01-08 21ADB	2	PINAL	1565	03/22/1978	1770	20	6.00	20	5
SG-06 PZ1	D-01-08 21ADB PZ1	2	PINAL	1565	03/22/1978	--	830	1.25	806	-
SG-06 PZ2	D-01-08 21ADB PZ2	2	PINAL	1565	03/22/1978	--	470	1.25	461	-
SG-07	D-03-09 09DCD	3	PINAL	1630	01/16/1978	1490	20	6.00	20	5
SG-07 PZ1	D-03-09 09DCD PZ1	3	PINAL	1630	01/16/1978	--	1160	1.25	1150	-
SG-07 PZ2	D-03-09 09DCD PZ2	3	PINAL	1630	01/16/1978	--	681	1.25	672	-
SG-08	D-05-09 14CAC	4	PINAL	1545	02/24/1978	1600	15	6.00	15	7
SG-08 PZ1	D-05-09 14CAC PZ1	4	PINAL	1545	02/24/1978	--	1360	1.25	1350	-
SG-08 PZ2	D-05-09 14CAC PZ2	4	PINAL	1545	02/24/1978	--	1100	1.25	1090	-
SG-08 PZ3	D-05-09 14CAC PZ3	4	PINAL	1545	02/24/1978	--	702	1.25	698	-
SG-09	D-05-10 31BBA	4	PINAL	1655	04/12/1978	828	10	6.00	10	7
SG-09 PZ1	D-05-10 31BBA PZ1	4	PINAL	1655	04/12/1978	--	709	1.25	700	-
SG-09 PZ2	D-05-10 31BBA PZ2	4	PINAL	1655	04/12/1978	--	489	1.25	480	-
SG-09 PZ3	D-05-10 31BBA PZ3	4	PINAL	1655	04/12/1978	--	427	1.25	417	-
SG-10	D-02-08 02CBB	2	PINAL	1575	04/26/1978	1600	10	6.00	10	7
SG-10 PZ1	D-02-08 02CBB PZ1	2	PINAL	1575	04/26/1978	--	1520	1.50	1510	-
SG-10 PZ2*	D-02-08 02CBB PZ2	2	PINAL	1572	04/26/1978	--	864	1.25	855	-
SG-10 PZ3	D-02-08 02CBB PZ3	2	PINAL	1575	04/26/1978	--	515	1.25	504	-
SG-11	A-01-07 36DAA3	1	MARICOPA	1570	03/30/1978	600	10	8.00	10	-
SG-11 PZ1	A-01-07 36DAA3 PZ1	1	MARICOPA	1570	03/30/1978	--	600	1.50	595	-
SG-11 PZ2	A-01-07 36DAA3 PZ2	1	MARICOPA	1570	03/30/1978	--	503	1.25	492	-
SG-12	D-02-08 26CAD1	3	PINAL	1570	07/11/1978	1990	20	8.00	20	5
SG-12 PZ1	D-02-08 26CAD1 PZ1	3	PINAL	1570	07/11/1978	--	1540	1.25	1540	-
SG-12 PZ2	D-02-08 26CAD1 PZ2	3	PINAL	1570	07/11/1978	--	1200	1.25	1190	-
SG-12 PZ3	D-02-08 26CAD1 PZ3	3	PINAL	1570	07/11/1978	--	701	1.25	693	-

\* piezometer plugged

Table 1.--Record of test holes along the Salt-Gila Aqueduct--continued

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LOCAL IDENTIFIER	LOCAL NUMBER	REACH	COUNTY	ALTITUDE OF LAND SURFACE (FEET)	DATE WELL CONSTRUCTED	DEPTH DRILLED (FEET)	BOTTOM OF CASING (FEET)	DIAMETER OF CASING (IN)	TOP OF OPEN INTERVAL (FEET)	NUMBER OF GEOPHYSICAL LOGS
SG-12A	D-02-08 26CAD2	3	PINAL	1570	06/24/1979	1800	1790	6.00	1710	-
SG-13	D-03-09 19CBD	3	PINAL	1555	04/26/1979	1533	9	8.00	9	4
SG-13 PZ1	D-03-09 19CBD PZ1	3	PINAL	1555	04/26/1979	--	1040	1.25	1030	-
SG-13 PZ2	D-03-09 19CBD PZ2	3	PINAL	1555	04/26/1979	--	770	1.25	761	-
SG-13 PZ3	D-03-09 19CBD PZ3	3	PINAL	1555	04/26/1979	--	659	1.25	650	-
SG-14	D-06-09 29BBA1	4	PINAL	1540	08/15/1978	1810	10	8.00	10	5
SG-14 PZ1	D-06-09 29BBA1 PZ1	4	PINAL	1540	08/15/1978	--	1200	1.25	1195	-
SG-14 PZ2	D-06-09 29BBA1 PZ2	4	PINAL	1540	08/15/1978	--	625	1.25	620	-
SG-14A	D-06-09 29BBA2	4	PINAL	1540	05/10/1979	1150	1130	6.00	1110	-
SG-14B	D-06-09 29BBA3	4	PINAL	1540	05/30/1979	800	20	8.00	20	-
SG-14B PZ1	D-06-09 29BBA3 PZ1	4	PINAL	1540	05/30/1979	--	780	2.00	771	-
SG-14C	D-06-09 29BBA4	4	PINAL	1540	08/03/1979	1520	1490	6.00	1490	5
SG-15	D-06-09 17BAB	4	PINAL	1545	08/23/1978	1500	4	8.00	4	5
SG-15 PZ1	D-06-09 17BAB PZ1	4	PINAL	1545	08/23/1978	--	1030	1.25	1020	-
SG-15 PZ2	D-06-09 17BAB PZ2	4	PINAL	1545	08/23/1978	--	468	1.25	462	-
SG-16	A-01-07 36DAA1	1	MARICOPA	1570	09/26/1978	652	638	6.00	638	-
SG-17	A-01-07 36ADD1	1	MARICOPA	1575	09/19/1978	1800	20	8.00	220	7
SG-17 PZ1	A-01-07 36ADD1 PZ1	1	MARICOPA	1575	09/19/1978	--	1520	1.25	1490	-
SG-17 PZ2	A-01-07 36ADD1 PZ2	1	MARICOPA	1575	09/19/1978	--	1060	1.25	1030	-
SG-17 PZ3	A-01-07 36ADD1 PZ3	1	MARICOPA	1575	09/19/1978	--	655	1.25	651	-
SG-18	A-01-07 15CDC	1	MARICOPA	1570	10/05/1978	574	12	6.00	12	5
SG-18 PZ1	A-01-07 15CDC PZ1	1	MARICOPA	1570	10/05/1978	--	562	1.25	558	-
SG-19	A-01-07 36ADD2	1	MARICOPA	1570	10/30/1978	1350	860	2.00	860	-
SG-20	D-01-08 06EBBB	2	PINAL	1550	10/06/1978	125	--	--	--	-
SG-21	D-01-08 06WAAA	2	PINAL	1550	10/17/1978	553	510	4.00	273	6
SG-22	A-01-07 35ACC	1	MARICOPA	1520	11/28/1978	1690	19	6.00	19	6
SG-22 PZ1	A-01-07 35ACC PZ1	1	MARICOPA	1520	11/28/1978	--	1230	1.25	1200	-
SG-22 PZ2	A-01-07 35ACC PZ2	1	MARICOPA	1520	11/28/1978	--	911	1.25	903	-
SG-22 PZ3	A-01-07 35ACC PZ3	1	MARICOPA	1520	11/28/1978	--	618	1.25	609	-
SG-23	D-04-10 18DCD	3	PINAL	1565	04/13/1979	1560	20	8.00	20	5
SG-23 PZ1	D-04-10 18DCD PZ1	3	PINAL	1565	04/13/1979	--	1260	1.25	1250	-
SG-23 PZ2	D-04-10 18DCD PZ2	3	PINAL	1565	04/13/1979	--	588	1.25	580	-
SG-24	D-01-08 05CCC	2	PINAL	1560	12/17/1980	453	382	4.00	382	-

Table 1.--Record of test holes along the Salt-Gila Aqueduct--continued

LOCAL IDENTIFIER	LOCAL NUMBER	REACH	COUNTY	ALTITUDE OF LAND SURFACE (FEET)	DATE WELL CONSTRUCTED	DEPTH DRILLED (FEET)	BOTTOM OF CASING (FEET)	DIAMETER OF CASING (IN)	TOP OF OPEN INTERVAL (FEET)	NUMBER OF GEOPHYSICAL LOGS
ST-01	A-01-07 22ABD	1	MARICOPA	1575	04/22/1980	891	20	8.00	20	6
ST-02	A-01-07 23BCC	1	MARICOPA	1572	03/18/1980	825	825	2.00	-	-
ST-03	A-01-07 23CCD	1	MARICOPA	1560	02/21/1980	870	20	6.00	20	1
ST-04	A-01-07 23CDD	1	MARICOPA	1570	02/05/1980	870	20	2.00	-	1
ST-05	A-01-07 26ABD	1	MARICOPA	1565	05/14/1980	1110	20	8.00	20	1

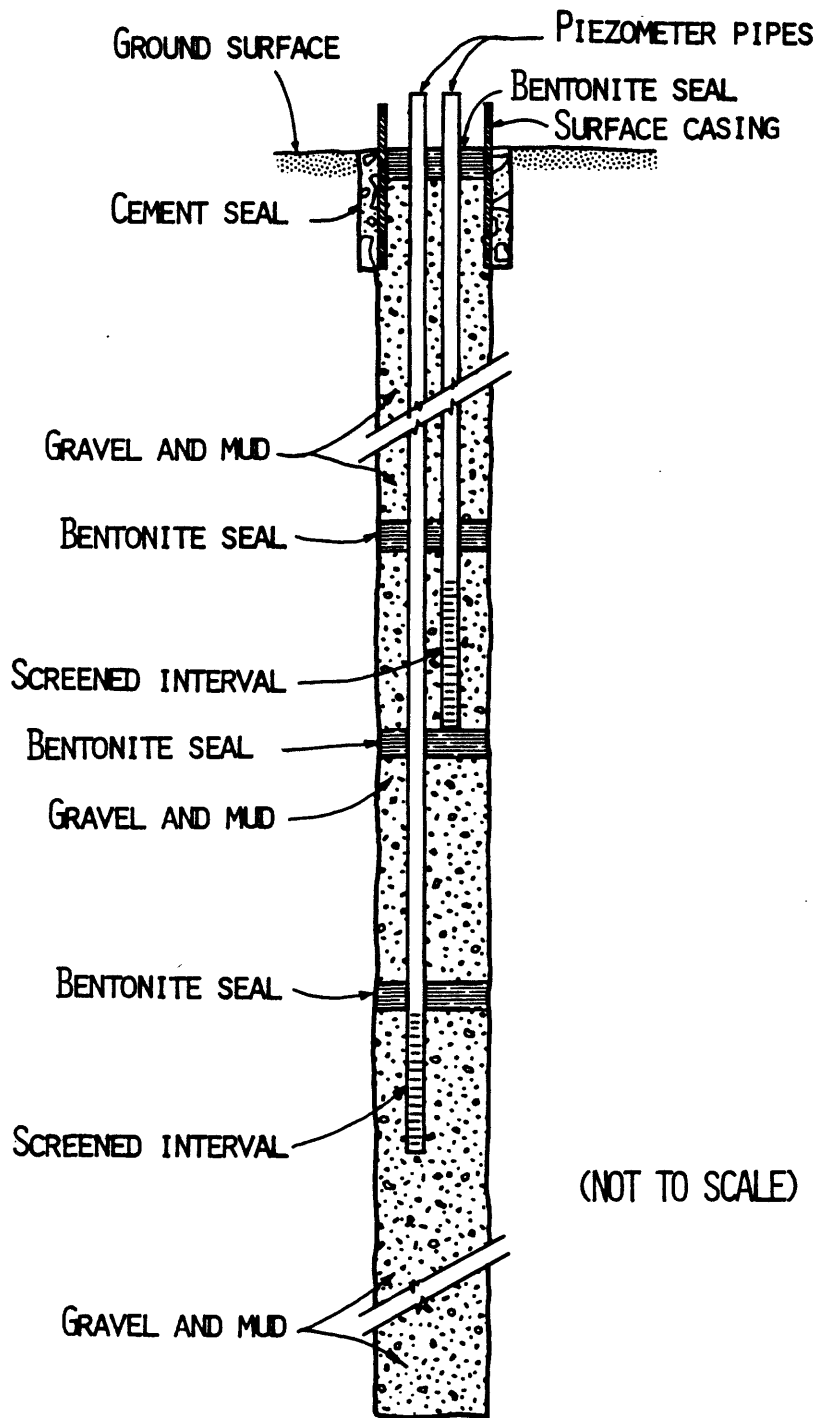


Figure 3.--Multiple-piezometer installation.

Table 2.--Water levels, in feet below land surface, in piezometers at test hole SG-02.

Test Hole	SG-02	(A-01-07)360AA2PZ1	Site Id 332308111345001
DATE	WATER LEVEL	DATE	WATER LEVEL
4/11/1978	461.8	6/30/1980	476.2
4/26/1978	472.0	7/24/1980	476.4
6/16/1978	464.8	9/23/1980	476.7
6/21/1978	464.6	10/24/1980	476.4
6/29/1978	463.9	11/21/1980	476.4
7/11/1978	465.4	12/23/1980	476.2
7/12/1978	465.2	1/27/1981	477.1
7/17/1978	471.8	2/27/1981	477.3
1/17/1980	471.6	3/26/1981	478.6
2/11/1980	471.5	4/28/1981	479.1
3/21/1980	470.7	5/26/1981	480.5
4/17/1980	471.6	6/23/1981	481.2
5/23/1980	473.6	7/24/1981	481.5
8/26/1981	482.8	8/26/1981	482.8
8/29/1983	488.7	9/22/1981	483.4
11/28/1983	489.5	1/18/1982	476.7
1/27/1984	497.6	2/16/1982	476.4
2/23/1984	498.5	3/24/1982	476.4
6/25/1984	489.7	4/22/1982	476.2
11/27/1984	490.7	5/17/1982	477.1
2/20/1985	493.0	6/22/1982	477.3
4/20/1985	494.6	7/19/1982	478.6
5/21/1985	495.8	8/19/1982	479.1
		9/20/1982	480.5
		10/21/1982	481.2
		1/26/1983	481.5

Test Hole	SG-02	(A-01-07)360AA2PZ2	Site Id 332308111345002
DATE	WATER LEVEL	DATE	WATER LEVEL
4/11/1978	468.4	7/24/1980	483.4
4/26/1978	481.3	9/23/1980	484.3
6/21/1978	470.8	10/24/1980	483.4
7/12/1978	471.6	11/21/1980	483.4
7/17/1978	475.9	12/23/1980	483.3
12/ 6/1979	478.3	1/27/1981	484.1
12/20/1979	478.8	1/27/1981	484.1
2/11/1980	478.3	2/27/1981	484.0
3/21/1980	477.7	3/26/1981	484.2
4/17/1980	479.3	4/29/1981	486.4
5/23/1980	480.2	5/26/1981	487.4
6/30/1980	483.3	6/23/1981	488.7
10/21/1982	488.6	7/24/1981	488.6
1/26/1983	493.3	8/26/1981	489.8
4/29/1983	494.1	9/22/1981	490.6
8/21/1983	495.0	1/18/1982	489.2
11/28/1983	493.2	2/16/1982	489.8
1/27/1984	514.9	3/24/1982	489.6
2/23/1984	495.7	4/22/1982	490.3
6/25/1984	496.9	5/17/1982	491.6
11/27/1984	498.2	5/17/1982	491.6
2/20/1985	500.7	6/22/1982	495.0
5/21/1985	502.1	7/19/1982	493.2
		8/19/1982	494.1
		9/20/1982	494.5

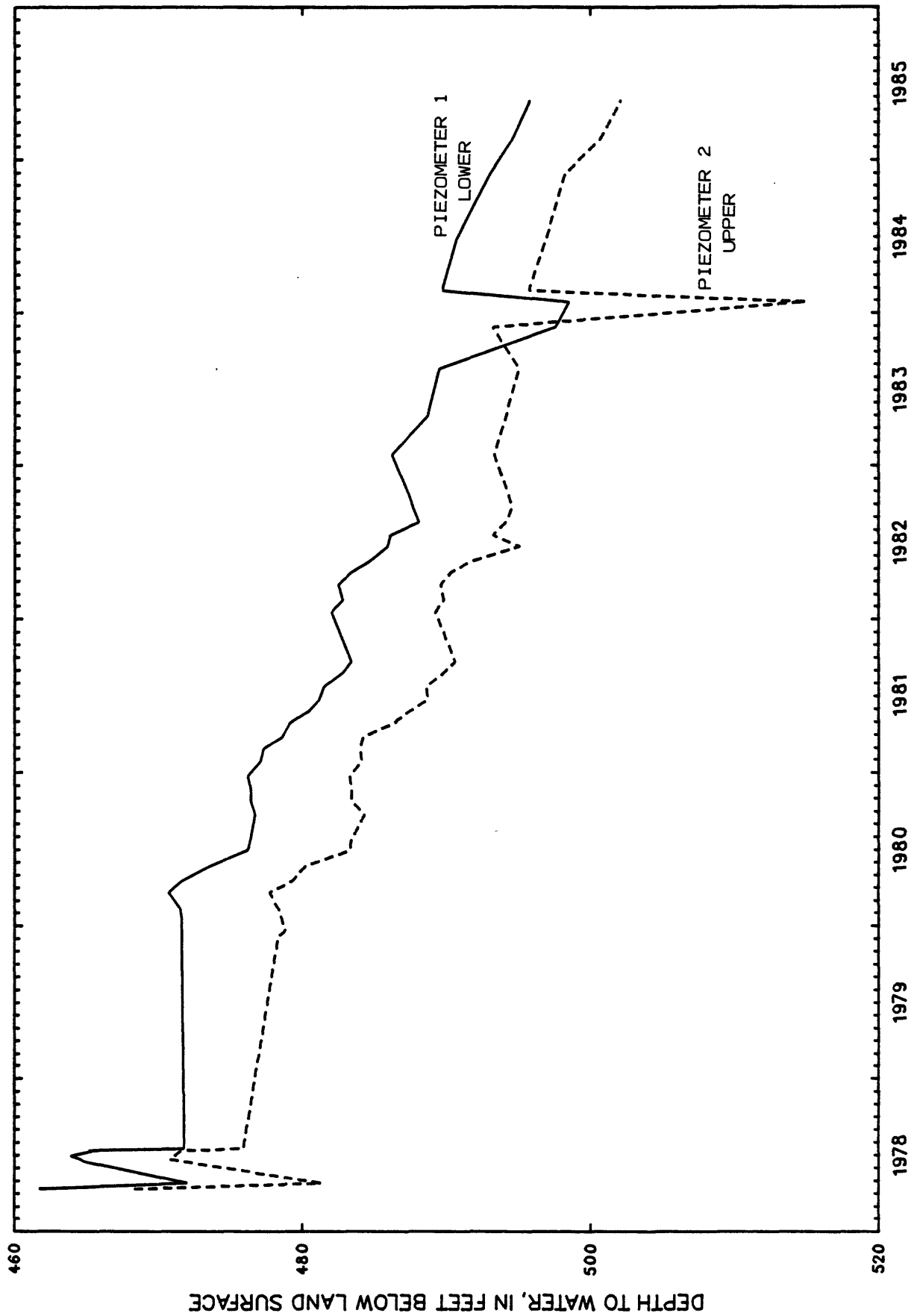


Figure 4.—Water level in piezometers at test hole SG-02 (A-01-07)36DAA2.

Table 3.--Water levels, in feet below land surface, in piezometers at test hole SG-03.

Test Hole	SG-03	(D-05-10)06ABCPZ1	Site Id 330136111214301
DATE	WATER LEVEL	DATE	WATER LEVEL
3/21/1978	246.1	3/13/1980	236.4
2/21/1979	247.3	4/23/1980	235.1
3/28/1979	247.0	5/22/1980	234.7
5/ 2/1979	245.4	6/23/1980	234.5
7/ 9/1979	242.8	7/28/1980	235.2
8/10/1979	241.6	9/19/1980	231.9
9/14/1979	240.3	10/22/1980	230.9
10/24/1979	240.1	11/19/1980	230.2
2/12/1980	237.5	12/19/1980	229.0
		1/23/1981	229.4
		2/24/1981	229.5
		3/24/1981	228.6
		4/23/1981	230.4
		5/21/1981	230.7
		8/20/1981	233.7
		12/22/1981	232.0
		1/21/1982	231.0
		10/28/1982	238.2
		1/27/1983	235.9
		8/23/1983	237.7
		10/25/1983	236.4
		11/29/1983	236.3
		1/24/1984	231.4
		6/20/1984	233.1

Test Hole	SG-03	(D-05-10)06ABCPZ2	Site Id 330136111214302
DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	169.1	3/13/1980	179.8
3/28/1979	170.7	4/23/1980	180.1
5/ 2/1979	172.3	5/22/1980	181.2
7/ 9/1979	173.9	6/23/1980	182.3
8/10/1979	175.3	7/28/1980	184.4
9/14/1979	175.3	9/19/1980	182.9
10/24/1979	176.5	10/22/1980	182.9
2/12/1980	179.7	11/19/1980	183.2
		12/19/1980	183.1
		1/23/1981	183.8
		2/24/1981	184.7
		3/24/1981	183.9
		4/24/1981	184.8
		5/21/1981	181.6
		8/20/1981	186.0
		12/22/1981	186.6
		1/21/1982	186.7
		10/28/1982	188.8
		1/27/1983	189.5
		8/23/1983	191.4
		10/25/1983	189.6



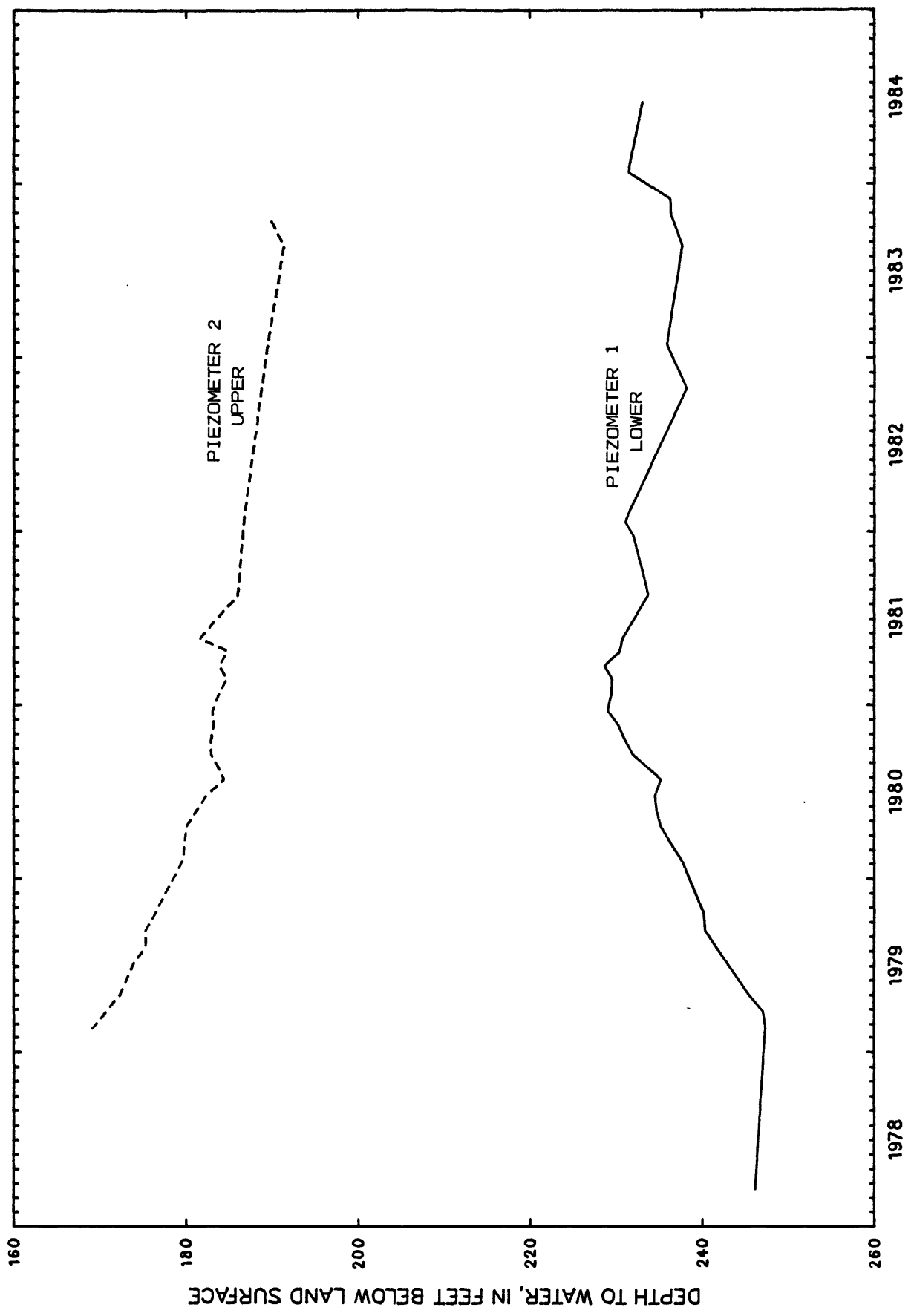


Figure 5.—Water levels in piezometers at test hole SG-03 (D-05-10)06ABC.

Table 4.--Water levels, in feet below land surface, in piezometer at test hole SG-05.

Test Hole	SG-05	(D-04-09)15BAB2PZ1	Site Id 33051511245601				
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL		
4/21/1978	332.9	4/22/1980	339.5	3/24/1981	338.3	10/25/1983	336.7
2/21/1979	337.0	5/22/1980	341.7	5/21/1981	339.5	11/29/1983	336.8
3/28/1979	337.1	6/23/1980	341.3	8/20/1981	339.5	1/24/1984	336.7
5/ 2/1979	338.4	7/28/1980	341.6	12/23/1981	338.5	6/21/1984	338.1
7/ 9/1979	338.5	9/19/1980	341.2	1/21/1982	338.0	11/28/1984	336.9
8/ 9/1979	339.6	10/22/1980	341.1	10/28/1982	337.4	2/21/1985	334.6
9/14/1979	338.5	11/19/1980	341.1	1/27/1983	336.2	5/22/1985	336.3
2/12/1980	340.3	12/19/1980	340.9	5/ 4/1983	337.9		
3/13/1980	340.8	1/23/1981	340.7	8/23/1983	336.7		

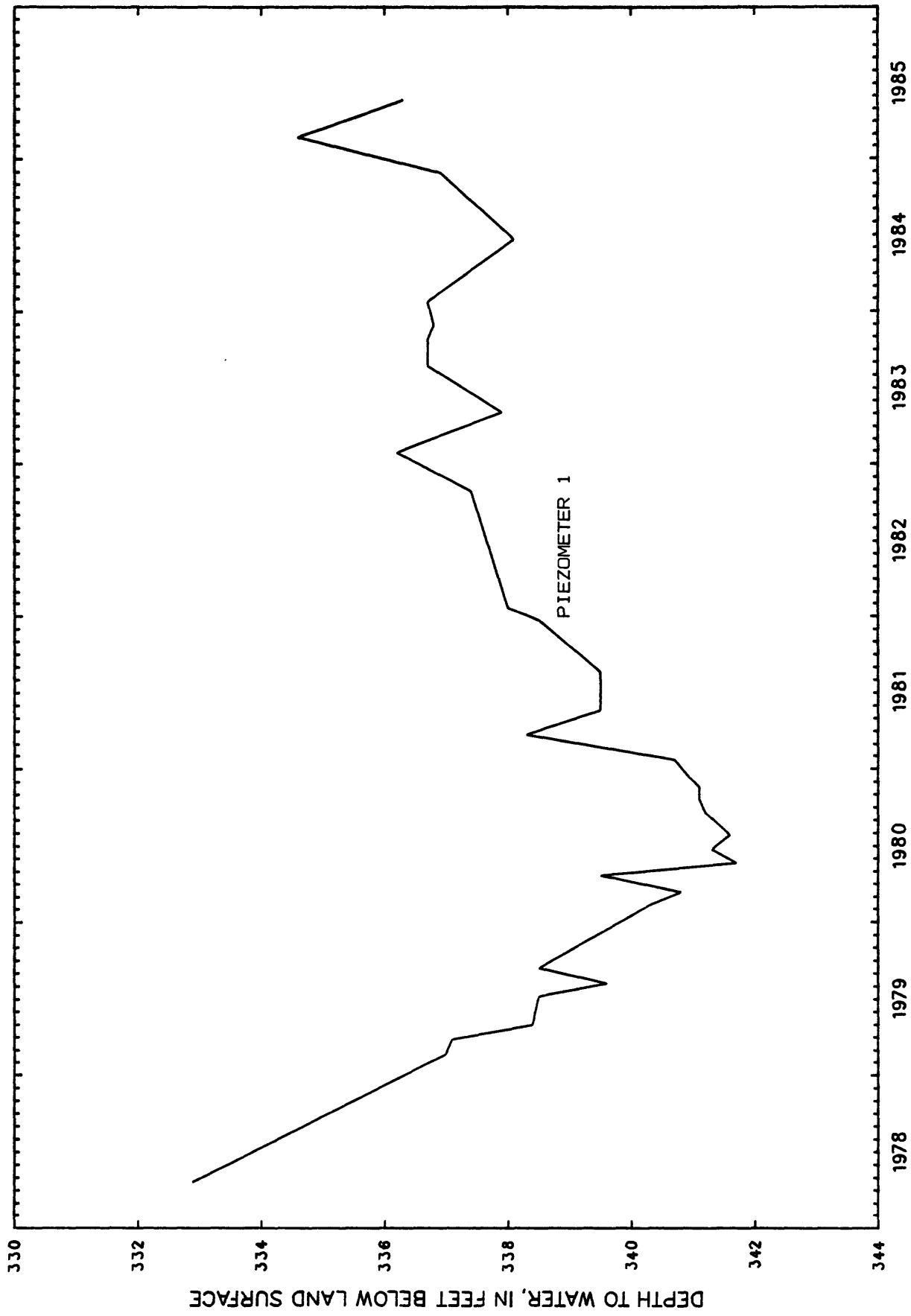


Figure 6.—Water level in piezometer at test hole SG-05 (D-04-09)15BAB2.

Table 5.--Water levels, in feet below land surface, in piezometers at test hole SG-06.

Test Hole	SG-06	(D-01-08)21ADBZ1	Site Id 331953111315001
DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	396.8	2/ 1/1980	397.6
3/26/1979	397.2	3/12/1980	399.3
5/ 1/1979	398.2	4/18/1980	400.2
6/ 8/1979	398.9	6/24/1980	403.1
7/13/1979	397.8	7/25/1980	403.7
8/ 8/1979	399.5	8/22/1980	405.9
9/14/1979	399.4	9/22/1980	404.6
10/24/1979	399.8	10/24/1980	404.9
11/16/1979	401.4	11/20/1980	404.9
		12/22/1980	404.8
		1/24/1981	404.7
		2/25/1981	405.8
		3/25/1981	405.0
		4/27/1981	406.3
		5/26/1981	407.3
		6/24/1981	407.6
		8/18/1981	409.7
		1/28/1982	410.0
		10/22/1982	414.6
		11/28/1983	422.6
		1/27/1984	417.7
		6/25/1984	418.7
		11/26/1984	419.4
		2/20/1985	419.2
		5/21/1985	421.1

Test Hole	SG-06	(D-01-08)21ADBZ2	Site Id 331953111315002
DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	308.7	2/ 1/1980	313.3
3/26/1979	313.2	3/12/1980	311.8
5/ 1/1979	314.7	4/18/1980	313.5
6/ 8/1979	314.4	6/24/1980	315.3
7/13/1979	312.7	7/25/1980	314.6
8/ 8/1979	313.7	8/22/1980	315.7
9/14/1979	312.9	9/22/1980	315.1
10/24/1979	313.5	10/24/1980	315.2
11/16/1979	314.1	11/20/1980	315.5
		12/22/1980	315.3
		1/24/1981	315.3
		2/25/1981	316.0
		3/25/1981	315.0
		4/27/1981	315.7
		5/26/1981	316.1
		6/24/1981	316.0
		8/18/1981	317.2
		1/28/1982	316.9
		10/22/1982	318.8
		11/28/1983	320.1
		1/27/1984	319.7
		6/25/1984	320.6
		11/26/1984	321.2
		2/20/1985	320.4
		5/21/1985	322.9

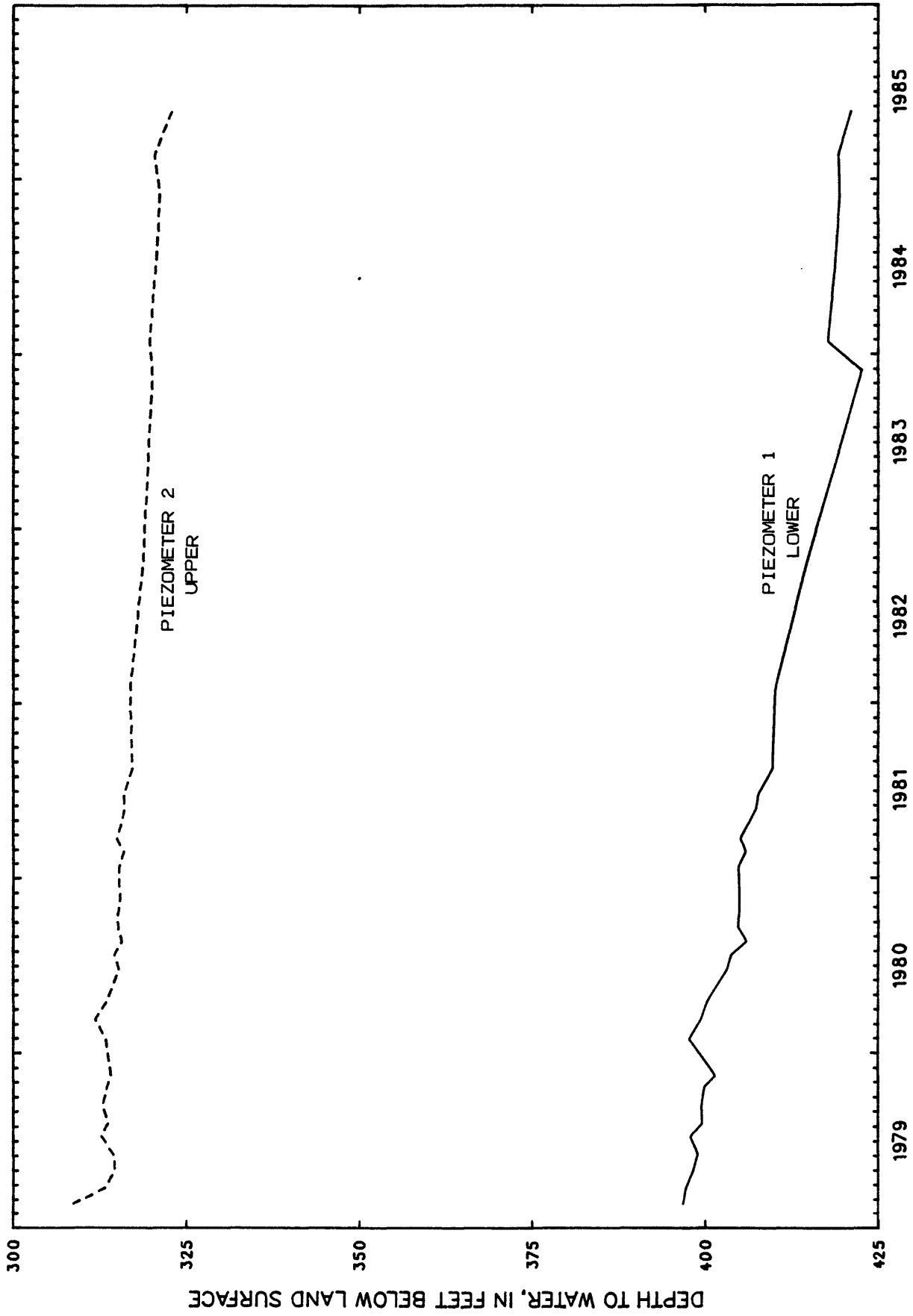


Figure 7. ---Water levels in piezometers at test hole SG-06 (D-01-08)21ADB.

Table 6.--Water levels, in feet below land surface, in piezometers at test hole SG-07.

Test Hole SG-07 (D-03-09)090CDPZ1 Site Id 331042111254301

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	475.4	4/22/1980	482.4	1/23/1981	481.6
3/28/1979	480.6	5/22/1980	483.2	3/24/1981	484.0
5/ 2/1979	482.1	6/24/1980	486.0	5/21/1981	486.2
7/10/1979	482.8	7/28/1980	489.1	8/19/1981	491.9
8/ 9/1979	486.0	9/22/1980	488.4	10/28/1982	489.8
9/14/1979	484.0	10/23/1980	484.4	1/27/1983	487.9
2/ 8/1980	476.7	11/20/1980	483.1	5/ 4/1983	490.6
3/13/1980	479.0	12/22/1980	481.9	8/23/1983	491.4

Test Hole SG-07 (D-03-09)090CDPZ2 Site Id 331042111254302

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	480.1	4/22/1980	485.4	1/23/1981	486.8
3/28/1979	483.3	5/22/1980	486.0	3/24/1981	487.8
5/ 2/1979	484.3	6/24/1980	488.7	5/21/1981	489.6
7/10/1979	484.3	7/28/1980	490.0	8/19/1981	492.4
8/ 9/1979	486.5	9/22/1980	490.1	10/28/1982	493.6
9/14/1979	485.6	10/23/1980	488.2	1/27/1983	492.4
2/ 8/1980	483.5	11/20/1980	487.6	5/ 4/1983	494.6
3/13/1980	484.4	12/22/1980	487.4	8/23/1983	495.5

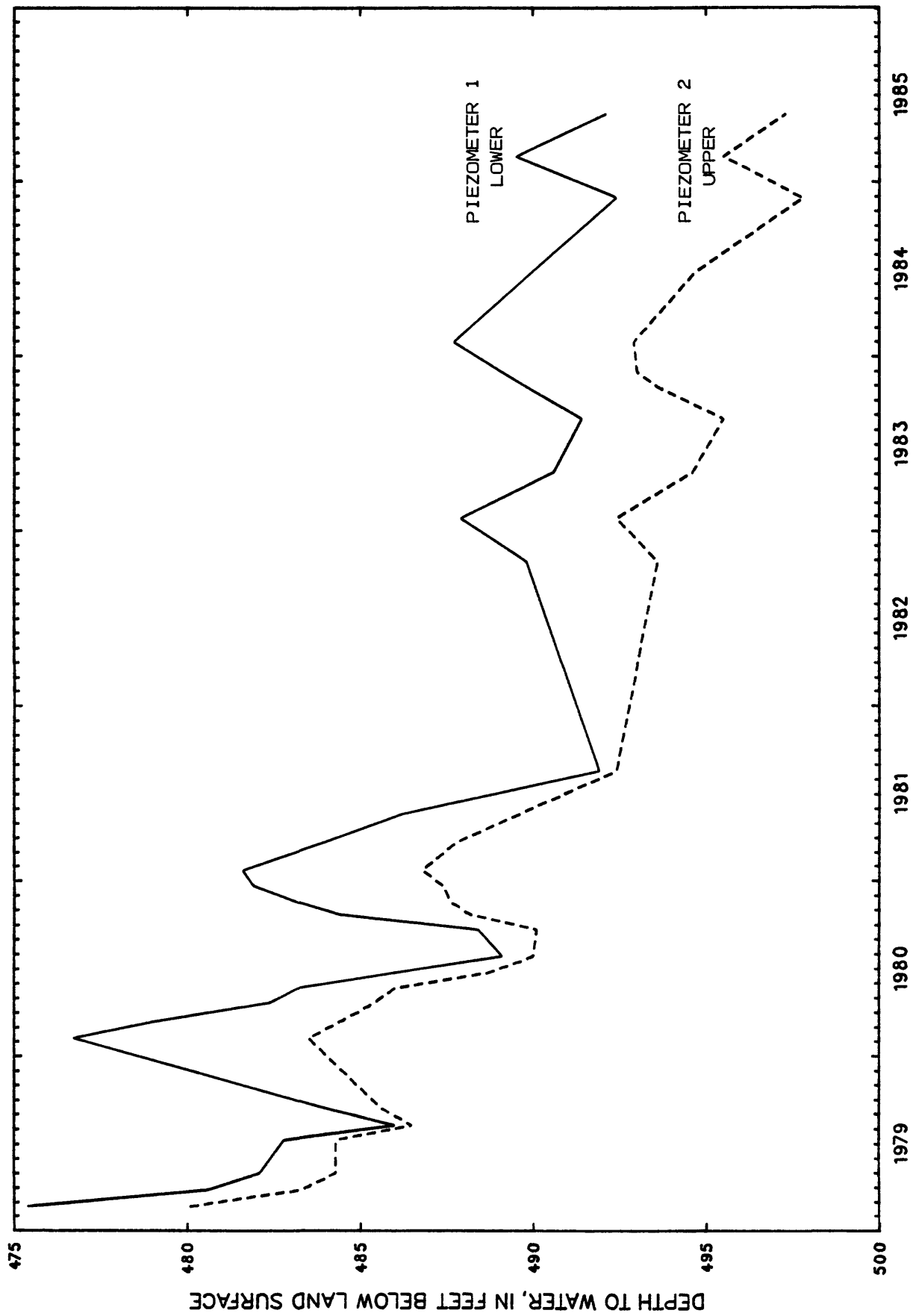


Figure 8.—Water levels in piezometers at test hole SG-07 (D-03-09)09DCD.

20 Table 7.--Water levels, in feet below land surface, in piezometers at test hole SG-08.

Test Hole	SG-08	(D-05-09)14CACP21		Site Id 325933111235401			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
3/ 1/1979	271.8	2/12/1980	269.2	11/19/1980	268.9	12/22/1981	276.9
3/28/1979	277.3	3/13/1980	266.8	12/19/1980	261.4	1/21/1982	268.2
5/ 2/1979	274.4	4/23/1980	273.5	1/22/1981	267.0	10/27/1982	280.2
6/ 7/1979	275.4	5/22/1980	273.6	2/24/1981	270.5	1/27/1983	271.3
7/ 9/1979	281.8	6/23/1980	280.6	3/23/1981	281.2	5/ 5/1983	271.9
8/10/1979	287.0	7/28/1980	284.6	4/23/1981	281.3	8/23/1983	279.6
9/12/1979	288.2	9/19/1980	288.0	5/20/1981	284.6		
10/24/1979	273.2	10/22/1980	275.8	8/20/1981	294.9		

Test Hole	SG-08	(D-05-09)14CACP22		Site Id 325933111235402			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
3/ 1/1979	271.2	2/12/1980	268.9	11/19/1980	266.9	12/22/1981	276.3
3/28/1979	274.4	3/13/1980	264.8	12/19/1980	268.7	1/21/1982	267.6
5/ 2/1979	272.7	4/23/1980	272.1	1/22/1981	266.2	10/27/1982	277.5
6/ 7/1979	272.5	5/22/1980	273.1	2/24/1981	270.3	1/27/1983	271.4
7/ 9/1979	279.1	6/23/1980	277.6	3/23/1981	278.8	5/ 5/1983	272.0
8/10/1979	284.5	7/28/1980	273.3	4/23/1981	278.5	8/23/1983	279.0
9/12/1979	284.9	9/19/1980	283.5	5/20/1981	280.4		
10/24/1979	270.5	10/22/1980	274.1	8/20/1981	290.2		

Test Hole	SG-08	(D-05-09)14CACP23		Site Id 325933111235403			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
3/ 1/1979	276.4	2/12/1980	276.3	11/19/1980	273.7	12/22/1981	282.3
3/28/1979	278.0	3/13/1980	271.3	12/19/1980	275.3	1/21/1982	273.3
5/ 2/1979	277.6	4/23/1980	278.3	1/22/1981	274.1	10/27/1982	283.6
6/ 7/1979	277.3	5/22/1980	278.5	2/24/1981	276.9	1/27/1983	274.7
7/ 9/1979	280.9	6/23/1980	279.3	3/23/1981	284.2	5/ 5/1983	275.2
8/10/1979	289.5	7/28/1980	284.9	4/23/1981	285.3	8/23/1983	284.0
9/12/1979	289.5	9/19/1980	290.4	5/20/1981	285.7		
10/24/1979	276.6	10/22/1980	278.7	8/20/1981	294.3		



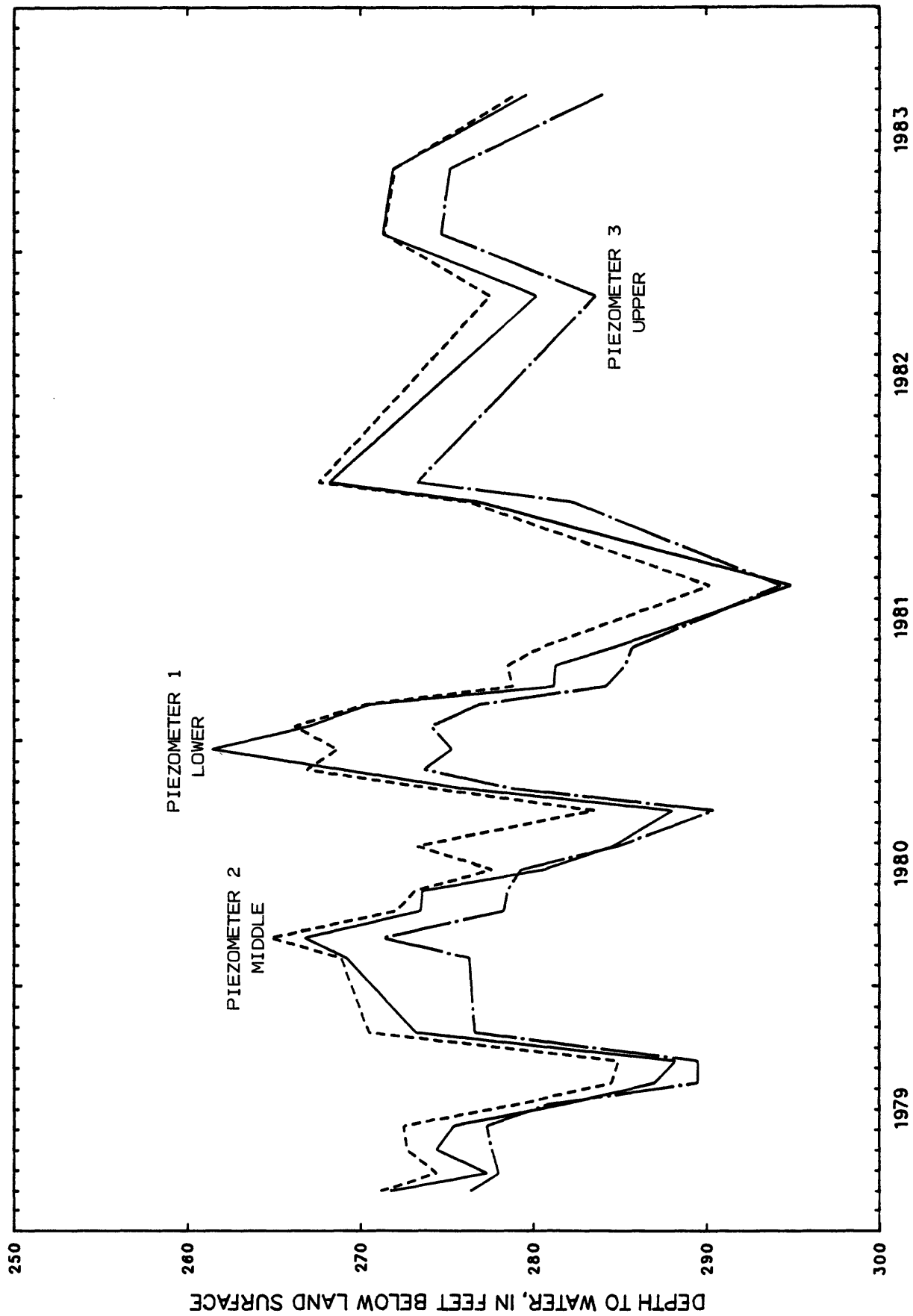


Figure 9.—Water levels in piezometers at test hole SG-08 (D-05-09)14CAC.

Test Hole	SG-09	(D-05-10)31BBAP21		Site Id 335733111220201			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	356.1	4/23/1980	361.2	3/20/1981	364.8	10/28/1983	361.7
3/27/1979	359.2	5/22/1980	361.8	4/23/1981	369.1	11/28/1983	360.0
5/ 3/1979	359.0	6/23/1980	365.2	5/20/1981	369.8	1/24/1984	355.0
6/ 7/1979	359.3	7/28/1980	369.4	8/20/1981	374.7	6/21/1984	356.7
7/ 9/1979	363.7	9/19/1980	370.1	12/22/1981	362.2	11/28/1984	356.0
8/10/1979	367.1	10/21/1980	363.9	1/21/1982	359.7	2/22/1985	349.4
9/12/1979	368.4	11/19/1980	359.9	10/27/1982	367.5	5/22/1985	352.0
10/26/1979	359.7	12/19/1980	357.3	1/27/1983	361.1		
2/12/1980	356.4	1/22/1981	357.9	5/ 5/1983	361.5		
3/13/1980	356.0	2/24/1981	360.4	8/23/1983	366.5		

Test Hole	SG-09	(D-05-10)31BBAP22		Site Id 335733111220202			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	356.3	4/23/1980	361.4	3/20/1981	364.4	10/28/1983	371.6
3/27/1979	359.5	5/22/1980	361.5	4/23/1981	368.8	11/28/1983	370.9
5/ 3/1979	358.6	6/23/1980	365.3	5/20/1981	370.0	1/24/1984	364.8
6/ 7/1979	360.0	7/28/1980	365.7	8/20/1981	374.8	6/21/1984	366.8
7/ 9/1979	363.9	9/19/1980	370.3	12/22/1981	362.4	11/28/1984	355.6
8/10/1979	367.3	10/20/1980	364.2	1/21/1982	359.9	2/22/1985	350.7
9/12/1979	368.5	11/19/1980	360.1	10/27/1982	366.6	5/22/1985	352.6
10/26/1979	360.8	12/19/1980	357.3	1/27/1983	361.0		
2/12/1980	357.3	1/22/1981	358.5	5/ 5/1983	361.5		
3/13/1980	356.0	2/24/1981	360.2	8/23/1983	367.1		

Test Hole	SG-09	(D-05-10)31BBAP23		Site Id 335733111220203			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	358.4	4/23/1980	361.3	3/20/1981	363.8	10/28/1983	363.6
3/27/1979	360.7	5/22/1980	361.5	4/23/1981	368.3	11/28/1983	362.5
5/ 3/1979	360.4	6/23/1980	364.6	5/20/1981	368.2	1/24/1984	360.0
6/ 7/1979	361.3	7/28/1980	364.3	8/20/1981	372.7	6/21/1984	361.1
7/ 9/1979	363.7	9/19/1980	368.7	12/22/1981	363.9	11/28/1984	358.7
8/10/1979	366.3	10/21/1980	364.2	1/21/1982	361.7	2/22/1985	354.5
9/12/1979	367.2	11/19/1980	361.5	10/27/1982	367.4	5/22/1985	355.9
10/26/1979	361.5	12/19/1980	359.3	1/27/1983	362.7		
2/12/1980	358.7	1/22/1981	358.7	5/ 5/1983	363.1		
3/13/1980	358.3	2/24/1981	361.3	8/23/1983	368.8		

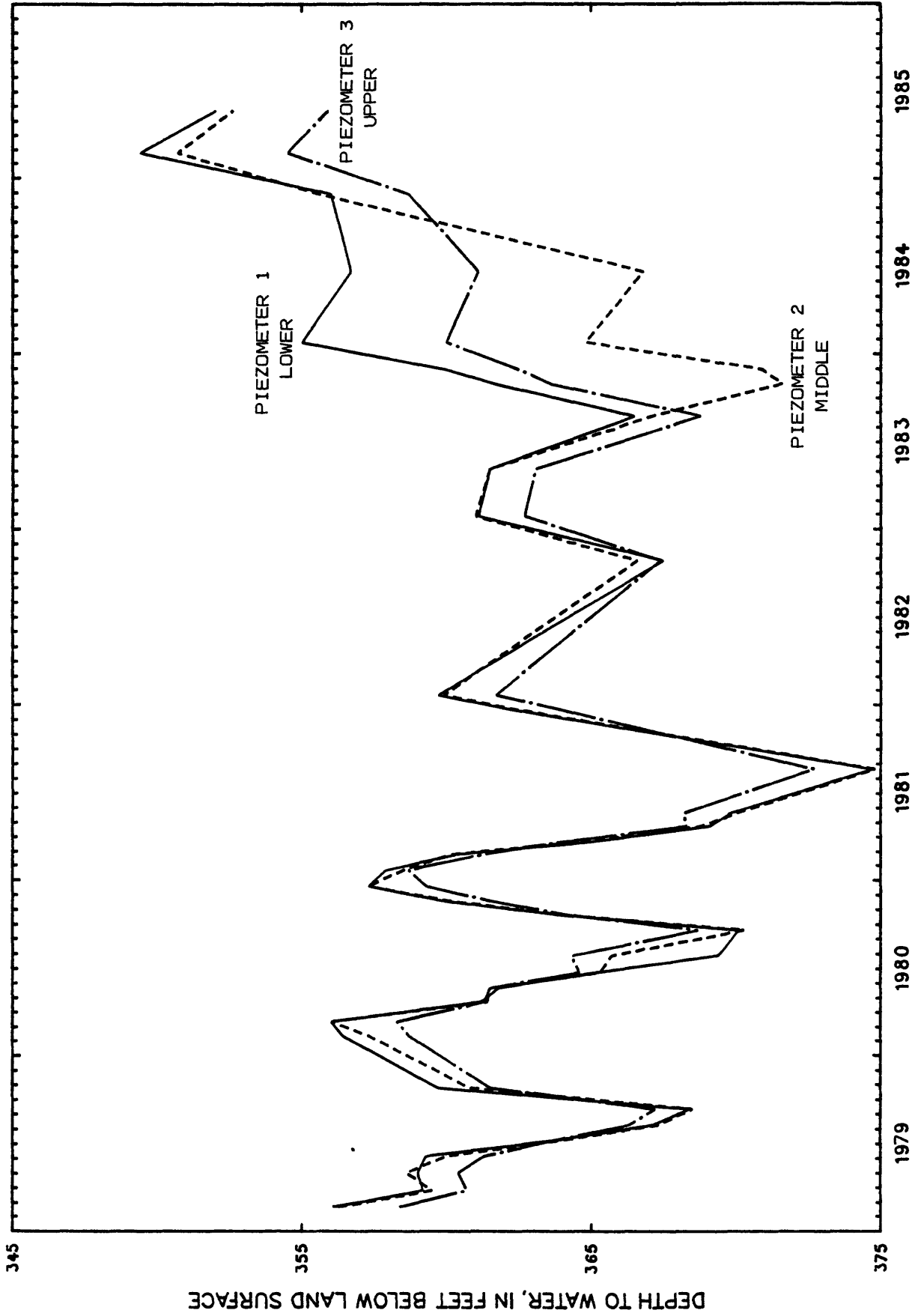


Figure 10. ---Water levels in piezometers at test hole SG-09 (D-05-10)31BBA.

Table 9.--Water levels, in feet below land surface, in piezometers at test hole SG-10.

Test Hole	SG-10	(D-02-08)02CBBPZ1	Site Id 331703111303401
DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	418.2	3/12/1980	415.7
3/26/1979	417.7	4/18/1980	414.7
5/ 1/1979	417.5	6/24/1980	417.3
6/ 8/1979	417.9	7/25/1980	417.5
7/10/1979	415.8	8/22/1980	417.7
8/ 8/1979	416.8	9/22/1980	419.3
9/14/1979	416.3	10/24/1980	418.8
10/24/1979	417.1	11/20/1980	419.0
11/16/1979	417.9	12/22/1980	419.4
2/ 1/1980	416.1	1/24/1981	419.2
		2/25/1981	420.0
		3/25/1981	419.1
		4/27/1981	419.7
		5/26/1981	420.3
		6/24/1981	420.3
		8/19/1981	421.9
		1/28/1982	423.0
		10/22/1982	425.2
		1/26/1983	425.6
		5/ 4/1983	427.5
		8/23/1983	427.0
		11/28/1983	427.1
		1/27/1984	427.0
		6/25/1984	428.2
		11/26/1984	429.4
		2/20/1985	426.7
		5/21/1985	427.9

Test Hole	SG-10	(D-02-08)02CBBPZ3	Site Id 331703111303403
DATE	WATER LEVEL	DATE	WATER LEVEL
3/26/1979	406.2	2/ 1/1980	402.5
5/ 1/1979	410.1	3/12/1980	401.8
6/ 8/1979	414.2	4/18/1980	402.2
7/10/1979	412.8	6/24/1980	406.5
8/ 8/1979	416.5	7/25/1980	411.3
9/14/1979	419.2	8/22/1980	415.4
10/24/1979	417.7	9/22/1980	413.9
11/16/1979	413.8	10/24/1980	414.6
		11/20/1980	415.2
		12/22/1980	415.3
		1/24/1981	414.6
		2/25/1981	415.2
		3/25/1981	413.0
		4/27/1981	413.8
		5/26/1981	415.0
		6/24/1981	415.5
		1/28/1982	409.4
		11/28/1983	413.2
		1/27/1984	408.6
		6/25/1984	409.7
		11/26/1984	410.8
		2/20/1985	406.3
		5/21/1985	408.7

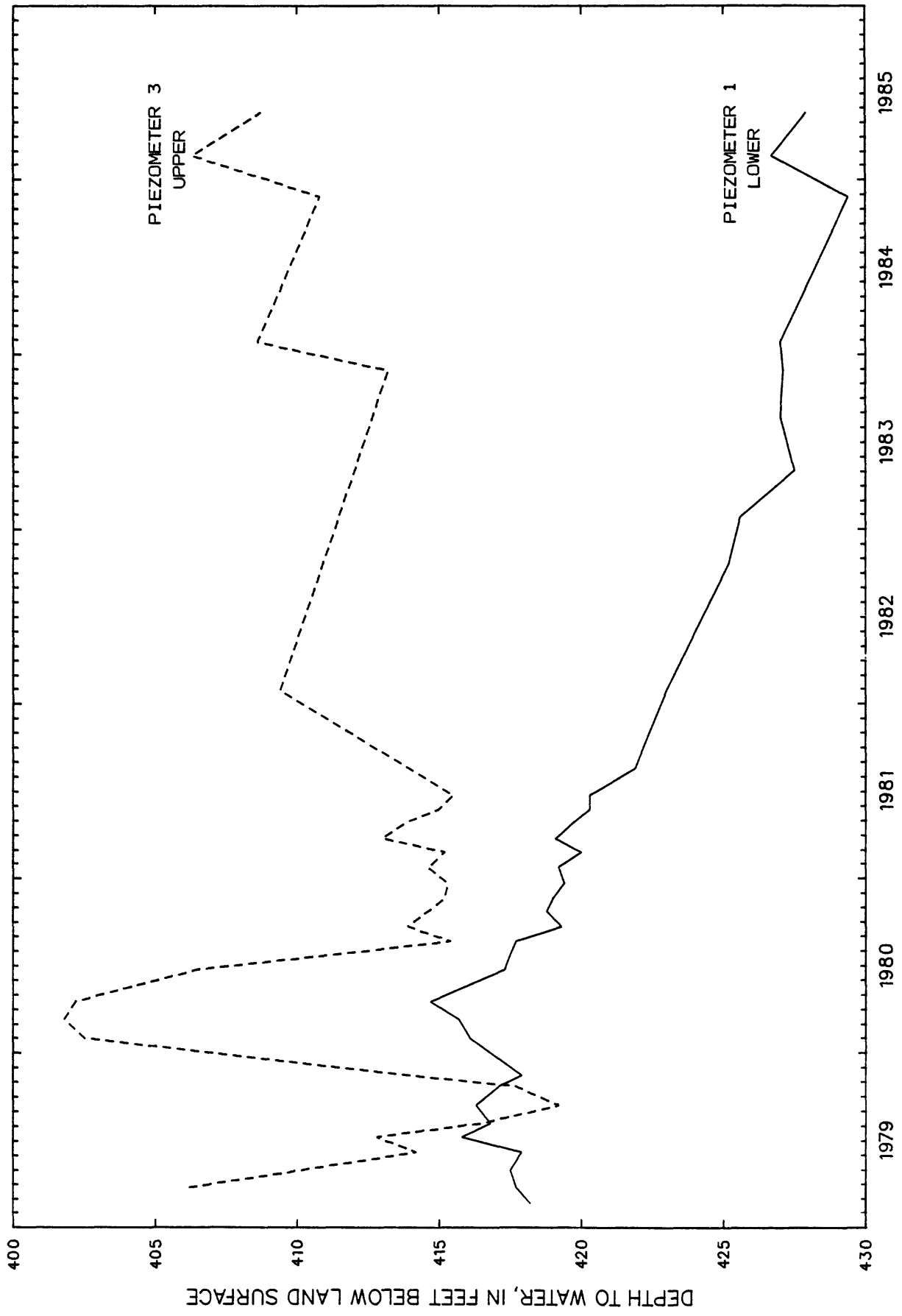


Figure 11.—Water levels in piezometers at test hole SG-10 (D-02-08)02CBB.

Table 10.--Water levels, in feet below land surface, in piezometers at test hole SG-11.

Test Hole	SG-11	(A-01-07)360AA3PZ1	Site Id 33230811345101
DATE	WATER LEVEL	DATE	WATER LEVEL
6/16/1978	472.4	7/24/1980	481.8
6/21/1978	472.4	9/23/1980	484.4
6/29/1978	472.8	10/24/1980	484.3
7/17/1978	473.3	11/21/1980	484.7
12/ 6/1979	479.8	12/23/1980	484.5
12/20/1979	479.7	1/27/1981	484.8
2/11/1980	479.3	2/27/1981	484.8
3/21/1980	478.5	3/26/1981	485.1
4/17/1980	479.9	4/29/1981	487.2
5/23/1980	480.9	5/26/1981	488.0
6/30/1980	480.7	6/23/1981	488.8
		7/24/1981	489.2
		8/26/1981	490.3
		9/22/1981	491.1
		1/18/1982	490.3
		2/16/1982	490.4
		3/24/1982	490.6
		4/22/1982	491.2
		5/17/1982	492.5
		6/22/1982	493.0
		7/19/1982	493.7
		8/19/1982	494.6
		10/21/1982	494.7
		1/26/1983	494.2
		4/29/1983	494.4
		8/22/1983	495.2
		11/28/1983	501.7
		1/27/1984	499.5
		2/23/1984	498.6
		6/25/1984	500.4
		11/27/1984	495.6
		2/20/1985	497.1
		5/21/1985	499.6

Test Hole	SG-11	(A-01-07)360AA3PZ2	Site Id 33230811345102
DATE	WATER LEVEL	DATE	WATER LEVEL
4/11/1978	467.3	7/24/1980	482.2
4/25/1978	470.8	9/23/1980	482.7
6/16/1978	469.6	10/24/1980	482.8
6/21/1978	469.7	11/21/1980	483.0
6/29/1978	469.9	12/23/1980	482.7
7/17/1978	469.0	1/27/1981	483.3
12/ 6/1979	477.8	2/27/1981	483.5
12/20/1979	478.3	3/26/1981	484.5
2/11/1980	477.6	4/29/1981	484.6
3/21/1980	478.0	5/26/1981	486.2
4/17/1980	478.4	6/23/1981	486.5
6/30/1980	482.0	7/24/1981	487.0
		8/26/1981	488.1
		9/22/1981	488.8
		1/18/1982	489.3
		2/16/1982	489.4
		3/24/1982	489.9
		4/22/1982	490.2
		5/17/1982	492.3
		6/22/1982	491.0
		7/19/1982	491.7
		8/19/1982	492.5
		10/21/1982	494.2
		1/26/1983	493.5

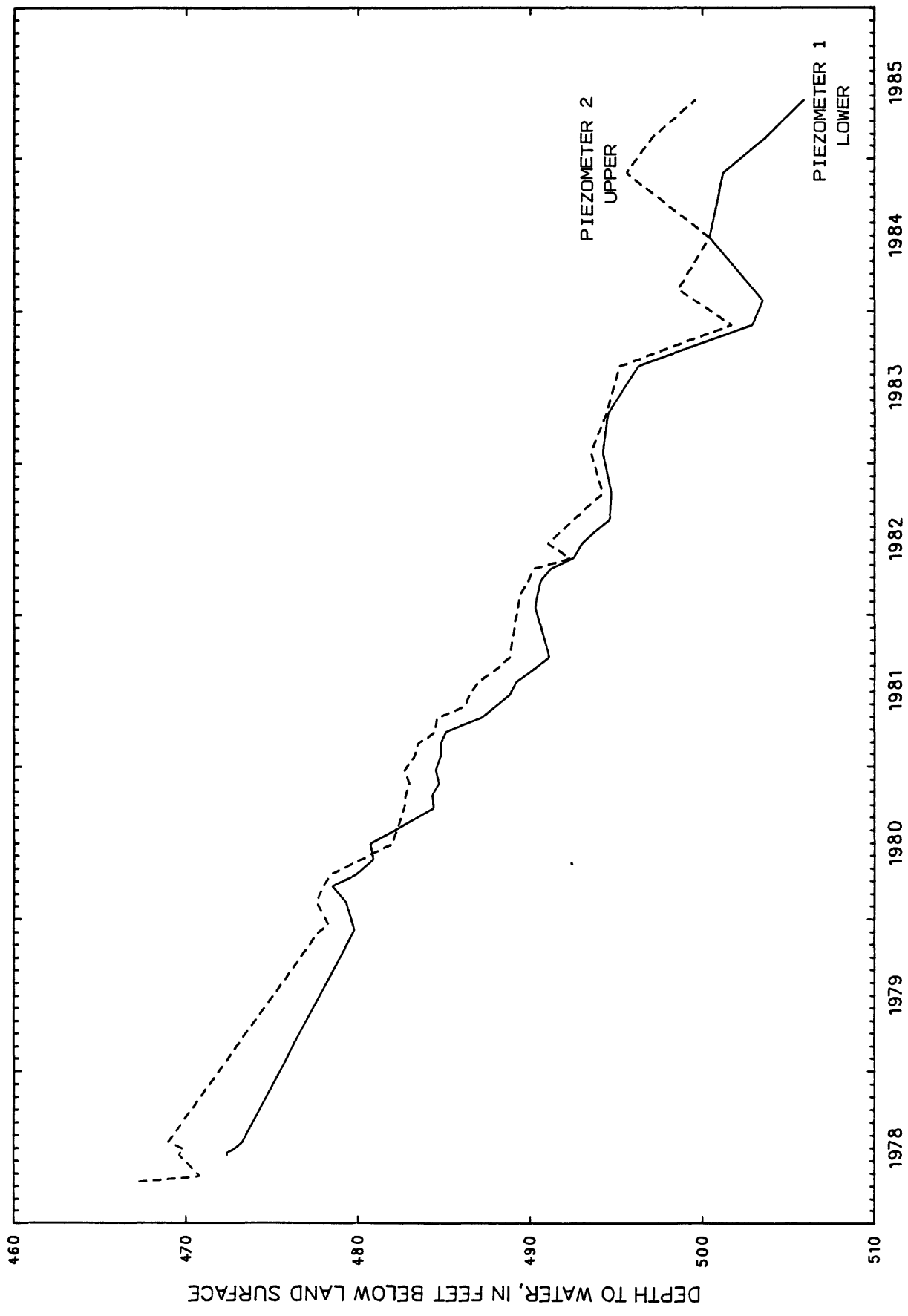


Figure 12.--Water levels in piezometers at test hole SG-11 (A-01-07) 36DAA3.

28 Table 11.--Water levels, in feet below land surface, in piezometers at test hole SG-12.

Test Hole	SG-12	(D-02-08)26CAD1PZ1			Site Id 331329111301201		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	464.2	11/16/1979	470.4	9/22/1980	501.5	5/21/1981	490.5
3/26/1979	482.7	2/ 8/1980	467.9	10/23/1980	482.7	6/24/1981	502.7
5/ 1/1979	472.9	3/12/1980	473.5	11/20/1980	475.7	7/23/1981	511.3
6/ 8/1979	479.3	4/18/1980	486.8	12/22/1980	475.1	9/21/1981	509.8
7/10/1979	493.3	5/22/1980	481.9	1/23/1981	472.0	10/23/1981	490.1
8/ 8/1979	499.6	6/24/1980	493.6	2/25/1981	479.6		
9/14/1979	496.3	7/24/1980	500.8	3/25/1981	492.4		
10/24/1979	475.2	8/22/1980	506.0	4/24/1981	498.1		

Test Hole	SG-12	(D-02-08)26CAD1PZ2			Site Id 331329111301202		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	464.3	4/18/1980	491.1	10/23/1981	492.6	11/29/1983	479.6
3/26/1979	486.5	5/22/1980	486.5	12/23/1981	482.1	1/25/1984	478.8
5/ 1/1979	485.0	6/24/1980	499.6	1/28/1982	479.4	2/23/1984	479.4
6/ 8/1979	481.0	10/23/1980	484.9	2/19/1982	486.2	6/26/1984	480.7
7/10/1979	497.6	11/20/1980	477.7	4/23/1982	500.3	11/26/1984	488.2
8/ 9/1979	504.5	12/22/1980	478.5	5/20/1982	493.7	2/20/1985	478.8
10/24/1979	476.5	1/23/1981	474.4	9/23/1982	507.4	5/21/1985	479.9
11/16/1979	472.9	2/25/1981	484.2	10/22/1982	492.3		
2/ 8/1980	464.4	3/25/1981	498.3	1/27/1983	481.5		
3/12/1980	475.7	5/21/1981	494.8	8/23/1983	500.5		

Test Hole	SG-12	(D-02-08)26CAD1PZ3			Site Id 331329111301203		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	483.0	4/18/1980	523.1	3/25/1981	560.1	10/22/1982	512.1
3/26/1979	537.0	5/22/1980	531.8	4/24/1981	572.0	1/27/1983	502.3
5/ 1/1979	515.7	6/24/1980	556.0	5/21/1981	591.0	8/23/1983	510.9
6/ 8/1979	509.3	7/24/1980	567.3	6/24/1981	571.3	11/29/1983	492.9
7/10/1979	553.1	8/22/1980	573.7	7/23/1981	589.2	1/25/1984	491.7
8/ 9/1979	562.9	9/22/1980	569.4	8/19/1981	584.0	2/23/1984	493.5
9/14/1979	550.4	10/23/1980	507.7	9/21/1981	524.2	6/26/1984	494.0
10/23/1979	496.6	11/20/1980	497.9	10/23/1981	518.7	11/26/1984	495.2
11/16/1979	490.3	12/22/1980	511.7	12/23/1981	508.6	2/20/1985	493.2
2/ 8/1980	481.8	1/23/1981	501.9	1/28/1982	502.7	5/21/1985	493.5
3/12/1980	506.5	2/25/1981	516.3	9/23/1982	535.1		



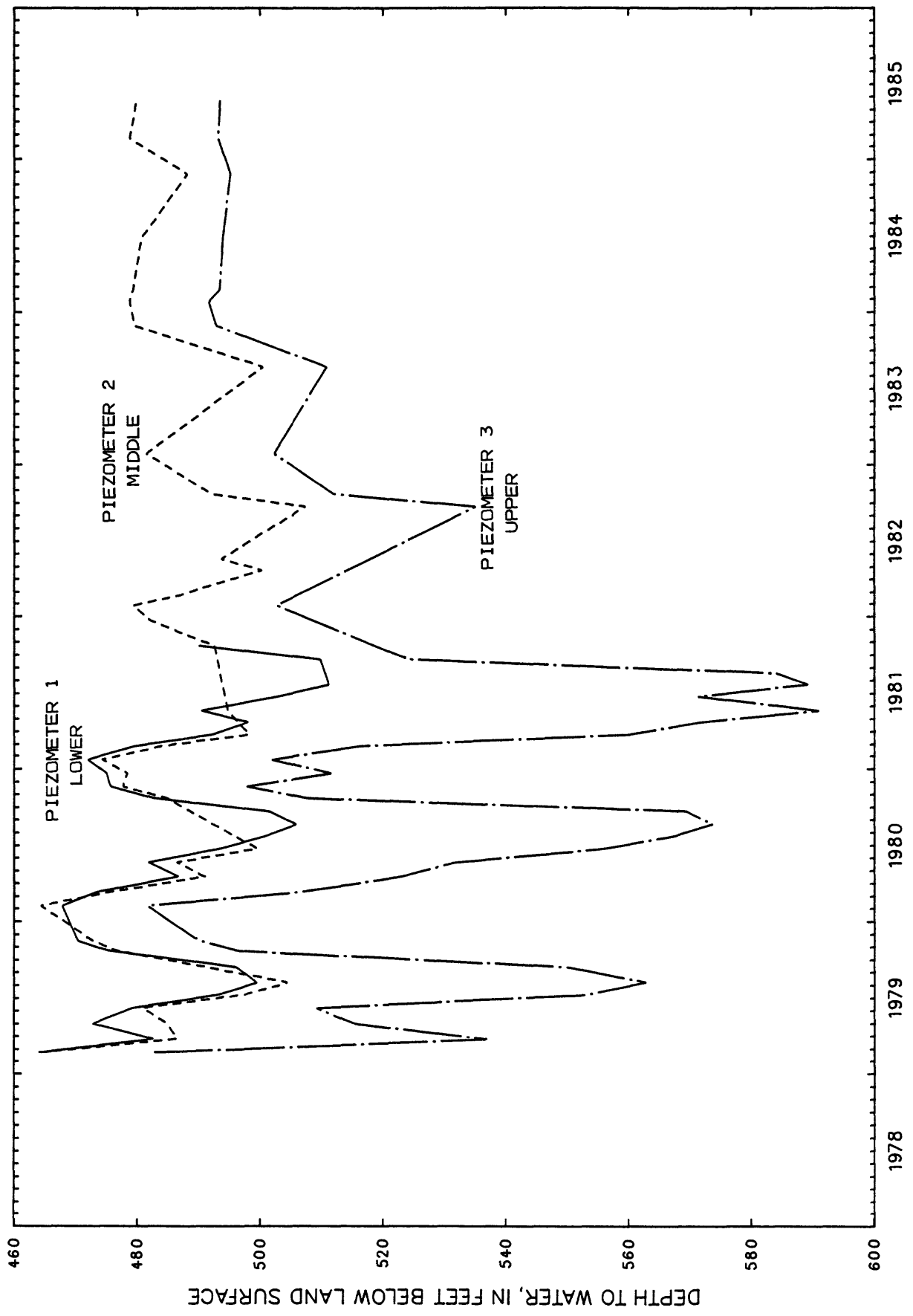


Figure 13.—Water levels in piezometers at test hole SG-12 (D-02-08)26CAD1.

Table 12.--Water levels, in feet below land surface, in piezometers at test hole SG-13.

Test Hole	SG-13	(D-03-09)19CBDP21		Site Id	330908111281201		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	462.5	4/22/1980	479.0	2/25/1981	474.0	8/23/1983	481.3
3/28/1979	474.3	5/22/1980	478.6	3/24/1981	479.2	11/29/1983	471.2
5/ 2/1979	476.5	6/24/1980	488.1	4/24/1981	486.4	1/30/1984	470.0
7/ 9/1979	483.8	7/28/1980	494.1	5/21/1981	486.8	6/26/1984	471.7
8/ 9/1979	492.4	9/22/1980	490.9	8/19/1981	499.4	11/25/1984	472.0
9/14/1979	484.1	10/22/1980	475.6	1/28/1982	477.1	2/21/1985	470.2
10/24/1979	473.3	11/20/1980	473.2	10/28/1982	483.5	5/21/1985	472.0
2/ 8/1980	464.5	12/22/1980	474.8	1/27/1983	478.0		
3/13/1980	469.3	1/23/1981	471.5	5/ 5/1983	480.2		

Test Hole	SG-13	(D-03-09)19CBDP22		Site Id	330908111281202		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
5/ 2/1979	480.9	6/24/1980	483.9	4/24/1981	478.3	1/30/1984	472.8
7/ 9/1979	478.9	7/28/1980	486.3	5/21/1981	478.6	6/26/1984	474.9
8/ 9/1979	480.3	9/22/1980	490.7	8/19/1981	478.9	11/25/1984	475.6
9/14/1979	480.6	10/23/1980	488.8	1/28/1982	478.7	2/21/1985	472.1
10/24/1979	480.1	11/20/1980	483.7	10/28/1982	481.0	5/21/1985	475.1
2/ 8/1980	477.0	12/22/1980	479.8	1/27/1983	481.6		
3/13/1980	491.9	1/23/1981	479.0	5/ 5/1983	483.9		
4/17/1980	482.4	2/25/1981	478.7	8/23/1983	484.8		
5/22/1980	482.6	3/24/1981	478.1	11/29/1983	473.9		

Test Hole	SG-13	(D-03-09)19CBDP23		Site Id	330908111281203		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/21/1979	453.1	4/22/1980	466.3	2/25/1981	468.2	8/23/1983	473.8
3/28/1979	460.2	5/22/1980	466.8	3/24/1981	467.7	11/29/1983	473.0
5/ 2/1979	461.9	6/24/1980	471.1	4/24/1981	469.4	1/30/1984	471.2
7/ 9/1979	466.1	7/28/1980	476.8	5/21/1981	468.9	6/26/1984	472.1
8/ 9/1979	470.9	9/22/1980	470.2	8/19/1981	473.0	11/26/1984	473.0
9/14/1979	467.7	10/23/1980	469.9	1/28/1982	469.7	2/21/1985	470.9
10/24/1979	467.3	11/20/1980	469.7	10/28/1982	472.4	5/21/1985	472.1
2/ 8/1980	463.4	12/22/1980	468.9	1/27/1983	470.6		
3/13/1980	466.5	1/23/1981	467.9	5/ 5/1983	472.5		

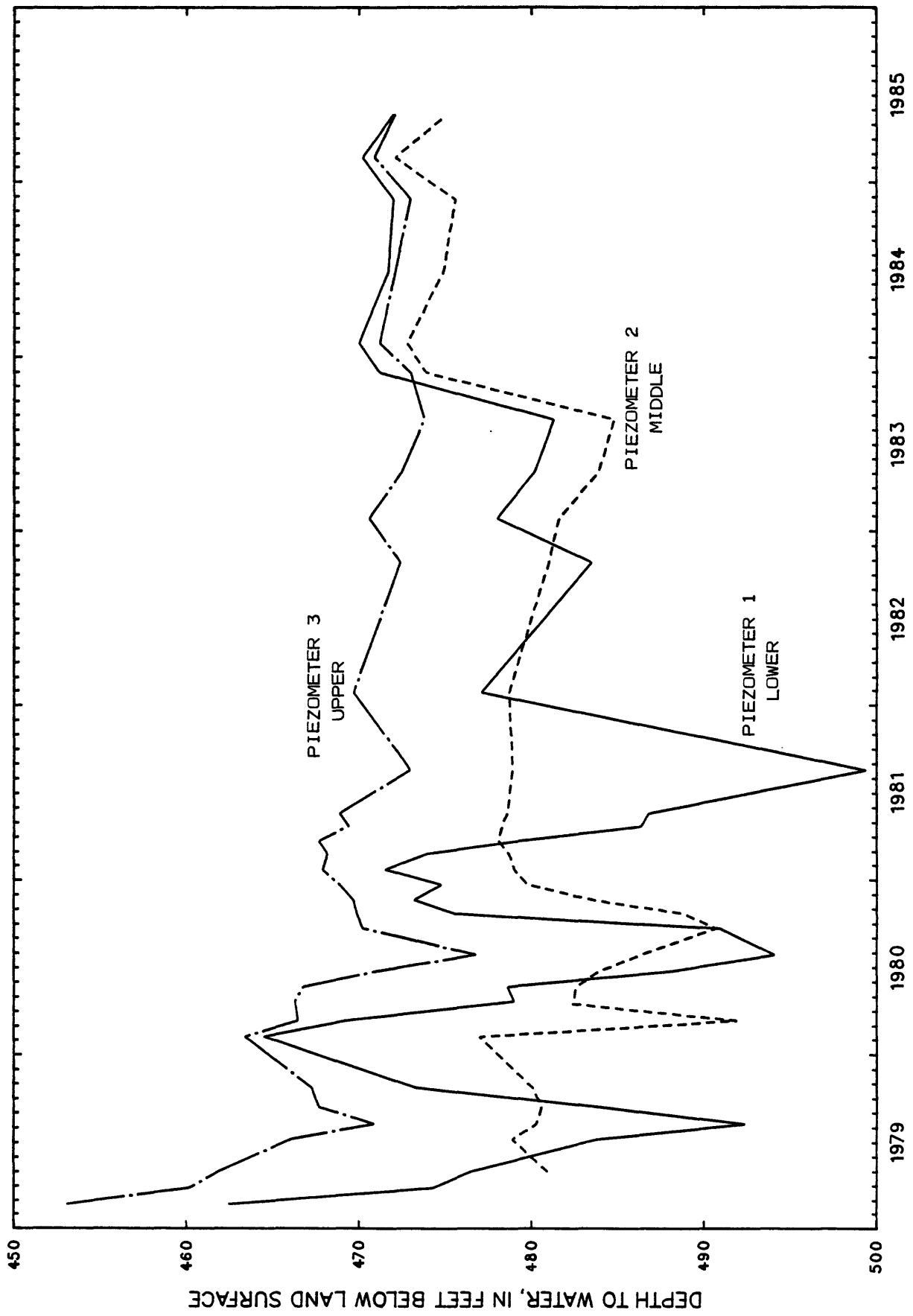


Figure 14. ---Water levels in piezometers at test hole SG-13 (D-03-09)19CBD.



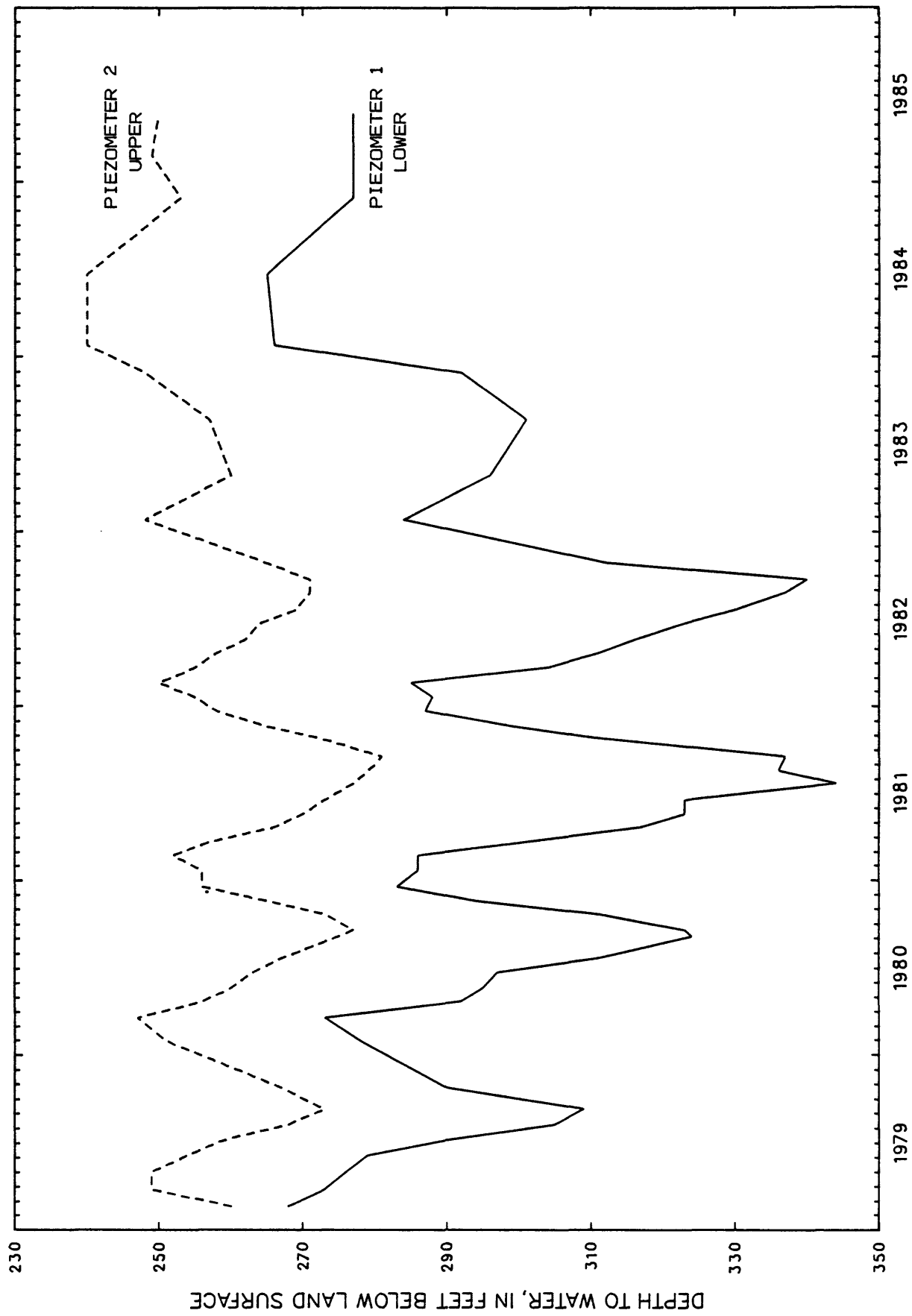


Figure 15.—Water levels in piezometers at test hole SC-14 (D-06-09)29BBA1.

Table 14.--Water levels, in feet below land surface, in piezometer at test hole SG-14B.

Test Hole	SG-14B	(D-06-09)298BA3PZ1	Site Id 325243111263901				
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL		
9/12/1979	254.9	12/19/1980	249.1	12/22/1981	251.7	4/28/1983	260.4
10/26/1979	253.7	1/22/1981	247.3	1/20/1982	248.9	8/23/1983	268.1
1/31/1980	243.7	1/23/1981	245.0	2/19/1982	246.3	11/29/1983	245.5
3/20/1980	239.9	3/23/1981	254.4	3/23/1982	247.0	1/24/1984	250.1
4/23/1980	243.2	4/24/1981	240.0	4/22/1982	248.2	6/21/1984	249.6
5/21/1980	246.5	5/20/1981	252.9	5/20/1982	250.2	11/28/1984	252.3
6/23/1980	249.2	6/19/1981	255.2	6/23/1982	252.0	2/25/1985	250.2
7/23/1980	252.4	7/23/1981	258.2	7/21/1982	254.3	5/22/1985	250.0
9/ 6/1980	256.6	8/18/1981	260.3	8/26/1982	256.8		
9/19/1980	257.0	9/18/1981	262.1	9/22/1982	257.7		
10/22/1980	257.1	10/28/1981	259.3	10/27/1982	256.0		
11/19/1980	253.6	11/20/1981	256.2	1/25/1983	246.4		

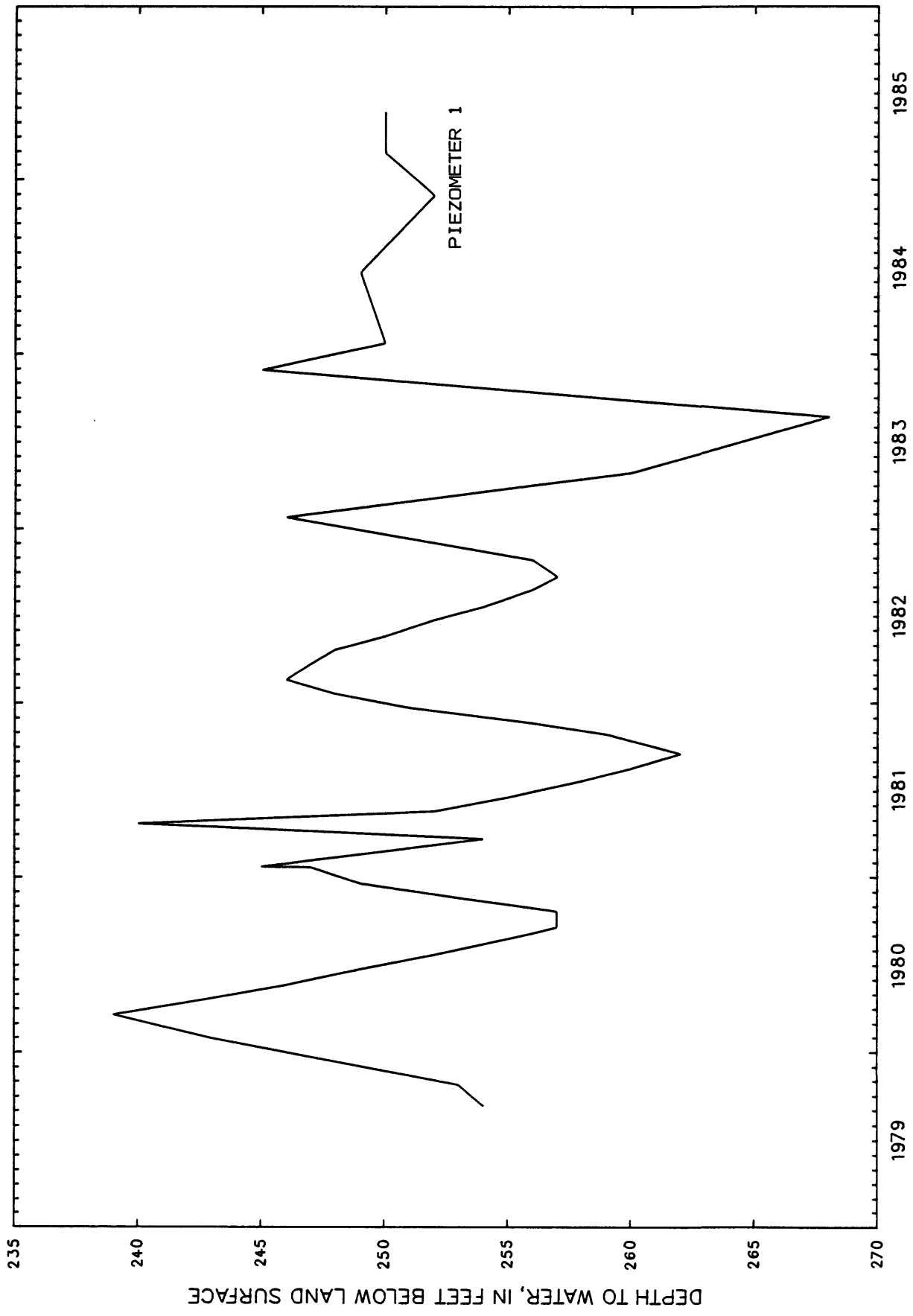


Figure 16. — Water level in piezometer at test hole SG-14B(D-06-09)29BBA3.

Table 15.--Water levels, in feet below land surface, in piezometers at test hole SG-15.

Test Hole	SG-15	(D-06-09)17BABPZ1	Site Id 325427111262801
DATE	WATER LEVEL	DATE	WATER LEVEL
2/20/1979	283.0	4/23/1980	301.9
3/27/1979	281.3	5/21/1980	300.5
5/ 3/1979	281.6	6/23/1980	309.8
6/ 7/1979	286.2	7/23/1980	323.7
7/ 8/1979	303.9	9/19/1980	327.8
8/10/1979	300.2	10/22/1980	311.6
9/12/1979	321.5	11/19/1980	294.0
10/26/1979	325.2	12/19/1980	284.4
2/12/1980	276.7	1/22/1981	287.2
3/20/1980	277.9	2/24/1981	290.7
		3/23/1981	312.5
		4/22/1981	324.9
		5/20/1981	341.3
		6/19/1981	333.4
		12/22/1981	291.0
		1/20/1982	289.0
		10/27/1982	308.9
		1/28/1983	291.0
		4/29/1983	303.6
		8/24/1983	310.5
		11/28/1983	300.3
		1/24/1984	265.9
		6/21/1984	265.3
		11/28/1984	275.6
		2/25/1985	272.5
		5/22/1985	272.5

Test Hole	SG-15	(D-06-09)17BABPZ2	Site Id 325427111262802
DATE	WATER LEVEL	DATE	WATER LEVEL
2/20/1979	204.7	4/17/1980	223.9
3/ 2/1979	215.7	5/21/1980	224.8
5/ 3/1979	210.3	6/23/1980	225.9
6/ 7/1979	223.8	7/23/1980	231.0
7/ 9/1979	227.3	9/19/1980	235.8
8/10/1979	234.8	10/22/1980	230.3
9/12/1979	235.8	11/19/1980	220.4
10/26/1979	239.1	12/19/1980	213.9
2/12/1980	212.2	1/22/1981	217.5
3/20/1980	213.1	2/24/1981	214.7
		3/23/1981	221.6
		4/22/1981	228.3
		5/20/1981	231.4
		6/19/1981	232.6
		12/22/1981	212.8
		1/20/1982	212.1
		10/27/1982	223.9
		1/28/1983	210.6
		4/29/1983	222.9
		8/24/1983	230.8
		11/28/1983	221.0
		1/24/1984	202.7
		6/21/1984	202.1
		11/28/1984	209.9
		2/25/1985	202.4
		5/22/1985	202.2



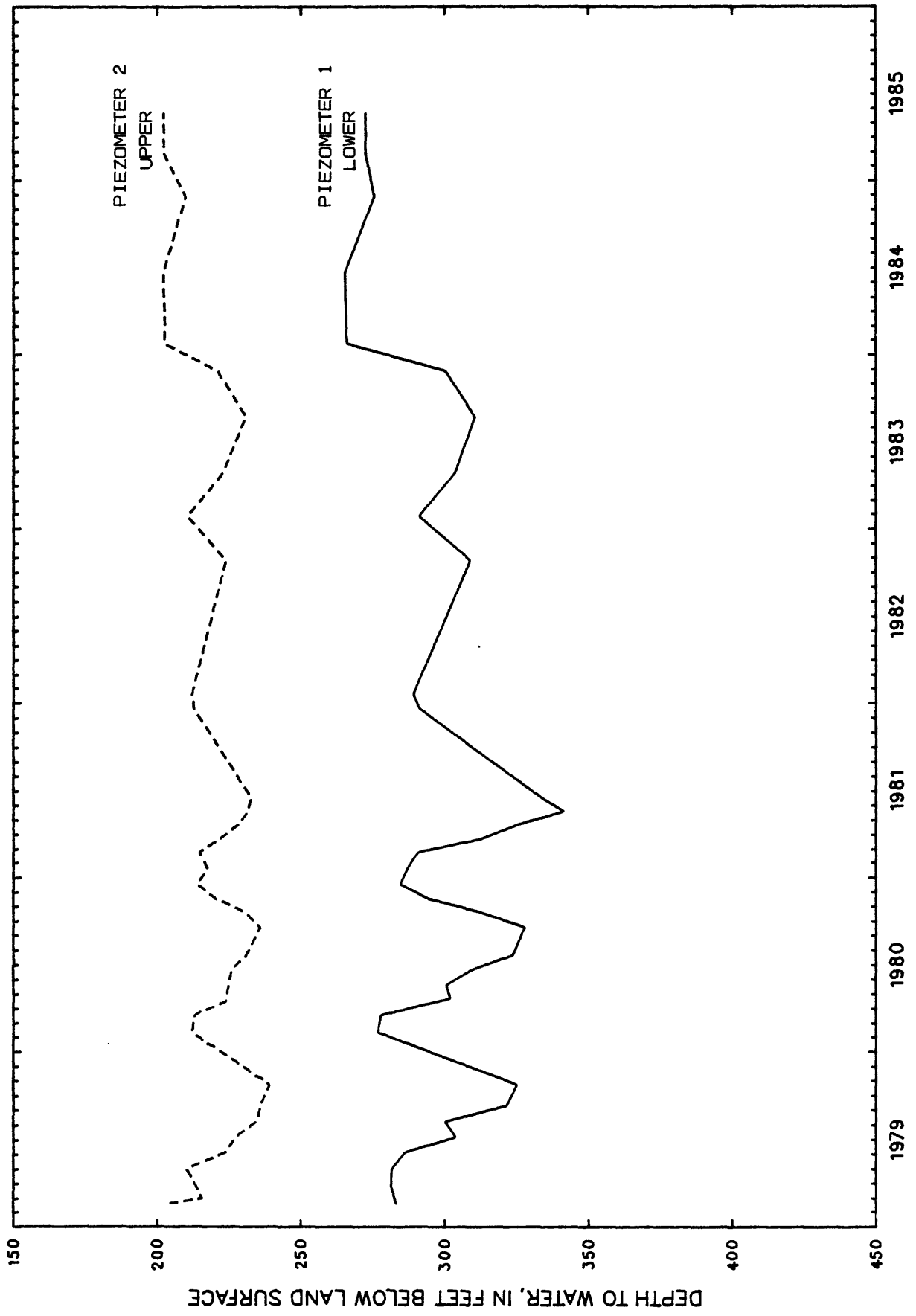


Figure 17.—Water level in piezometers at test hole SG-15 (D-06-09)17BAB.

38 Table 16.--Water levels, in feet below land surface, in piezometers at test hole SG-17.

Test Hole		SG-17 (A-01-07)36ADD1PZ1		Site Id 332315111344801			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
10/23/1979	476.7	11/21/1980	481.1	8/26/1981	487.0	8/19/1982	491.4
12/ 6/1979	475.9	12/23/1980	480.7	9/22/1981	487.8	9/20/1982	492.1
2/11/1980	476.0	1/27/1981	481.7	1/18/1982	485.1	10/21/1982	491.6
3/21/1980	475.6	2/27/1981	482.6	2/19/1982	487.3	1/26/1983	489.5
4/18/1980	476.0	3/26/1981	483.1	3/24/1982	487.1	5/ 2/1983	493.4
6/30/1980	480.6	4/29/1981	484.2	4/22/1982	488.1	8/21/1983	494.6
7/24/1980	480.4	5/26/1981	484.9	5/17/1982	489.0	11/21/1983	492.6
9/23/1980	481.9	6/23/1981	485.4	6/22/1982	489.9		
10/24/1980	480.9	7/24/1981	486.0	7/19/1982	490.8		

Test Hole		SG-17 (A-01-07)36ADD1PZ2		Site Id 332315111344802			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
10/23/1979	489.6	11/21/1980	494.1	8/26/1981	500.6	8/19/1982	505.1
12/ 6/1979	489.5	12/23/1980	493.6	9/22/1981	501.5	9/20/1982	504.8
2/11/1980	489.6	1/27/1981	494.8	1/18/1982	499.8	10/21/1982	504.3
3/21/1980	488.6	2/27/1981	494.9	2/19/1982	499.9	1/26/1983	504.3
4/18/1980	490.3	3/26/1981	495.2	3/24/1982	500.0	5/29/1983	506.5
6/20/1980	494.6	4/29/1981	497.5	4/22/1982	501.0	8/21/1983	507.4
7/24/1980	494.4	5/26/1981	498.5	5/17/1982	501.9	11/21/1983	505.3
9/23/1980	494.4	6/23/1981	498.7	6/22/1982	503.2		
10/24/1980	494.3	7/24/1981	499.4	7/19/1982	504.0		

Test Hole		SG-17 (A-01-07)36ADD1PZ3		Site Id 332315111344803			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
10/23/1979	490.8	11/21/1980	493.4	8/26/1981	499.4	8/19/1982	503.4
12/ 6/1979	488.2	12/31/1980	493.2	9/22/1981	500.0	9/20/1982	504.1
2/11/1980	488.3	1/27/1981	493.6	1/18/1982	499.2	10/21/1982	504.3
3/21/1980	487.7	2/27/1981	493.4	2/19/1982	499.5	1/26/1983	503.6
4/18/1980	489.3	3/26/1981	494.6	3/24/1982	499.6	5/29/1983	504.7
6/30/1980	492.8	4/29/1981	496.2	4/22/1982	500.3	8/21/1983	505.5
7/24/1980	492.7	5/26/1981	497.0	5/17/1982	502.0	11/21/1983	503.6
9/23/1980	493.4	6/23/1981	497.5	6/22/1982	502.2		
10/24/1980	493.4	7/24/1981	498.2	7/19/1982	503.0		

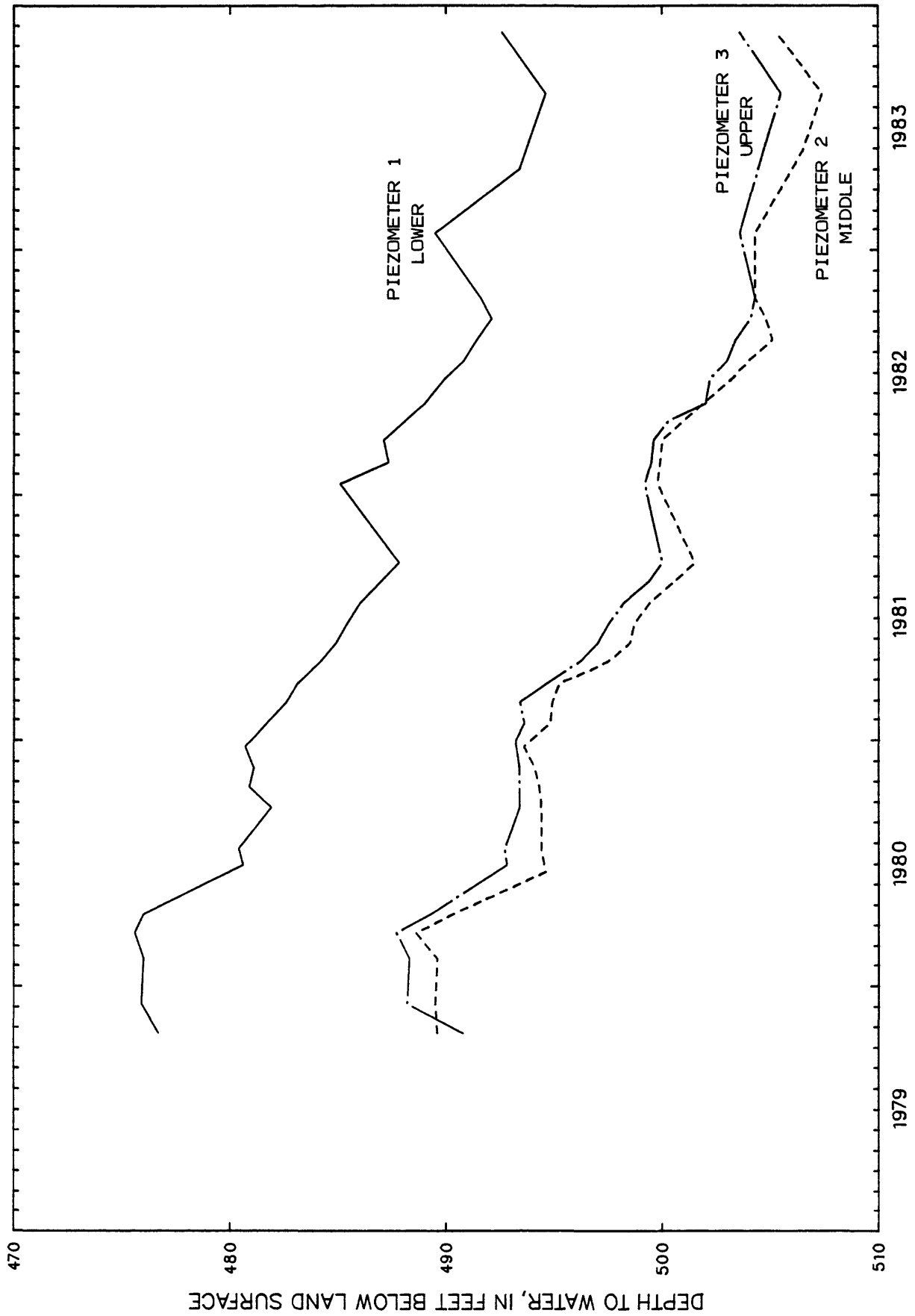


Figure 18. ---Water levels in piezometers at test hole SG-17 (A-01-07)36ADD1.

Table 17.--Water levels, in feet below land surface, in piezometer at test hole SG-18.

Test Hole	SG-18	(A-01-07)15CDCPZ1	Site Id	33252111373401	
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/16/1979	477.2	11/15/1979	477.7	11/21/1980	484.3
3/26/1979	478.6	2/ 1/1980	484.6	12/22/1980	485.2
5/ 1/1979	479.5	3/11/1980	482.4	3/25/1981	484.9
6/ 8/1979	480.3	4/17/1980	481.6	4/27/1981	487.1
7/10/1979	482.7	6/30/1980	483.7	5/26/1981	487.7
8/ 8/1979	479.8	7/24/1980	483.5	6/23/1981	486.2
9/14/1979	479.4	9/23/1980	483.5	8/18/1981	487.4
10/23/1979	480.5	10/27/1980	483.9	1/29/1982	488.5
				10/20/1982	491.1
				1/26/1983	492.0
				4/28/1983	495.0
				8/22/1983	493.3
				11/21/1983	492.0

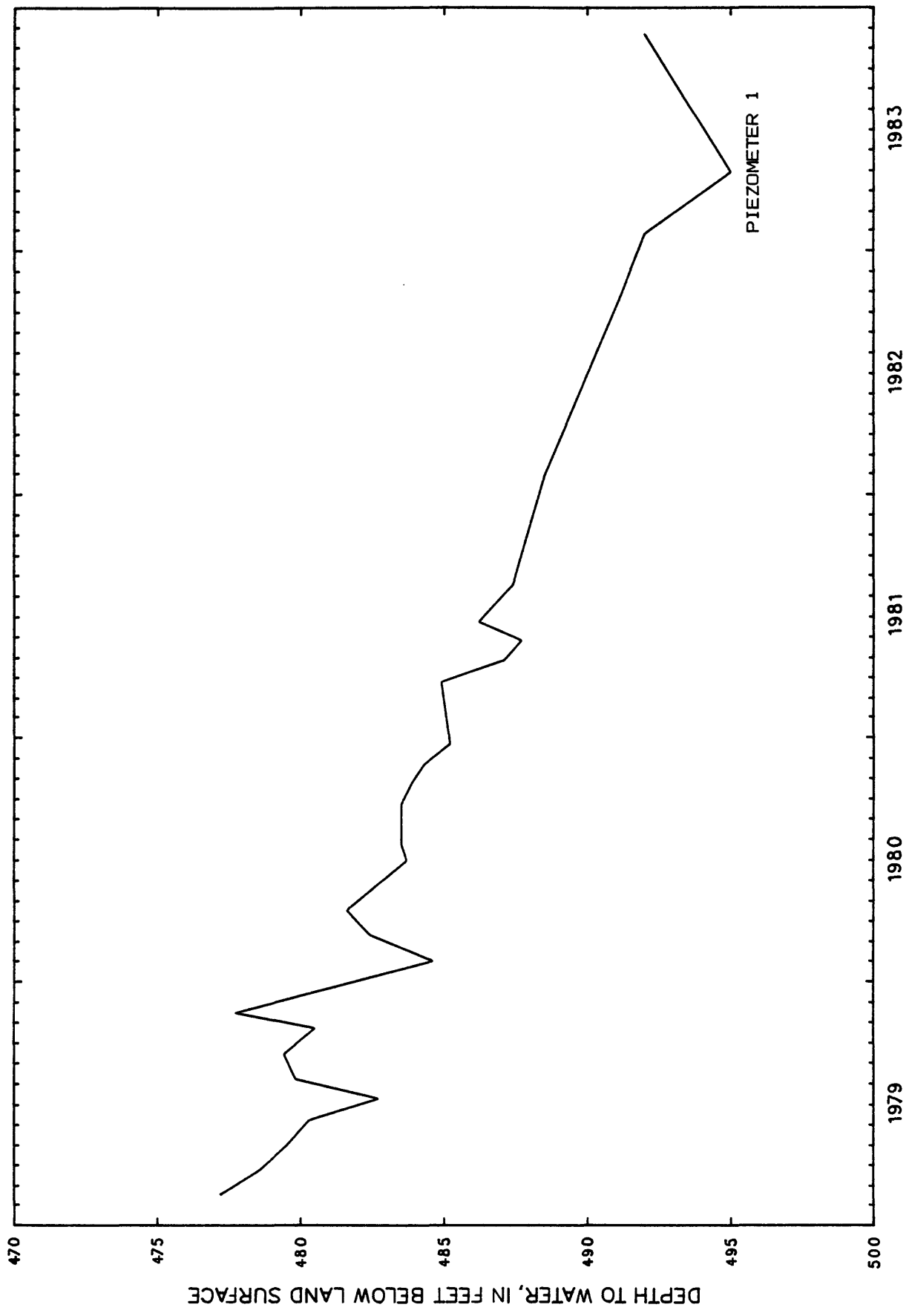


Figure 19. ---Water level in piezometer at test hole SG-18 (A-01-07)15CDC.

Table 18.--Water levels, in feet below land surface, at test hole SG-21.

Test Hole	SG-21	(D-01-08)06MAAA	Site Id 33224011344901		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
12/20/1979	453.3	5/26/1981	461.4	5/17/1982	465.9
3/21/1980	453.1	6/23/1981	461.5	6/22/1982	466.1
4/18/1980	453.9	7/24/1981	462.3	7/19/1982	467.2
6/30/1980	457.0	8/18/1981	463.6	8/19/1982	467.6
11/25/1980	458.1	9/22/1981	464.3	9/20/1982	468.5
12/22/1980	457.7	1/18/1982	464.4	10/21/1982	468.6
2/27/1981	458.7	2/19/1982	464.4	1/26/1983	468.2
3/26/1981	460.1	3/24/1982	464.5	5/29/1983	468.7
4/29/1981	460.7	4/23/1982	464.9	8/21/1983	469.3
				2/23/1984	469.6
				6/25/1984	470.9
				11/27/1984	472.0
				2/20/1985	473.9
				5/21/1985	475.2

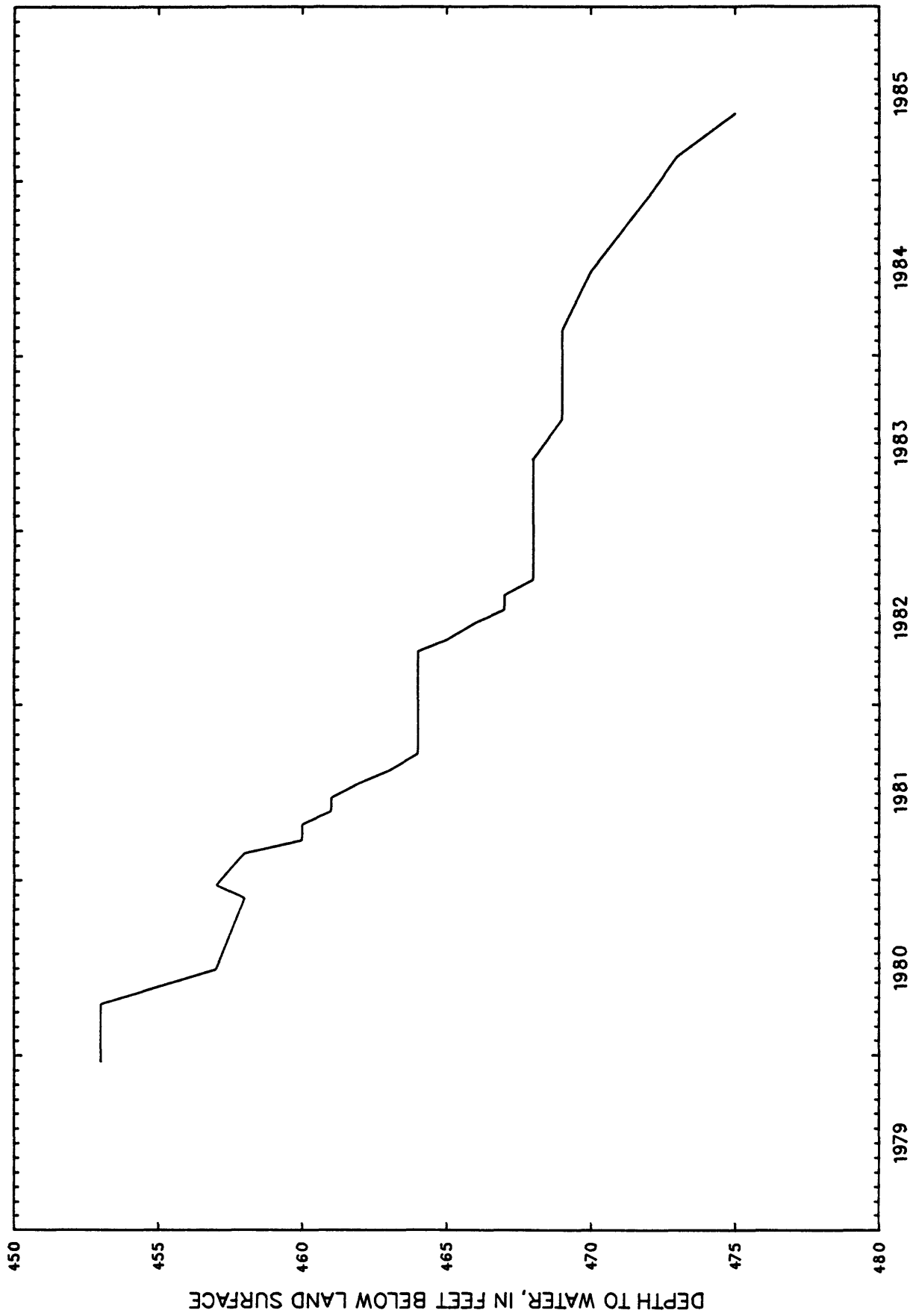


Figure 20. ---Water level at test hole SG-21 (D-01-08)06WAAA.

44 Table 19.--Water levels, in feet below land surface, in piezometers at test hole SG-22.

Test Hole	SG-22	(A-01-07)35ACCPZ1		Site Id	332312111362001		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/16/1979	437.4	2/ 1/1980	442.6	2/27/1981	451.1	8/21/1983	457.0
3/26/1979	444.3	3/13/1980	443.3	3/25/1981	452.0	11/21/1983	456.1
5/11/1979	443.4	4/17/1980	442.9	4/27/1981	454.8	1/26/1984	455.9
6/ 8/1979	446.1	6/30/1980	451.8	5/26/1981	454.7	2/23/1984	456.7
7/10/1979	444.3	7/24/1980	450.6	6/23/1981	455.1	6/23/1984	457.8
8/ 8/1979	449.7	9/23/1980	449.3	8/18/1981	457.7	11/27/1984	458.2
9/14/1979	446.5	10/27/1980	448.2	1/29/1982	452.4	2/20/1985	460.0
10/22/1979	447.1	11/21/1980	448.1	10/20/1982	457.9	5/21/1985	460.8
11/15/1979	446.6	12/22/1980	447.8	1/26/1983	456.3		
12/20/1979	444.4	1/27/1981	451.0	4/28/1983	458.5		

Test Hole	SG-22	(A-01-07)35ACCPZ2		Site Id	332312111362002		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/16/1979	437.7	2/ 1/1980	444.4	2/27/1981	451.9	8/21/1983	458.1
3/25/1979	439.8	3/13/1980	448.0	3/25/1981	452.6	11/21/1983	457.0
5/ 1/1979	444.8	4/17/1980	443.9	4/27/1981	455.5	1/26/1984	457.2
6/ 8/1979	447.6	6/30/1980	452.5	5/26/1981	455.3	6/23/1984	458.2
7/10/1979	448.7	7/24/1980	452.6	6/23/1981	455.5	11/21/1984	458.9
8/ 8/1979	450.2	9/23/1980	449.8	8/18/1981	458.4	2/20/1985	460.6
9/14/1979	447.6	10/27/1980	448.8	1/29/1982	452.9	5/21/1985	461.3
10/22/1979	450.7	11/21/1980	448.5	10/20/1982	458.5		
11/15/1979	446.0	12/22/1980	449.0	1/26/1983	456.9		
12/20/1979	444.9	1/27/1981	451.8	4/28/1983	458.9		

Test Hole	SG-22	(A-01-07)35ACCPZ3		Site Id	332312111362003		
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
2/16/1979	269.2	2/ 1/1980	270.2	2/27/1981	269.3	8/21/1983	271.8
3/26/1979	272.4	3/13/1980	270.5	3/25/1981	269.3	11/21/1983	271.0
5/ 1/1979	272.1	4/17/1980	269.6	4/27/1981	269.8	1/26/1984	271.0
6/ 8/1979	272.9	6/30/1980	270.7	5/26/1981	270.1	6/23/1984	271.9
7/10/1979	271.3	7/24/1980	269.9	6/23/1981	269.7	11/27/1984	272.5
8/ 8/1979	271.6	9/23/1980	269.4	8/18/1981	270.3	2/20/1985	274.1
9/14/1979	270.5	10/27/1980	269.5	1/29/1982	270.7	5/21/1985	274.9
10/22/1979	273.7	11/21/1980	269.5	10/20/1982	270.4		
11/15/1979	271.7	12/22/1980	269.7	1/26/1983	270.4		
12/20/1979	271.2	1/27/1981	270.4	4/28/1983	272.6		



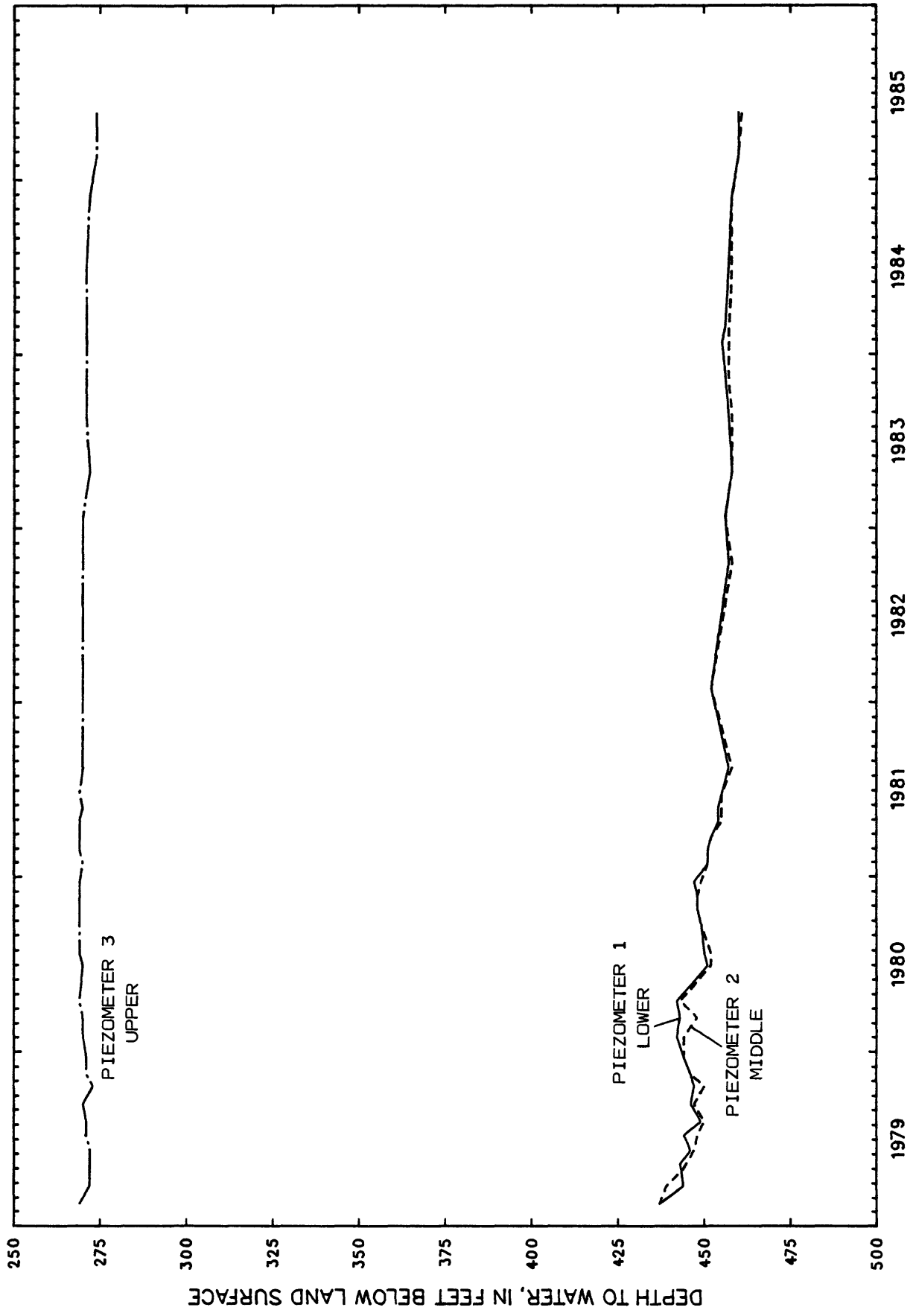


Figure 21.--Water levels in piezometers at test hole SG-22 (A-01-07)35ACC.

Table 20.--Water levels, in feet below land surface, in piezometers at test hole SG-23.

Test Hole	SG-23	(D-04-10)180CDPZ1	Site Id 330435111212601
DATE	WATER LEVEL	DATE	WATER LEVEL
7/12/1979	224.6	10/23/1980	204.3
8/ 9/1979	222.9	11/19/1980	207.7
9/14/1979	219.3	12/19/1980	206.8
4/23/1980	205.4	1/23/1981	207.6
5/22/1980	204.5	2/24/1981	208.2
7/28/1980	205.6	3/24/1981	206.5
9/22/1980	207.9	4/24/1981	214.9
		5/21/1981	221.0
		8/20/1981	233.1
		12/22/1981	222.4
		1/21/1982	219.1
		10/28/1982	229.4
		1/27/1983	224.7
		10/25/1983	225.7
		11/29/1983	225.9
		1/24/1984	225.7
		6/20/1984	227.0
		11/28/1984	203.3
		2/22/1985	202.6
		5/22/1985	203.2

Test Hole	SG-23	(D-04-10)180CDPZ2	Site Id 330435111212602
DATE	WATER LEVEL	DATE	WATER LEVEL
1/12/1979	222.4	10/23/1980	203.1
8/ 9/1979	221.0	11/19/1980	206.4
9/14/1979	217.8	12/19/1980	205.9
4/23/1980	203.0	1/23/1981	206.2
5/22/1980	202.4	2/24/1981	207.4
7/28/1980	207.4	3/24/1981	206.1
9/22/1980	206.4	4/24/1981	213.8
		5/21/1981	219.4
		8/20/1981	229.3
		12/22/1981	220.9
		1/21/1982	218.0
		10/28/1982	228.3
		1/27/1983	224.3
		10/25/1983	224.7
		11/29/1983	224.8
		1/24/1984	224.5
		6/20/1984	225.9
		11/28/1984	202.5
		2/22/1985	201.8
		5/22/1985	203.1

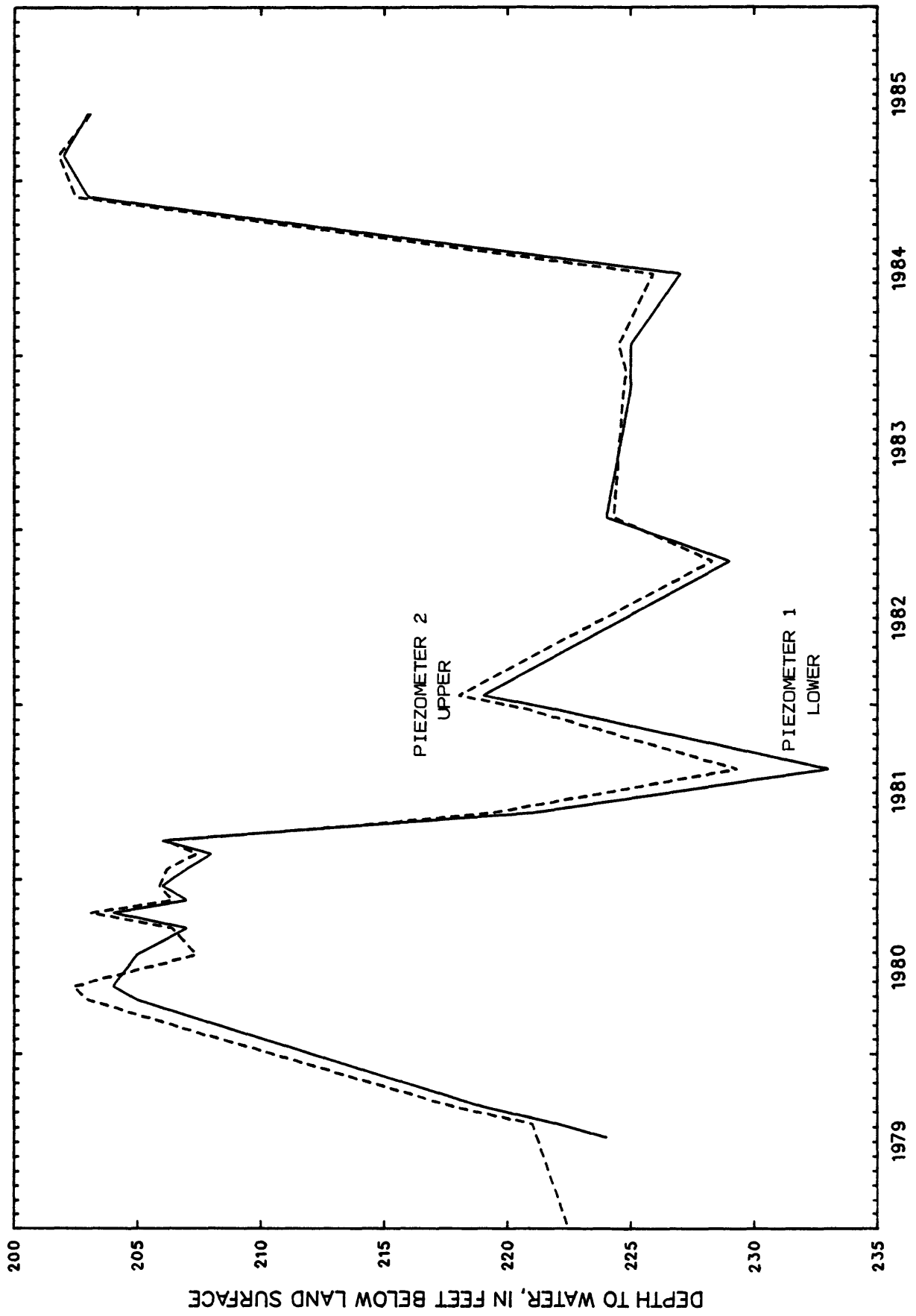


Figure 22.—Water levels in piezometers at test hole SG-23 (D-04-10)18DCD.

Table 21.--Water levels, in feet below land surface, at test hole SG-24.

Test Hole	SG-24	(D-01-08)05CCC	Site Id 33220011334401			
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
6/24/1981	367.8	10/22/1982	369.5	11/28/1983	371.3	
7/24/1981	366.9	1/26/1983	369.6	1/27/1984	371.2	
11/20/1981	365.8	5/ 2/1983	371.2	2/23/1984	371.4	
1/28/1982	368.3	8/22/1983	372.2	6/25/1984	372.2	
				11/27/1984	372.9	
				2/20/1985	374.7	
				5/21/1985	370.8	

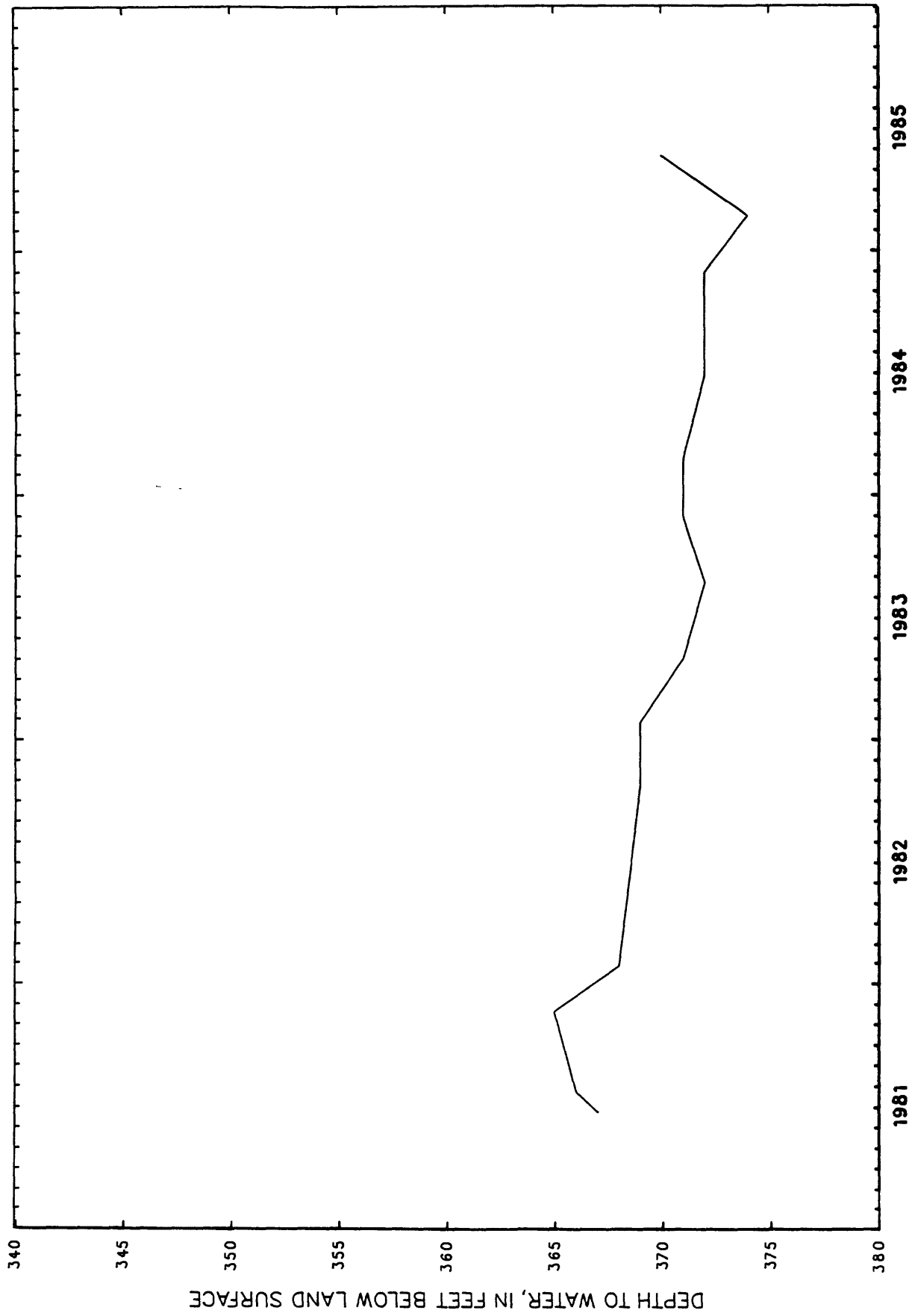


Figure 23. ---Water level at test hole SG-24 (D-01-08)05CCC.