UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GROUND-WATER DATA FOR GEORGIA, 1982

By H. R. Stiles and S. E. Matthews

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Prepared in cooperation with the
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
GEORGIA GEOLOGIC SURVEY

Doraville, Georgia

1983

UNITED STATES DEPARTMENT OF THE INTERIOR

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PREFACE

Data used in this report were collected by the U.S. Geological Survey in cooperation with the State of Georgia; Chatham County; Glynn County; the cities of Brunswick and Valdosta; and the Albany Water, Gas, and Light Commission.

Records of all water-level measurements and water-quality data used in this report may be obtained upon request from the U.S. Geological Survey, Water Resources Division, 6481 Peachtree Industrial Boulevard, Suite B, Doraville, GA 30360.

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM (SI) UNITS

Multiply	By	To obtain
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
gallon per minute (gal/min) (gpm)	0.06309	liter per second (L/s)
million gallons per day (Mgal/d)	0.04381	cubic meter per second (m^3/s)
	43.81	liters per second (L/s)

National Geodetic Vertical Datum of 1929 (NGVD of 1929): A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "Mean Sea Level." NGVD of 1929 is referred to as sea level in this report.

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County	Aquifer	Well number	Well name	Page
Glynn	Principal artesian	33J044	Test well 27	125
Glynn	Principal artesian	34H391	Test well 16	123
Glynn	Principal artesian	34H426	Test well 25	121
Lamar	Water table	12Z001	Dixie Pipeline	19
Laurens	Principal artesian	21T001	Hogan	83
Liberty	Principal artesian	34M054	Test well 2	109
Liberty	Principal artesian	34N089	Test well 1	111
Long	Principal artesian	33M004	Test well 3	107
Lowndes	Principal artesian	19E009	Valdosta	79
Lowndes	Principal artesian	19F039	Valdosta 8	77
McIntosh	Principal artesian	35M013	Harris Neck	113
Miller	Principal artesian	08G001	Fleet	65
Mitchell	Principal artesian	10G313	Meinders	61
Mitchell	Principal artesian	13J004	Wright	59
Montgomery	Principal artesian	25Q001	Uvalda School	85
Randolph	Clayton	07N001	Cuthbert	37
Rockdale	Crystalline rock	13DD90	GAR 1	13
Seminole	Principal artesian	06F085	Spooner	67
Spalding	Water table	11AA01	Experiment Sta.	17
Tift	Principal artesian	17K001	SCL Railroad	73
Toombs	Principal artesian	26R001	Vidalia 2	87
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Walker	Paleozoic rock	03PP01	Fort Oglethorpe	7

List of observation wells for which hydrographs are included in this report--Continued

County	Aquifer	Well number	Well name	Page
Wayne	Principal artesian	30L003	Johnson	103
Wayne	Principal artesian	31L001	Mears 2	105
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ABSTRACT

Continuous water-level records from 105 wells, and more than 2,000 water-level measurements made in Georgia during 1982 provide the basic data for this report. Selected wells illustrate the effects that changes in recharge and pumpage have had on the various ground-water resources in the State. Daily mean water levels are shown in hydrographs for 1982. Monthly means are shown for the 10-year period 1973-82. Mean annual water levels ranged from 10 feet higher to 1 foot lower in 1982 than in 1981. This is a significant reversal of the downward trend of the past few years. Water-quality samples are collected periodically throughout Georgia and analyzed as part of areal and regional ground-water studies. Along the coast, chloride concentrations have remained stable in the Savannah area, but invasion of brackish water into the aquifer has increased the chloride concentration at Brunswick.

1.0 INTRODUCTION

Monitoring ground-water levels and water quality is essential to the management of a ground-water reservoir or aquifer. Fluctuations and long-term trends in water levels occur as a result of recharge to and discharge from the aquifer. Recharge varies in response to precipitation, evapotranspiration, and surface-water infiltration into the aquifer. Discharge occurs as natural flow from the aquifer to streams and springs, direct ground-water evapotranspiration, and withdrawal from wells.

Ground-water levels have been monitored in Georgia for at least a hundred years. In the early years, these data were used in areal reconnaissance studies, and published, usually as tables, with a few graphs of water-level trends. These data had limited value, especially considering the time lag between data collection and publication.

As part of the cooperative ground-water investigations undertaken by the U.S. Geological Survey and the State of Georgia, a statewide water-level measurement program to monitor long-term trends was begun in 1938. This program initially consisted of an observation well network to provide long-term data on changes in ground-water storage in the coastal area. Other wells were added in areas where changes in water levels might forewarn of potential water-quality problems. More than 2,000 water-level measurements were made in Georgia during 1982, and 105 wells were monitored continuously.

This report continues a series of publications that annually presents both water-level and water-quality data for Georgia. Forty-nine wells have been selected to illustrate the effects that changes in recharge and pumpage have had on the various aquifers in the State. Daily mean water levels are shown in hydrographs for 1982. Monthly mean water levels, as well as

chloride concentrations in selected areas along the coast, are shown for the 10-year period 1973-82. Because the 1982 hydrographs are plotted from daily mean values, the record low or high water level occurring on a day will be lower or higher than that shown on the hydrograph, which shows the mean for that day.

The cooperation and assistance of the following agencies in collecting water-level and water-quality data during 1982 are gratefully acknowledged: Georgia Department of Natural Resources, Georgia Geologic Survey; Chatham County; Glynn County; the cities of Brunswick and Valdosta; and the Albany Water, Gas, and Light Commission.

2.0 GROUND-WATER LEVELS

Mean annual ground-water levels in Georgia ranged from 10 feet higher to 1 foot lower in 1982 than in 1981. Of the 40 wells in the 1981 report, 23 had water levels that were the lowest on record. Of the 49 wells in this report, only 2 had new record lows.

Above-normal precipitation in 1982 resulted in a reduction in pumpage for irrigation. There was also a reduction in industrial water use, chiefly in the pulp and paper industry. These factors enabled water levels to recover from the record lows of 1981.

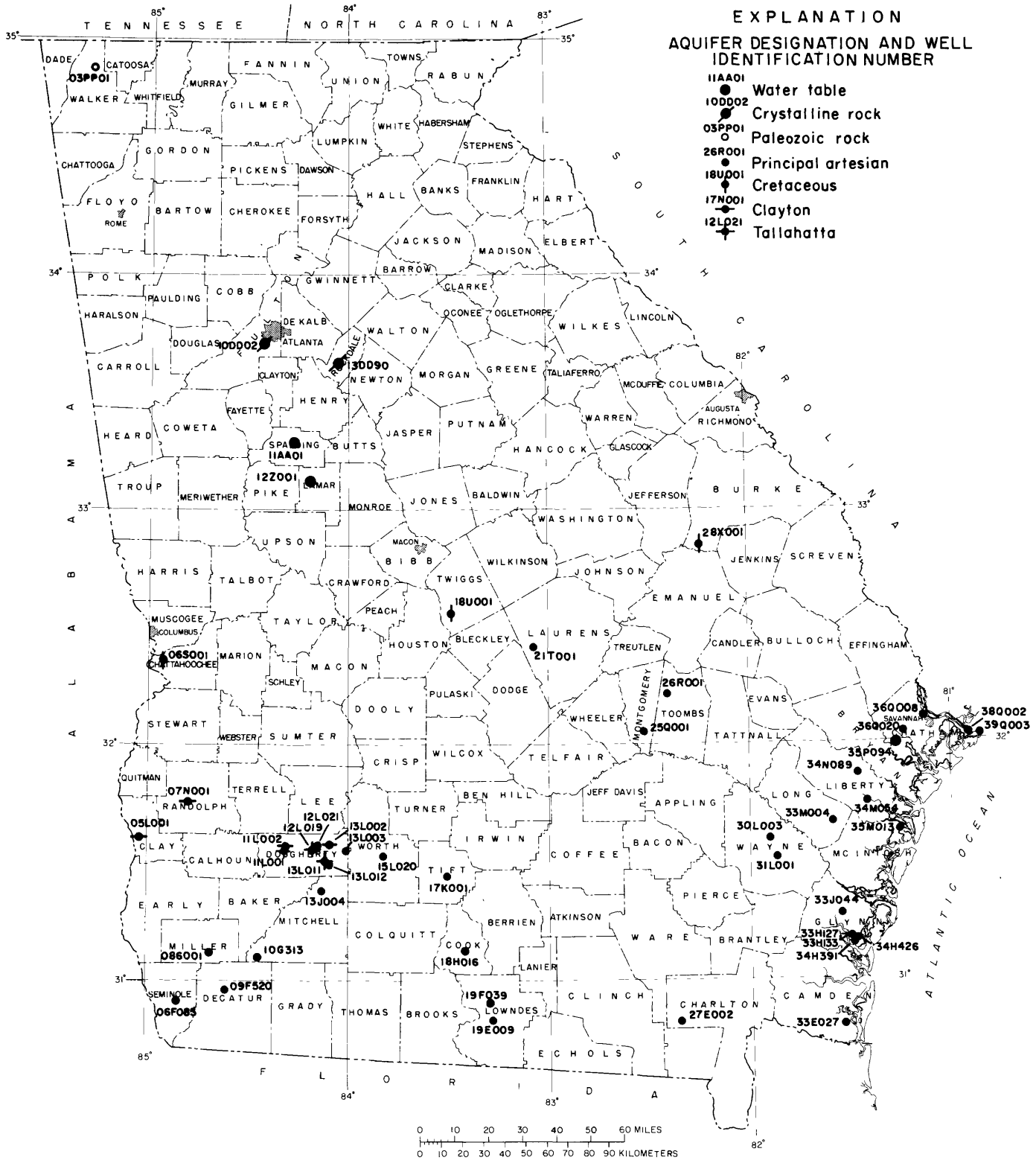

Figure 2.0–1.——Locations of observation wells for which hydrographs are included in this report.

2.1 Paleozoic Rock Aquifers

Ground-water levels in the Paleozoic rock aquifers are affected mainly by changes in precipitation. Rainfall in the area is heavy in winter and midsummer and relatively light in spring and autumn. Water levels generally are at their highest for the year in March or April and at their lowest for the year in October, November, and December.

Wells in areas having a thin soil cover commonly show a rapid response to heavy rainfall and may experience a water-level rise of several feet within a few minutes or hours. In areas having a thick soil cover, wells may show little response to individual rainfall events, but undergo a gradual rise in water level during wet periods. Most wells experience a slow decline in water level between rainfall events.

The hydrographs for observation well 03PP01 (Fort Oglethorpe) illustrate the cyclic effects that precipitation has on water levels in areas of thin soil cover.

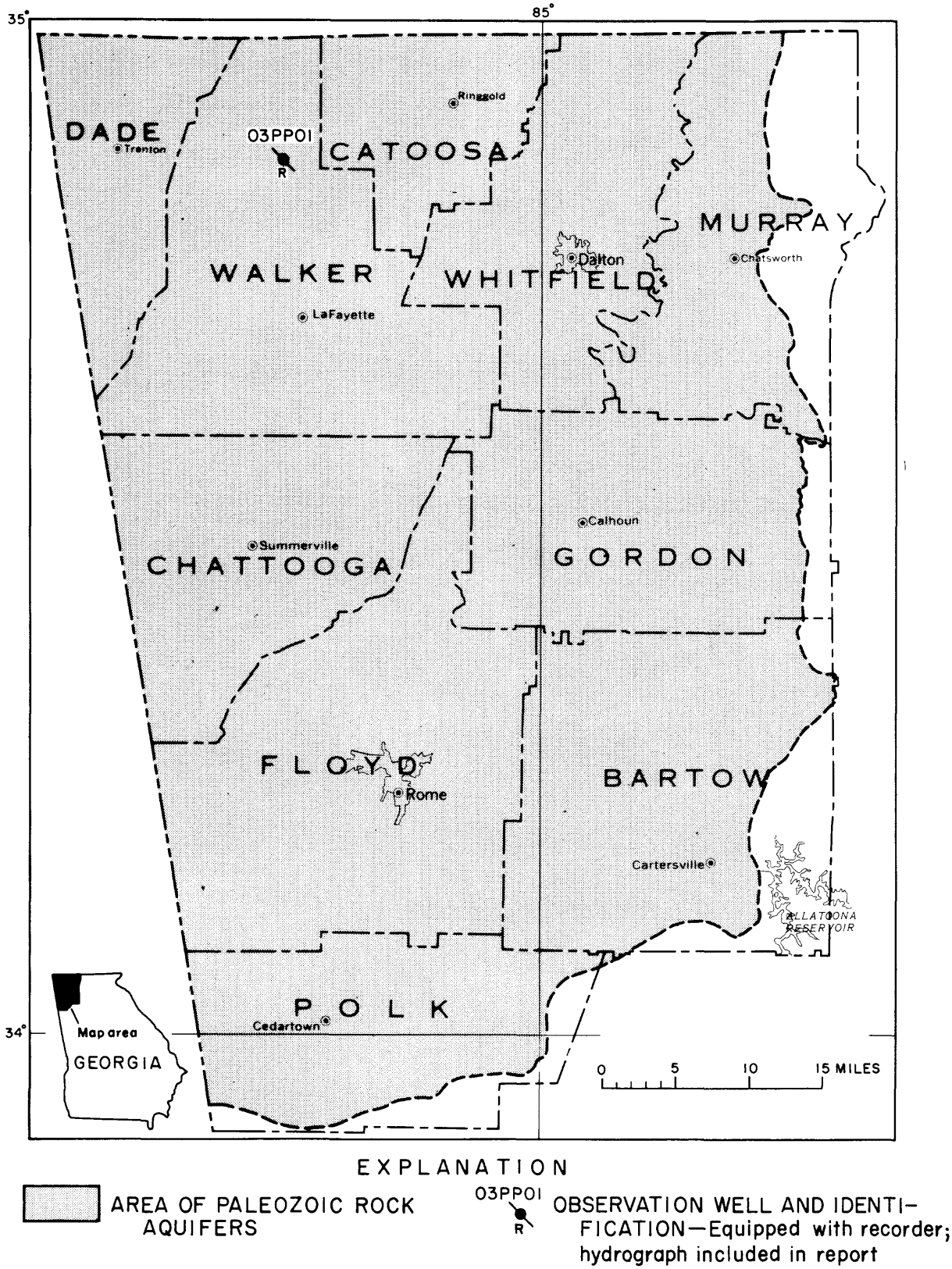

Figure 2.1—1.—Location of observation well in the Paleozoic aquifers.

03PP01 FORT OGLETHORPE WALKER COUNTY

345403085160001 Local number, 03PP01.
LOCATION.--Lat 34°54'03", long 85°16'00", Hydrologic Unit 06020001, Chickamauga and Chattanooga National Military Park in Glenn Field.
Owner: National Park Service, Fort Oglethorpe
AQUIFER.--Chickamauga Limestone.
WELL CHARACTERISTICS.--Cable-tooled, unused observation well, diameter 8 in., depth 72 ft.
DATUM.--Altitude of land-surface datum is 730 ft.
Measuring point: Pointer on recorder shelter, 2.09 ft above land surface.
REMARKS.--Well sounded October 18, 1977.
PERIOD OF RECORD.--1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.86 ft below land-surface datum, April 3, 1979; lowest, 21.70 ft below land-surface datum, August 5, 1978.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9.58	10.12	10.12	11.62	10.80	14.92	17.60	19.09	18.54	19.90	20.18	4.09
2	10.74	6.86	10.59	11.71	10.82	15.07	17.73	19.12	18.68	19.92	17.22	9.12
3	5.64	5.60	10.67	11.78	10.90	15.24	17.81	19.14	18.78	19.96	14.47	10.74
4	5.35	9.66	10.72	11.91	10.92	15.38	17.88	19.16	18.86	19.98	14.72	8.81
5	9.94	10.63	10.76	11.17	11.02	15.48	17.96	19.24	18.92	20.02	15.95	5.64
6	10.71	10.70	9.06	11.34	11.15	15.60	18.08	19.28	18.98	20.05	16.58	9.52
7	10.78	10.72	6.95	11.49	9.12	15.72	18.19	19.30	19.03	20.06	17.18	10.74
8	10.83	10.76	9.81	9.72	9.29	15.84	18.24	19.32	19.09	20.07	17.70	10.84
9	10.84	7.66	10.62	10.39	10.77	15.96	18.28	19.00	19.14	20.08	17.96	10.98
10	10.99	9.65	10.70	10.76	10.83	16.10	18.34	18.96	19.19	20.10	18.06	11.15
11	11.18	10.63	10.74	10.79	10.92	16.26	18.39	19.08	19.25	20.12	18.25	7.12
12	11.32	10.69	10.77	10.80	11.06	16.37	18.45	19.14	19.30	19.70	18.47	7.05
13	11.48	10.69	10.80	10.82	11.25	16.48	18.50	19.20	19.35	18.22	18.60	10.34
14	11.68	10.73	10.81	10.84	11.48	16.59	18.55	19.24	19.38	19.48	18.66	10.74
15	11.92	10.64	7.26	10.90	11.72	16.68	18.60	19.30	19.41	19.71	18.74	7.76
16	12.23	7.42	8.84	10.98	12.00	16.78	18.65	19.34	19.45	19.61	18.80	7.92
17	12.50	7.28	10.49	8.58	12.28	16.42	18.70	16.58	19.49	19.88	14.64	10.52
18	12.65	10.02	10.60	9.80	12.54	16.44	18.74	17.50	19.52	19.92	12.10	10.74
19	12.22	10.64	10.68	10.68	12.79	16.73	18.78	18.20	19.57	19.94	12.36	10.76
20	8.10	10.68	10.72	10.72	13.00	16.94	18.82	18.48	19.58	19.97	12.70	10.80
21	5.52	10.74	10.77	9.82	13.18	17.12	18.88	18.64	19.62	19.99	12.47	10.88
22	9.44	10.79	10.80	10.68	13.36	17.22	18.92	18.74	19.66	20.01	12.00	11.00
23	7.22	10.80	10.81	10.74	13.56	17.30	18.96	18.50	19.69	20.02	12.60	11.10
24	9.94	10.82	10.82	10.76	13.70	17.39	18.88	18.16	19.71	20.04	13.02	11.02
25	10.66	10.87	10.84	6.18	13.85	17.50	18.66	18.56	19.74	20.06	13.40	10.88
26	10.74	9.68	10.92	7.65	14.00	17.60	18.82	18.72	19.77	20.08	13.72	10.84
27	10.78	6.44	11.04	10.37	14.15	17.70	18.89	17.90	19.80	20.10	13.97	10.84
28	10.82	8.04	11.18	10.68	14.30	17.74	18.96	16.59	19.84	20.12	9.66	8.06
29	10.85	---	11.28	10.74	14.45	17.18	19.02	18.00	19.86	20.13	8.66	10.40
30	10.86	---	11.38	10.78	14.60	17.34	19.06	18.34	19.88	20.15	7.90	10.71
31	8.71	---	11.49	---	14.76	---	19.08	18.46	---	20.16	---	10.76
MEAN	10.20	9.64	10.42	10.51	12.21	16.50	18.53	18.65	19.37	19.93	15.02	9.74

CAL YR 1982 MEAN 14.25 HIGH 4.09 LOW 20.18

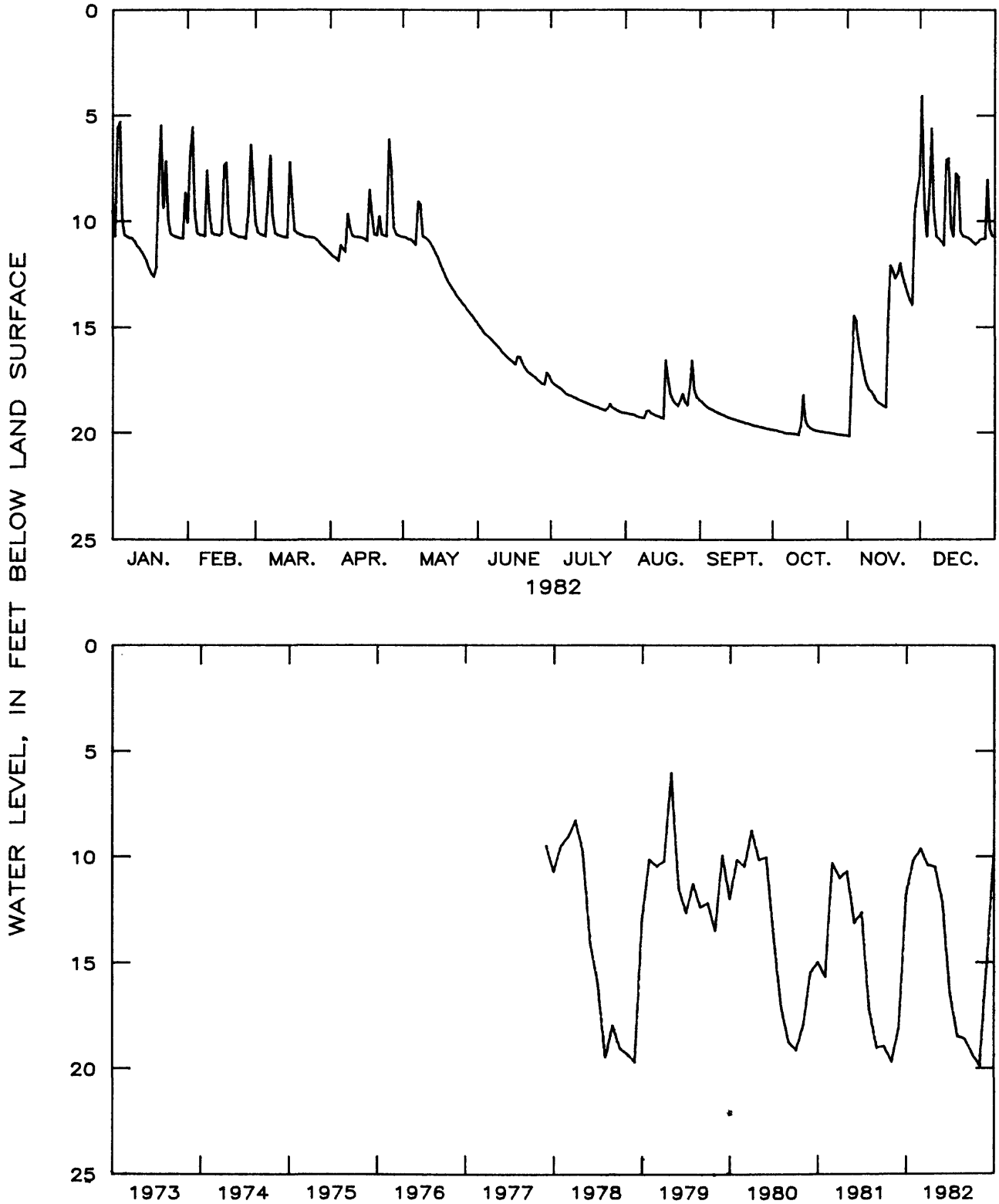

Figure 2.1—2.——Water level in observation well 03PP01, Walker County.

2.2 Crystalline Rock Aquifers

Ground-water levels in the crystalline rock aquifers are affected mainly by seasonal changes in precipitation and evapotranspiration. Rainfall in the area is heavy in winter and midsummer and relatively light in spring and autumn. Autumn is the driest season of the year. Ground-water levels rise rapidly with the onset of late winter rains and reduced evapotranspiration, and generally reach their highest levels for the year in March or April. Increases in evapotranspiration and decreases in rainfall during the spring and early summer cause ground-water levels to decline. Heavy precipitation in midsummer may cause small rises in ground-water levels, but the lack of recharge from light rainfall in the autumn results in water levels declining to the annual lows, generally in October or November.

Water levels in the crystalline rock aquifers were from 0.2 foot to 4.1 feet higher in 1982 than in 1981.

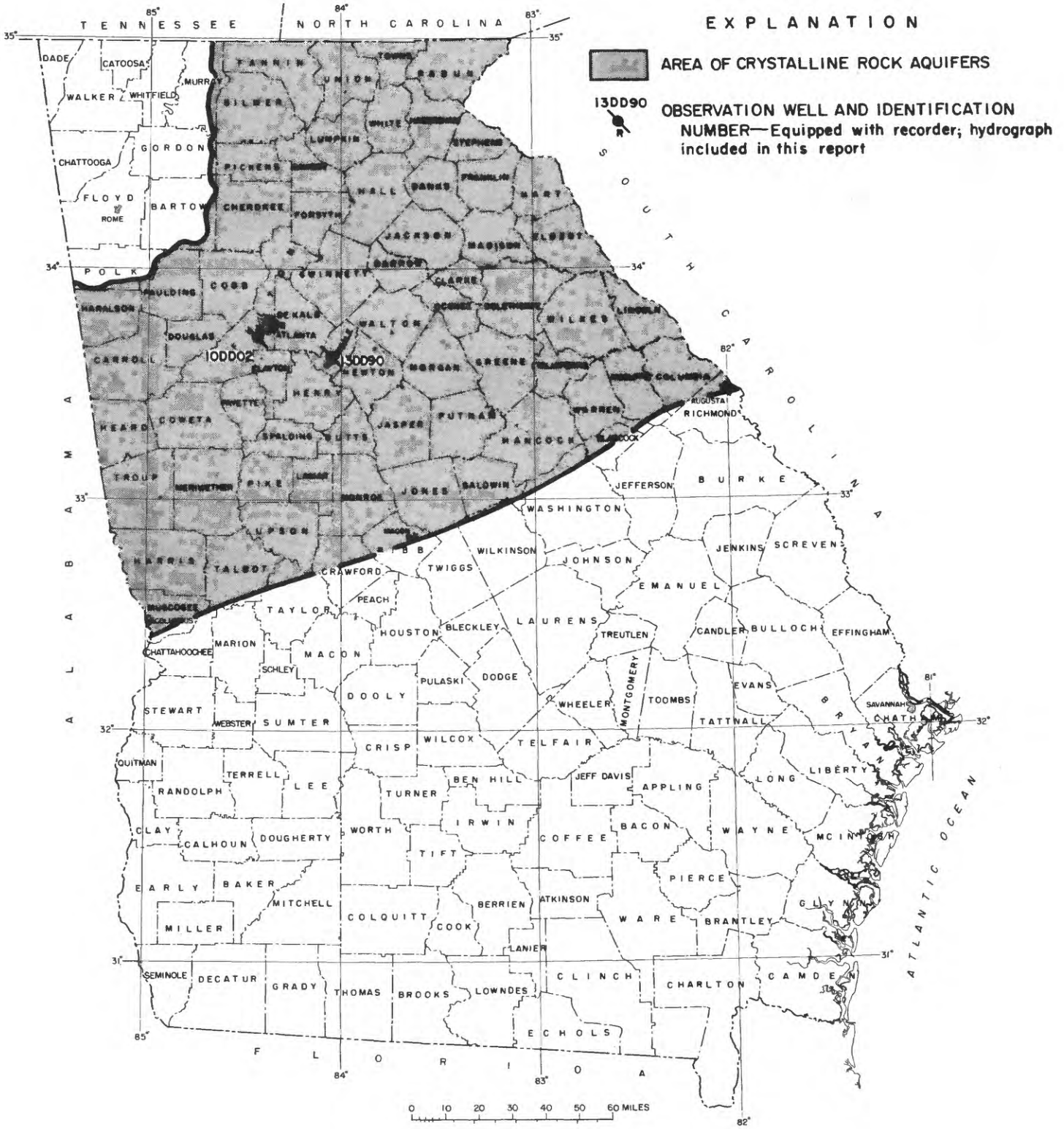

Figure 2.2–1.—Locations of observation wells in the crystalline rock aquifers.

10DD02 FORT MCPHERSON FULTON COUNTY

334207084254801 Local number, 10DD02.
LOCATION.--Lat 33°42'07", long 84°25'48", Hydrologic Unit 03130002, 0.25 mi south of main entrance, 260 ft west of Roosevelt Highway.
Owner: U.S. Army, Fort McPherson.
AQUIFER.--Biotite gneiss.
WELL CHARACTERISTICS.--Drilled unused supply well, diameter 12 in., depth 338 ft, cased to 41 ft, open hole.
DATUM.--Altitude of land-surface datum is 1,013 ft.
Measuring point: At land-surface datum.
REMARKS.--Well pumped and sounded February 14, 1976, to a depth of 338 ft. Borehole geophysical survey conducted November 19, 1974. Water levels for periods of missing recorder record, January 18-25, February 26-28, March 2-10, and 12-28, were estimated.
PERIOD OF RECORD.--November 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.10 ft below land-surface datum, March 30, 1980; lowest, 7.52 ft below land-surface datum, November 8, 1978.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.04	3.96	3.63	3.48	3.18	4.73	5.42	4.74	5.53	6.16	5.76	5.52
2	5.06	3.44	3.62	3.48	3.18	4.86	5.49	4.74	5.38	6.06	5.70	5.46
3	4.86	3.38	3.63	3.43	3.22	4.98	5.52	4.79	5.28	6.08	5.68	5.46
4	4.42	3.39	3.65	3.56	3.26	4.90	5.58	4.84	5.32	6.14	5.72	5.40
5	4.28	3.38	3.67	3.38	3.32	4.83	5.62	4.90	5.38	6.27	5.85	5.15
6	4.30	3.42	3.34	3.21	3.34	4.90	5.62	4.94	5.40	6.37	5.94	4.97
7	4.42	3.44	3.23	3.36	3.30	4.95	5.58	4.99	5.40	6.31	5.93	5.13
8	4.54	3.40	3.47	3.28	3.30	4.97	5.46	5.01	5.41	6.08	5.93	5.26
9	4.48	3.50	3.48	3.24	3.42	5.00	5.40	5.02	5.44	5.95	5.94	5.26
10	4.59	3.59	3.49	3.34	3.50	5.06	5.38	5.08	5.43	5.91	5.98	5.22
11	4.66	3.62	3.50	3.38	3.56	5.11	5.31	5.12	5.42	5.94	5.96	5.02
12	4.61	3.82	3.52	3.41	3.68	5.14	5.28	5.13	5.49	5.92	5.86	4.74
13	4.50	3.52	3.55	3.40	3.76	5.15	5.30	5.16	5.53	5.73	5.96	4.92
14	4.48	3.46	3.22	3.41	3.88	5.17	5.33	5.20	5.50	5.52	5.99	5.05
15	4.65	3.41	3.01	3.46	3.94	5.20	5.38	5.25	5.45	5.44	6.00	5.00
16	4.70	3.34	3.16	3.52	4.02	5.19	5.30	5.33	5.46	5.46	6.03	4.96
17	4.74	3.37	3.03	3.52	4.08	5.23	5.26	5.34	5.50	5.59	5.99	4.99
18	4.65	3.43	3.22	3.54	4.12	5.26	5.24	5.32	5.50	5.63	5.96	5.00
19	4.56	3.48	3.23	3.52	4.10	5.34	5.20	5.30	5.53	5.64	5.96	4.92
20	4.47	3.52	3.29	3.41	4.16	5.40	5.20	5.28	5.58	5.61	5.96	4.98
21	4.38	3.64	3.33	3.30	4.32	5.49	5.22	5.22	5.64	5.60	5.93	5.04
22	4.29	3.72	3.33	3.40	4.40	5.48	4.97	5.25	5.66	5.62	5.86	5.06
23	4.20	3.73	3.36	3.50	4.42	5.49	4.85	5.29	5.79	5.65	5.81	5.10
24	4.14	3.73	3.39	3.45	4.42	5.49	4.94	5.33	5.80	5.67	5.89	5.08
25	4.17	3.75	3.41	3.20	4.40	5.52	4.98	5.32	5.76	5.65	6.02	5.12
26	4.26	3.62	3.45	2.92	4.43	5.58	4.98	5.34	5.76	5.72	6.02	5.13
27	4.36	3.58	3.48	2.80	4.48	5.55	4.28	5.34	5.84	5.76	5.94	5.10
28	4.30	3.55	3.50	2.88	4.54	5.50	4.22	5.38	5.94	5.76	5.84	5.05
29	4.26	---	3.48	3.02	4.59	5.39	4.54	5.48	6.02	5.74	5.68	5.01
30	4.42	---	3.46	3.14	4.63	5.37	4.72	5.56	6.14	5.77	5.66	5.07
31	4.41	---	3.34	---	4.69	---	4.75	5.56	---	5.78	---	5.08
MEAN	4.49	3.54	3.40	3.33	3.92	5.21	5.17	5.18	5.58	5.82	5.89	5.10

CAL YR 1982 MEAN 4.73 HIGH 2.80 LOW 6.37

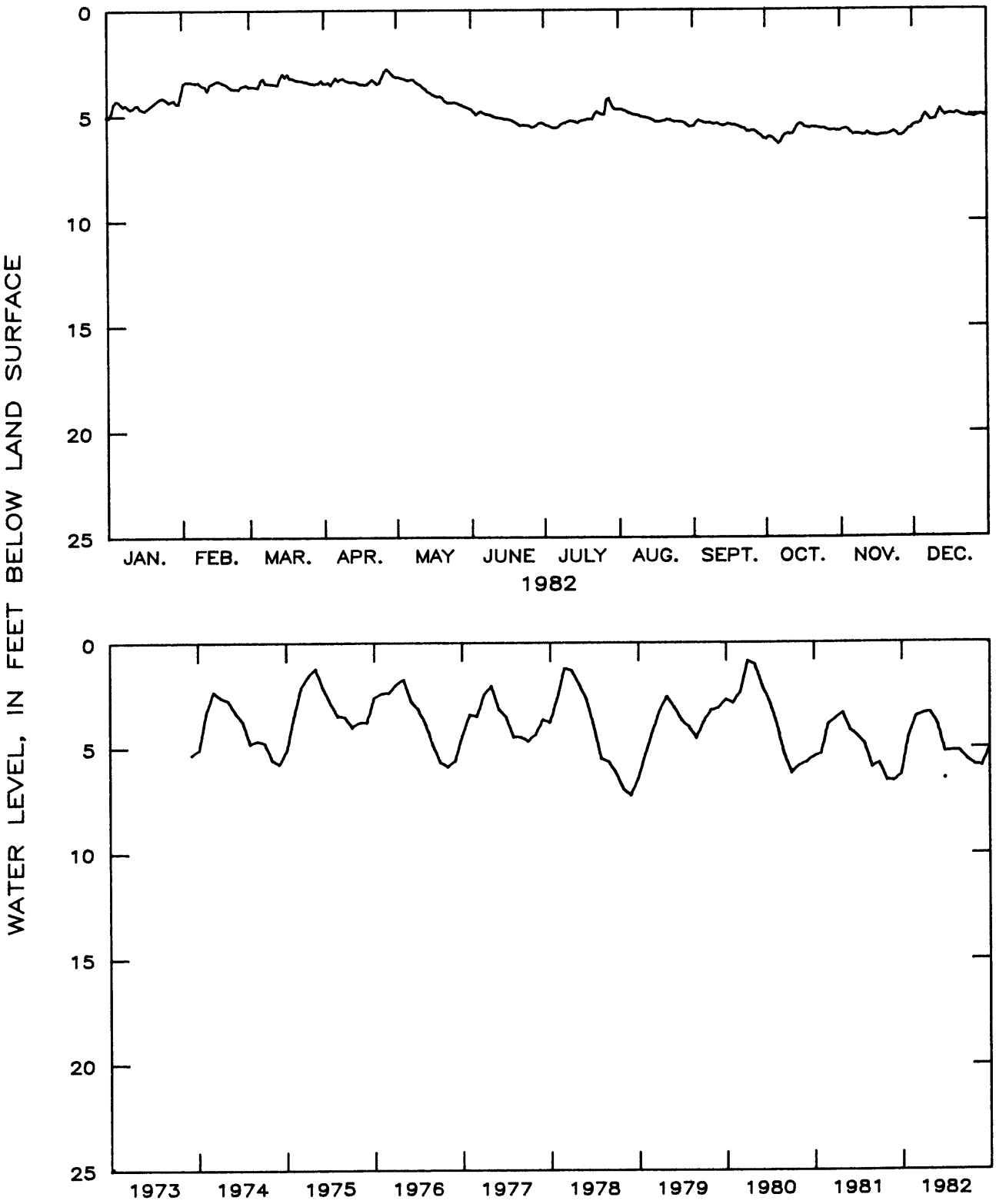

Figure 2.2–2.––Water level in observation well 10DD02, Fulton County.

13DD90 GAR 1 ROCKDALE COUNTY

333823084033501 Local number, 13DD90.
LOCATION.--Lat 33°38'23", long 84°03'35", Hydrologic Unit 03070103, 0.5 mi southwest of Whites Chapel off Smyrna Highway.
Owner: J. Florence, Greater Atlanta Region observation well 1.
AQUIFER.--Granite gneiss.
WELL CHARACTERISTICS.--Drilled unused observation test well, diameter 6 in., depth 50 ft, cased to 20 ft, open hole.
DATUM.--Altitude of land-surface datum is 860 ft.
Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, January 3-5, 9, 12, 17-25, February 3-5, 10-23, February 25 to March 28, March 30 to April 26, August 17 to September 28, October 28 to November 3, November 13-23, and December 13-31, were estimated.
PERIOD OF RECORD.--July 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.84 ft below land-surface datum, April 3-4, 1980; lowest, 24.75 ft below land-surface datum, December 20, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	24.04	21.09	17.60	16.23	14.90	15.30	16.33	17.20	17.16	18.36	19.01	18.73
2	23.88	21.00	17.46	16.22	14.98	15.34	16.38	17.22	17.19	18.42	19.02	18.52
3	23.70	20.68	17.38	16.22	14.90	15.36	16.37	17.25	17.20	18.47	19.04	18.34
4	23.46	20.54	17.33	16.21	14.84	15.32	16.42	17.28	17.27	18.50	19.09	18.16
5	23.25	20.29	17.30	16.21	14.84	15.30	16.47	17.34	17.35	18.58	19.16	17.99
6	22.98	20.07	17.22	16.23	14.83	15.40	16.53	17.36	17.38	18.61	19.16	17.81
7	22.81	19.96	17.22	16.26	14.78	15.38	16.56	17.43	17.42	18.64	19.16	17.65
8	22.62	19.82	17.30	16.28	14.80	15.37	16.58	17.44	17.42	18.66	19.16	17.52
9	22.36	18.99	17.18	16.31	14.84	15.40	16.62	17.48	17.46	18.70	19.17	17.39
10	22.21	18.98	17.01	16.33	14.89	15.42	16.67	17.54	17.50	18.74	19.17	17.31
11	22.05	18.91	16.91	16.36	14.92	15.46	16.66	17.36	17.52	18.80	19.17	17.08
12	22.02	18.80	16.86	16.39	14.96	15.53	16.69	17.09	17.58	18.80	19.17	16.90
13	21.96	18.74	16.85	16.40	15.03	15.54	16.70	16.95	17.62	18.75	19.22	16.77
14	21.87	18.70	16.82	16.40	15.00	15.63	16.72	16.85	17.65	18.68	19.22	16.56
15	21.83	18.60	16.75	16.41	15.04	15.64	16.78	16.78	17.69	18.59	19.24	16.30
16	21.77	18.47	16.71	16.41	15.08	15.68	16.80	16.74	17.72	18.58	19.26	16.16
17	21.74	18.33	16.61	16.42	15.10	15.72	16.78	16.74	17.80	18.64	19.25	16.04
18	21.64	18.31	16.57	16.42	15.10	15.82	16.74	16.75	17.84	18.65	19.27	15.92
19	21.56	18.21	16.45	16.43	15.10	15.92	16.74	16.77	17.92	18.66	19.27	15.79
20	21.52	18.05	16.38	16.39	15.10	15.96	16.76	16.78	17.97	18.62	19.27	15.75
21	21.47	17.93	16.34	16.35	15.06	16.01	16.80	16.80	18.04	18.66	19.27	15.73
22	21.46	17.99	16.34	16.31	15.12	16.11	16.84	16.81	18.06	18.72	19.25	15.70
23	21.35	17.95	16.27	16.27	15.10	16.14	16.87	16.83	18.10	18.77	19.25	15.66
24	21.35	17.88	16.23	16.23	15.09	16.17	16.92	16.84	18.12	18.81	19.28	15.63
25	21.30	17.88	16.21	16.19	15.08	16.18	16.96	16.86	18.14	18.82	19.39	15.65
26	21.31	17.88	16.24	15.83	15.12	16.20	16.98	16.89	18.16	18.87	19.35	15.62
27	21.28	17.72	16.27	15.14	15.20	16.21	17.00	16.96	18.20	18.90	19.32	15.60
28	21.24	17.69	16.27	15.08	15.22	16.21	17.06	17.04	18.26	18.91	19.30	15.58
29	21.17	---	16.24	15.00	15.27	16.21	17.13	17.12	18.30	18.93	19.15	15.56
30	21.12	---	16.24	14.96	15.30	16.25	17.18	17.16	18.36	18.97	18.96	15.57
31	21.06	---	16.23	---	15.30	---	17.20	17.16	---	19.00	---	15.55
MEAN	22.04	18.91	16.74	16.13	15.03	15.74	16.75	17.06	17.75	18.70	19.20	16.60

CAL YR 1982 MEAN 17.55 HIGH 14.78 LOW 24.04

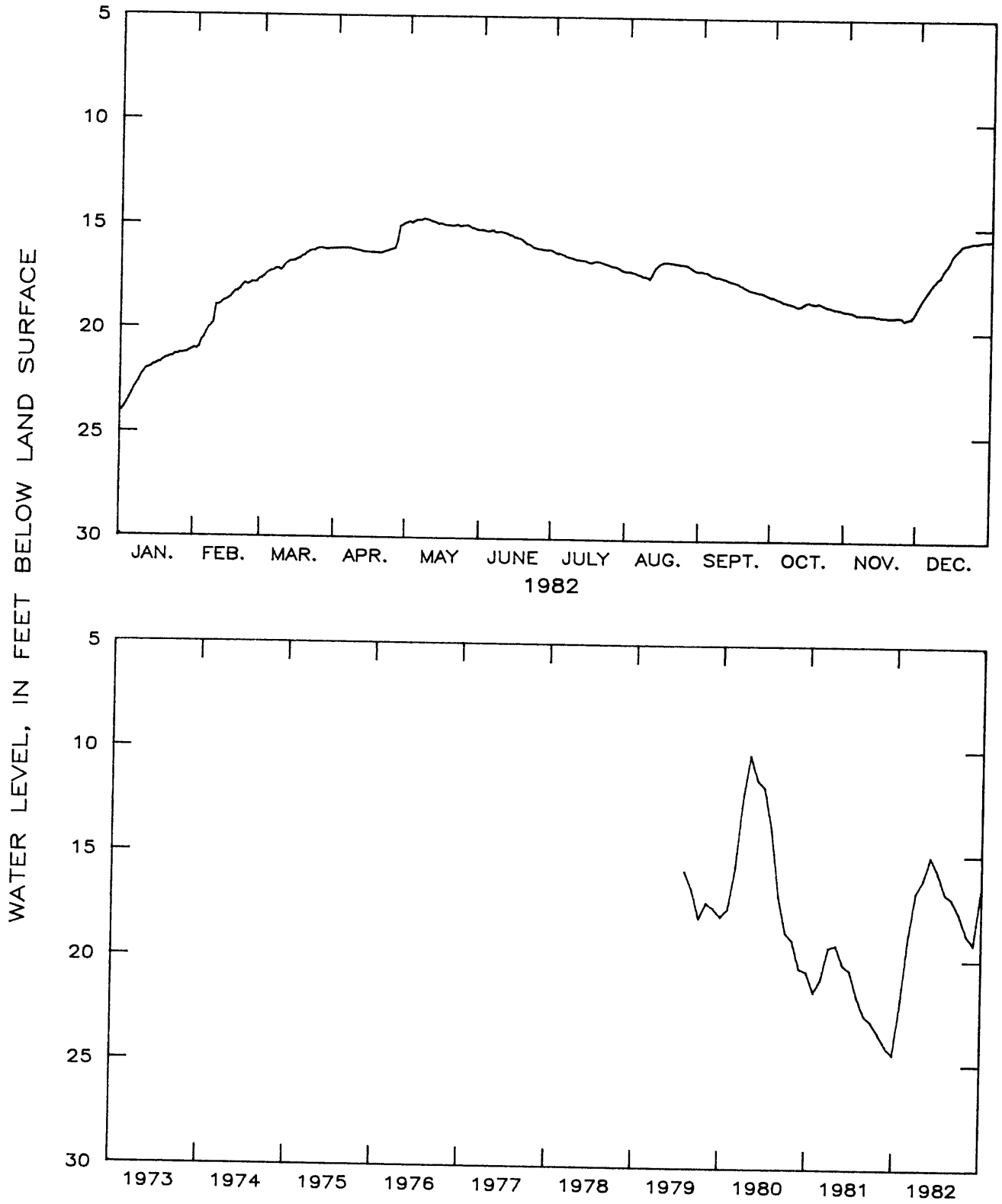

Figure 2.2–3.––Water level in observation well 13DD90, Rockdale County.

2.3 Water-Table Aquifers

Shallow water-table aquifers are used for domestic and stock supplies in most areas of Georgia. Water-level fluctuations in these aquifers are caused mainly by changes in precipitation; water levels generally rise rapidly during wet periods and decline slowly during dry periods. Prolonged droughts may cause water levels, particularly on hill tops and steep slopes, to decline below the intakes of dug, bored, or shallow drilled wells, resulting in well failures. Generally, the well yields are restored with the return of adequate precipitation.

Mean annual water levels for three wells in shallow water-table aquifers ranged from 2.4 to 3.2 feet higher in 1982 than in 1981. The 10-year hydrographs illustrate the effects of the 1981 drought.

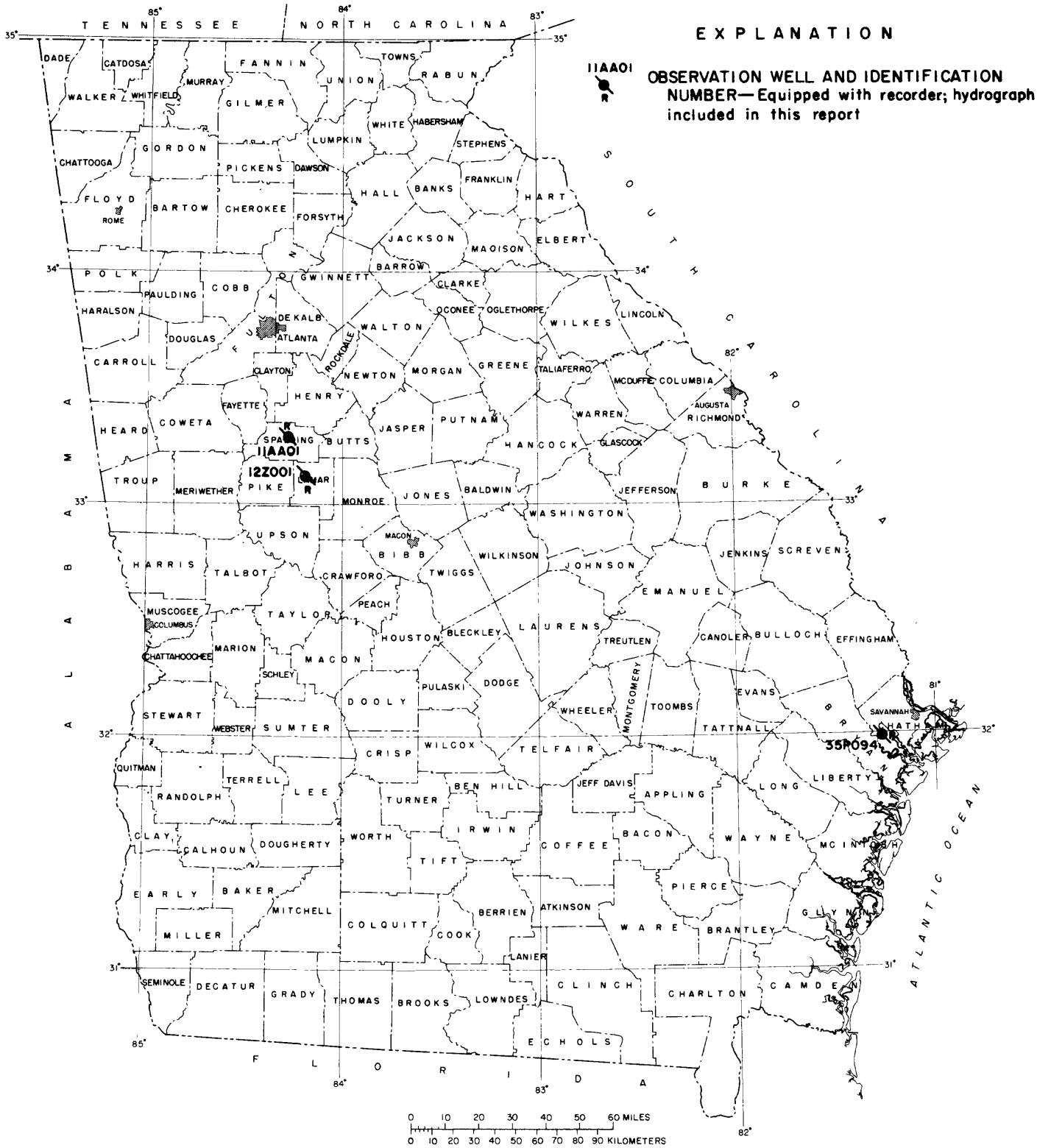

Figure 2.3–1.—Locations of observation wells in the water–table aquifers.

11AA01 EXPERIMENT STATION SPALDING COUNTY

331507084171801 Local number, 11AA01.
LOCATION.—Lat 33°15'54", long 84°16'56", Hydrologic Unit 03070103, University of Georgia Experiment Station, Experiment, Ga.
Owner: University of Georgia.
AQUIFER.—Residuum.
WELL CHARACTERISTICS.—Dug unused water-table well, size 4 x 4 ft, depth 30 ft, open hole.
DATUM.—Altitude of land-surface datum is 960 ft.
Measuring point: Hole in floor of recorder shelter, 3.1 ft above land-surface datum.
REMARKS.—Water levels for period of missing recorder record, March 29 to April 28, were estimated.
PERIOD OF RECORD.—October 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 8.26 ft below land-surface datum, March 19, 1948; lowest, 21.78 ft below land-surface datum, December 13, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	20.41	16.93	14.73	14.60	13.39	14.52	16.15	16.86	18.12	19.45	19.61	19.66
2	20.22	16.84	14.63	14.61	13.35	14.60	16.21	16.88	18.16	19.49	19.62	19.51
3	20.00	16.55	14.59	14.62	13.34	14.64	16.22	16.92	18.21	19.55	19.64	19.34
4	19.72	16.44	14.58	14.63	13.36	14.67	16.27	16.96	18.27	19.59	19.69	19.20
5	19.48	16.22	14.60	14.64	13.39	14.71	16.34	17.00	18.34	19.65	19.76	19.06
6	19.17	16.03	14.56	14.68	13.40	14.80	16.41	17.04	18.38	19.70	19.78	18.94
7	18.93	15.89	14.60	14.72	13.37	14.85	16.45	17.08	18.42	19.73	19.79	18.80
8	18.73	15.72	14.73	14.76	13.39	14.88	16.48	17.10	18.47	19.76	19.80	18.66
9	18.50	15.54	14.65	14.80	13.47	14.93	16.51	17.14	18.52	19.78	19.82	18.50
10	18.39	15.55	14.52	14.84	13.49	14.98	16.53	17.19	18.56	19.81	19.84	18.36
11	18.29	15.51	14.47	14.88	13.52	15.05	16.57	17.22	18.60	19.84	19.85	18.15
12	18.16	15.42	14.46	14.93	13.58	15.11	16.61	17.25	18.65	19.86	19.84	17.99
13	18.00	15.39	14.49	14.95	13.61	15.15	16.65	17.28	18.69	19.80	19.89	17.85
14	17.93	15.37	14.50	14.97	13.65	15.21	16.69	17.32	18.71	19.71	19.89	17.63
15	17.93	15.29	14.48	14.99	13.71	15.25	16.72	17.37	18.74	19.61	19.90	17.36
16	17.84	15.19	14.48	15.01	13.76	15.29	16.73	17.41	18.78	19.55	19.92	17.21
17	17.79	15.07	14.42	15.03	13.80	15.35	16.67	17.44	18.82	19.53	19.91	17.08
18	17.66	15.08	14.43	15.05	13.85	15.37	16.58	17.48	18.86	19.51	19.93	16.95
19	17.56	15.00	14.35	15.07	13.91	15.46	16.53	17.55	18.90	19.48	19.93	16.81
20	17.50	14.86	14.32	15.05	13.95	15.53	16.52	17.59	18.95	19.44	19.93	16.76
21	17.42	14.77	14.33	15.02	13.99	15.59	16.54	17.60	19.00	19.42	19.92	16.73
22	17.39	14.85	14.37	15.00	14.06	15.64	16.56	17.65	19.06	19.43	19.90	16.69
23	17.26	14.84	14.34	14.97	14.12	15.72	16.58	17.71	19.11	19.44	19.90	16.63
24	17.24	14.79	14.34	14.95	14.15	15.77	16.62	17.75	19.14	19.44	19.93	16.59
25	17.16	14.83	14.37	14.92	14.18	15.84	16.67	17.78	19.17	19.45	19.98	16.60
26	17.15	14.88	14.44	14.58	14.23	15.89	16.69	17.85	19.21	19.49	19.96	16.56
27	17.09	14.76	14.51	13.90	14.31	15.94	16.70	17.88	19.28	19.51	19.95	16.53
28	17.03	14.77	14.56	13.56	14.37	15.96	16.71	17.95	19.34	19.52	19.92	16.50
29	16.99	---	14.57	13.49	14.42	16.00	16.76	18.01	19.38	19.54	19.87	16.47
30	16.91	---	14.58	13.44	14.47	16.07	16.82	18.06	19.42	19.58	19.82	16.47
31	16.83	---	14.59	---	14.50	---	16.84	18.09	---	19.60	---	16.44
MEAN	18.09	15.44	14.50	14.69	13.81	15.29	16.56	17.43	18.78	19.59	19.85	17.61

CAL YR 1982 MEAN 16.81 HIGH 13.34 LOW 20.41

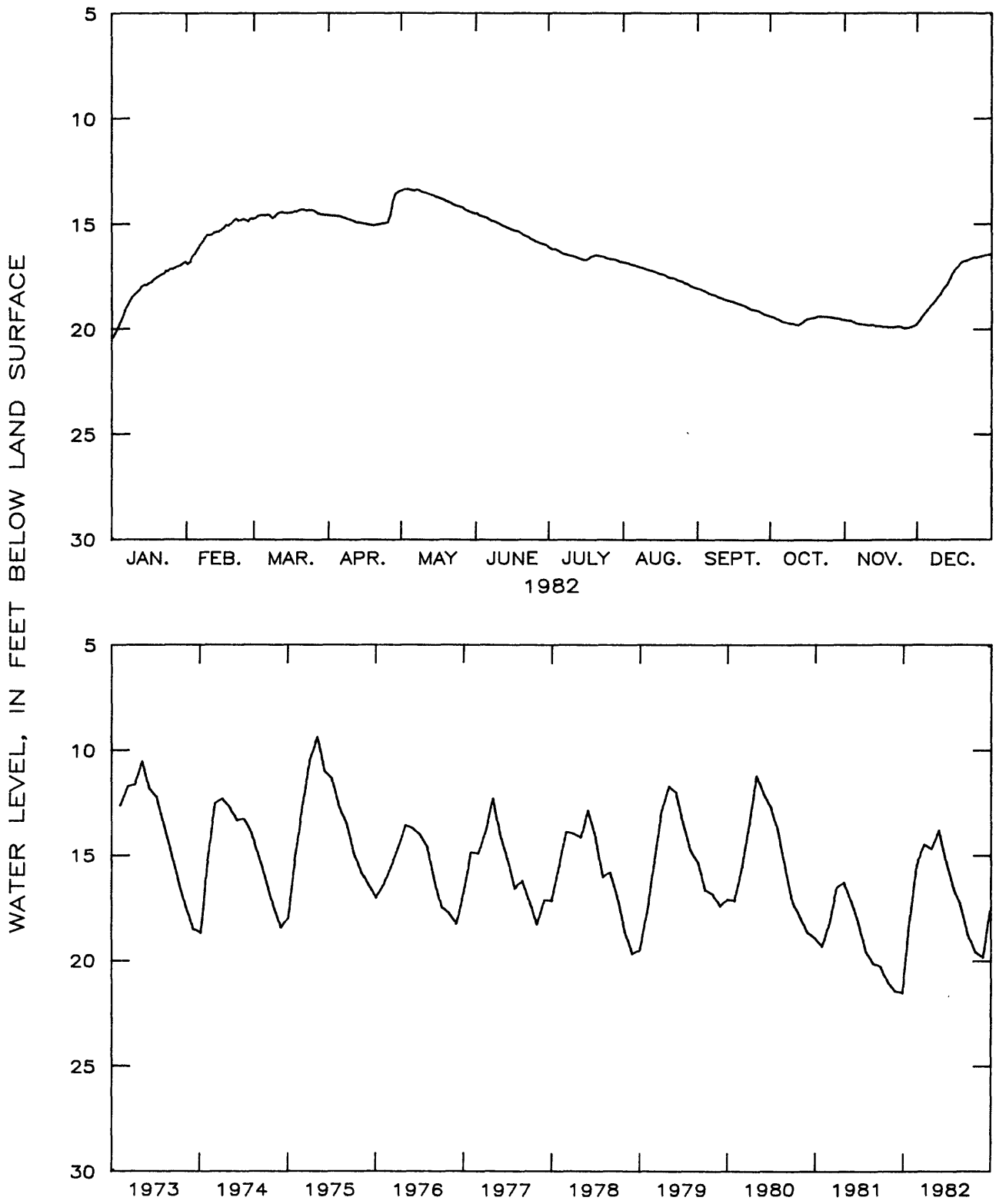

Figure 2.3–2.––Water level in observation well 11AA01, Spalding County.

12Z001 DIXIE PIPELINE LAMAR COUNTY

330858084122901 Local number, 12Z001.
LOCATION.--Lat 33°08'58", long 84°12'29", Hydrologic Unit 03130005, north of Milner, Ga., at the gas storage center.
Owner: Dixie Pipeline Co.
AQUIFER.--Residuum.
WELL CHARACTERISTICS.--Bored observation well, diameter 24 in., depth 31 ft, cased to 31 ft.
DATUM.--Altitude of land-surface datum is 852 ft.
Measuring point: Floor of recorder shelter, 2.0 ft above land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, January 10-17, November 29 to December 4, and December 18-31, were estimated.
PERIOD OF RECORD.--January 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.37 ft below land-surface datum, April 9, 1973; lowest, 15.20 ft below land-surface datum, December 1, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12.62	10.23	8.74	9.46	7.55	9.41	10.42	10.96	11.61	12.46	12.82	11.76
2	12.42	10.16	8.76	9.49	7.58	9.46	10.46	11.00	11.61	12.48	12.84	11.56
3	12.18	9.91	8.77	9.51	7.66	9.51	10.48	11.04	11.62	12.52	12.86	11.33
4	11.92	9.62	8.80	9.55	7.75	9.54	10.51	11.08	11.66	12.56	12.83	11.12
5	11.68	9.39	8.86	9.56	7.84	9.58	10.53	11.09	11.68	12.60	12.76	10.98
6	11.46	9.23	8.90	9.54	7.94	9.64	10.54	11.06	11.72	12.63	12.71	10.78
7	11.33	9.16	8.90	9.58	8.00	9.68	10.56	11.02	11.74	12.66	12.66	10.62
8	11.23	9.09	8.96	9.56	8.04	9.72	10.60	11.00	11.78	12.68	12.65	10.48
9	11.09	9.02	8.97	9.52	8.12	9.76	10.62	10.98	11.80	12.70	12.65	10.40
10	11.03	9.03	8.91	9.57	8.20	9.80	10.64	10.96	11.83	12.74	12.68	10.36
11	10.98	9.10	8.86	9.62	8.28	9.85	10.68	11.00	11.82	12.75	12.72	10.21
12	10.90	9.12	8.86	9.65	8.37	9.89	10.70	11.01	11.83	12.78	12.74	10.02
13	10.79	9.11	8.88	9.66	8.46	9.89	10.74	11.04	11.88	12.70	12.74	9.83
14	10.78	9.17	8.93	9.68	8.53	9.92	10.77	11.08	11.92	12.58	12.70	9.68
15	10.83	9.20	8.96	9.72	8.60	9.98	10.80	11.11	11.94	12.47	12.65	9.53
16	10.79	9.10	8.96	9.74	8.66	10.00	10.84	11.14	11.98	12.37	12.63	9.43
17	10.79	8.90	8.95	9.77	8.70	10.03	10.86	11.17	12.01	12.33	12.62	9.47
18	10.71	8.74	8.97	9.77	8.78	10.06	10.88	11.19	12.04	12.32	12.58	9.36
19	10.57	8.62	8.99	9.80	8.82	10.10	10.91	11.22	12.07	12.33	12.52	9.24
20	10.48	8.46	8.99	9.66	8.88	10.14	10.89	11.25	12.10	12.35	12.48	9.21
21	10.45	8.36	9.02	9.34	8.92	10.18	10.92	11.28	12.14	12.38	12.43	9.21
22	10.45	8.40	9.06	9.04	8.98	10.22	10.95	11.30	12.17	12.44	12.36	9.19
23	10.37	8.48	9.09	8.84	9.03	10.26	11.01	11.33	12.20	12.48	12.30	9.15
24	10.28	8.52	9.12	8.69	9.06	10.29	11.04	11.35	12.24	12.53	12.32	9.13
25	10.24	8.58	9.16	8.50	9.09	10.34	11.00	11.38	12.26	12.57	12.35	9.16
26	10.22	8.67	9.22	8.20	9.14	10.36	10.98	11.40	12.28	12.62	12.36	9.14
27	10.24	8.70	9.29	7.86	9.18	10.36	10.97	11.44	12.32	12.66	12.36	9.13
28	10.24	8.70	9.36	7.60	9.23	10.34	10.93	11.47	12.36	12.68	12.32	9.13
29	10.25	---	9.40	7.53	9.28	10.36	10.90	11.51	12.41	12.72	12.20	9.12
30	10.25	---	9.42	7.54	9.32	10.37	10.87	11.55	12.44	12.76	11.98	9.14
31	10.21	---	9.44	---	9.36	---	10.89	11.58	---	12.80	---	9.13
MEAN	10.90	9.03	9.02	9.19	8.56	9.97	10.77	11.19	11.98	12.57	12.56	9.87

CAL YR 1982 MEAN 10.47 HIGH 7.53 LOW 12.86

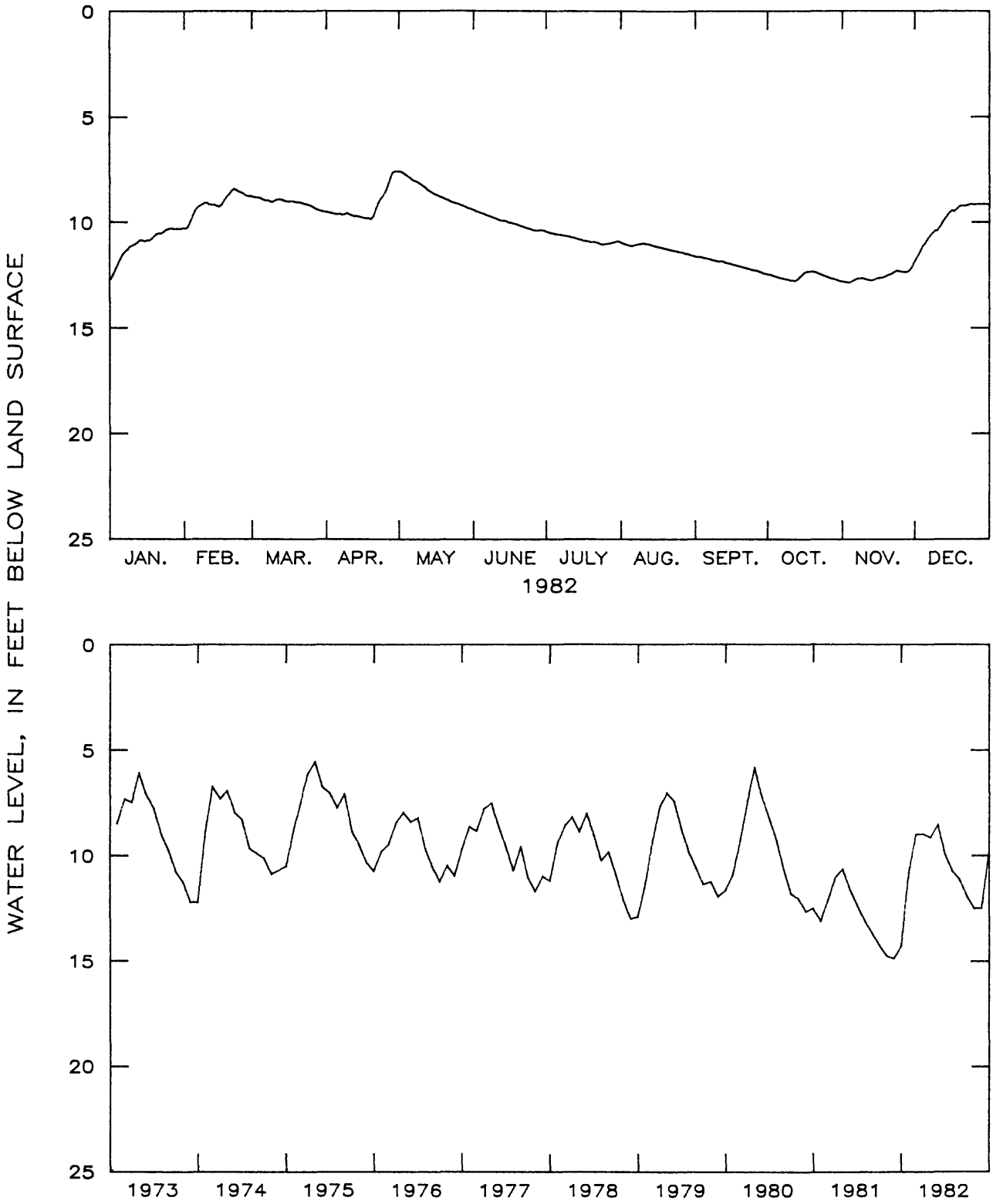

Figure 2.3–3.––Water level in observation well 12Z001, Lamar County.

35P094 USDA CHATHAM COUNTY

315950081161201 Local number, 35P094.
LOCATION.--Lat 31°59'50", long 81°16'12", Hydrologic Unit 03060204, Barbour Lathrop Plant Introduction Station, 10 miles south of Savannah, north of the intersection of U.S. Highway 17 and Argyle Rd.
Owner: U.S. Department of Agriculture.
AQUIFER.--Sands of Holocene and Pleistocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 30 in., depth 15 ft, cased to 15 ft, open end.
DATUM.--Altitude of land-surface datum is 18.67 ft.
Measuring point: Iron bracket on recorder shelter, 3.3 ft above land-surface datum.
REMARKS.--Responds quickly to precipitation. Water levels for periods of missing recorder record, March 28 to April 19 and July 3-15, were estimated.
PERIOD OF RECORD.--August 1942 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.05 ft below land-surface datum, Sept. 26, 1953; lowest, 12.28 ft below land-surface datum, November 30, 1972.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9.61	6.87	5.34	6.07	3.57	6.54	3.74	3.89	3.50	5.60	7.20	8.54
2	9.46	6.85	5.39	6.14	3.68	6.64	3.86	3.99	3.61	5.67	7.25	8.58
3	9.29	6.87	5.46	6.10	3.80	6.44	3.98	4.10	3.73	5.76	7.30	8.59
4	9.03	6.94	5.53	6.17	3.92	5.88	4.09	4.22	3.84	5.84	7.33	8.59
5	8.74	6.92	5.60	5.85	4.04	5.57	4.13	4.30	3.94	5.93	7.40	8.62
6	8.54	6.90	5.62	5.27	4.16	5.49	3.82	4.34	4.04	5.98	7.45	8.67
7	8.35	6.92	5.57	5.09	4.26	5.51	3.49	4.43	4.11	6.04	7.50	8.73
8	8.15	6.83	5.49	4.91	4.37	5.64	3.58	4.52	4.24	6.12	7.58	8.75
9	8.08	6.80	5.30	4.94	4.48	5.77	3.60	4.42	4.33	6.20	7.61	8.75
10	8.04	6.92	5.21	4.98	4.60	5.94	3.57	4.02	4.25	6.25	7.69	8.74
11	7.97	6.97	5.18	4.92	4.70	6.10	3.40	3.90	4.18	6.13	7.74	8.70
12	7.87	6.79	5.22	5.01	4.81	6.24	3.49	4.00	4.21	6.04	7.76	8.67
13	7.60	6.32	5.28	5.10	4.91	6.24	3.44	3.26	4.26	5.98	7.83	8.65
14	7.10	5.88	5.34	5.19	5.03	6.40	3.56	2.40	4.35	6.02	7.88	8.64
15	6.65	5.59	5.40	5.28	5.14	6.55	3.68	2.44	4.44	6.10	7.93	8.64
16	6.50	5.34	5.46	5.38	5.26	6.67	3.80	2.56	4.53	6.21	7.98	8.59
17	6.43	5.06	5.52	5.02	5.38	6.76	3.41	2.68	4.60	6.33	8.02	8.60
18	6.40	4.84	5.58	4.66	5.47	6.46	2.94	2.46	4.66	6.40	8.07	8.64
19	6.42	4.72	5.55	4.60	5.57	6.00	2.22	2.14	4.68	6.46	8.12	8.58
20	6.44	4.69	5.58	4.68	5.67	5.69	2.14	2.33	4.72	6.55	8.16	8.57
21	6.46	4.79	5.64	4.69	5.70	5.58	2.43	2.59	4.74	6.62	8.20	8.62
22	6.50	4.88	5.70	4.74	5.77	5.55	2.66	2.79	4.80	6.70	8.22	8.68
23	6.46	4.95	5.74	4.83	5.82	5.04	2.81	2.70	4.90	6.75	8.26	8.70
24	6.53	4.99	5.77	4.90	5.96	4.33	2.94	2.40	5.00	6.78	8.32	8.70
25	6.54	5.10	5.72	4.74	6.07	4.17	3.05	2.58	5.10	6.83	8.39	8.73
26	6.60	5.20	5.72	4.06	6.20	4.23	3.20	2.82	5.20	6.89	8.41	8.74
27	6.68	5.20	5.76	3.44	6.34	4.30	3.32	2.99	5.30	6.95	8.42	8.75
28	6.67	5.29	5.82	3.27	6.46	4.02	3.45	3.10	5.40	6.99	8.40	8.73
29	6.71	---	5.88	3.35	6.52	3.58	3.57	3.13	5.45	7.05	8.45	8.74
30	6.70	---	5.94	3.46	6.54	3.59	3.67	3.27	5.53	7.15	8.50	8.74
31	6.75	---	6.00	---	6.50	---	3.78	3.40	---	7.18	---	8.60
MEAN	7.40	5.91	5.56	4.89	5.18	5.56	3.38	3.30	4.52	6.37	7.91	8.66

CAL YR 1982 MEAN 5.72 HIGH 2.14 LOW 9.61

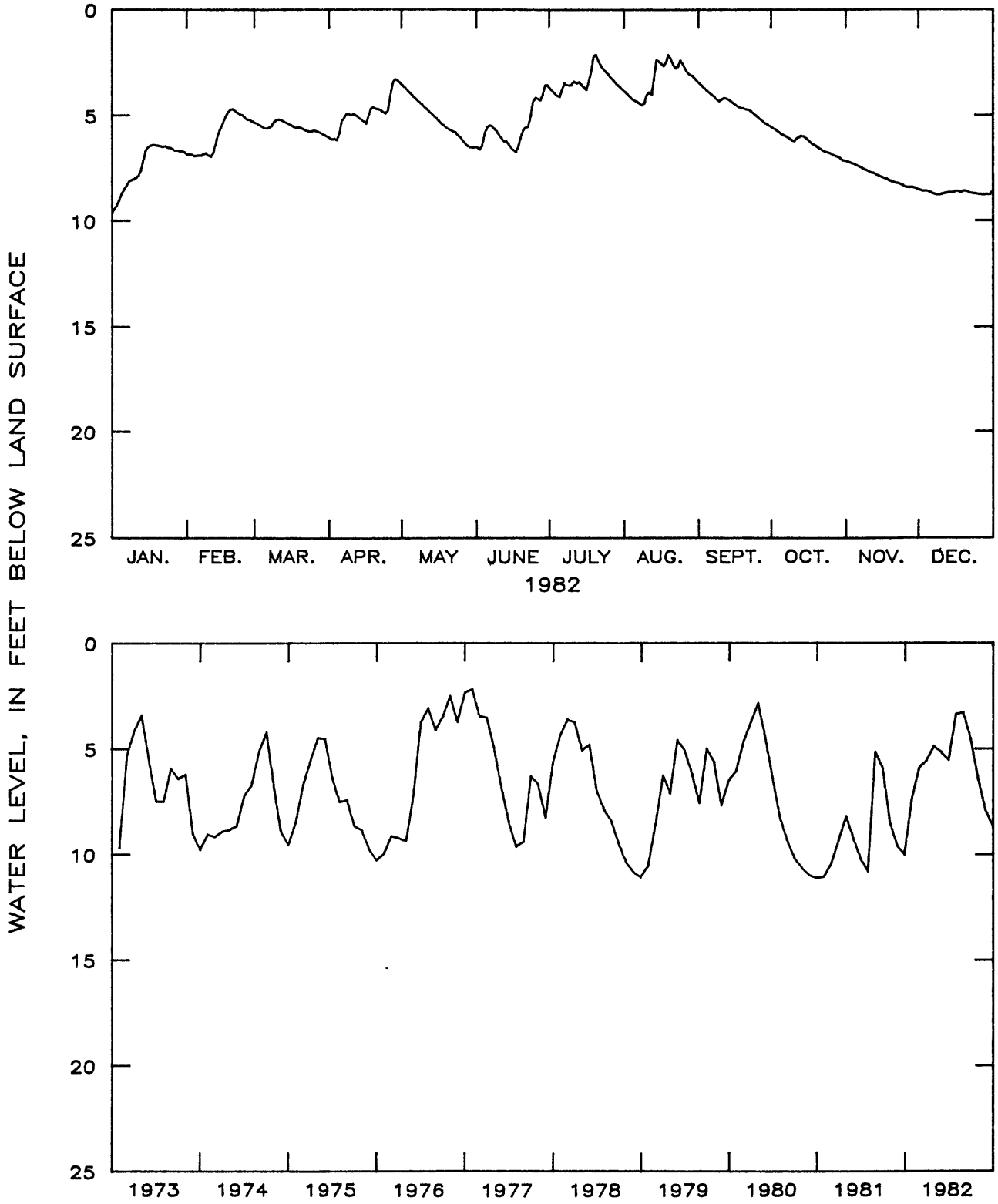

Figure 2.3—4.——Water level in observation well 35P094, Chatham County.

2.4 Cretaceous Aquifer System

The Cretaceous aquifer system in the Georgia Coastal Plain supplies more than 128 Mgal/d primarily for municipal and industrial use. The major source of recharge to the aquifer system is rainfall in areas where the individual aquifers intersect the land surface or underlie permeable surface material. Rainfall infiltrates the surface material and moves downgradient toward the southeast through the aquifer system. Most of the natural discharge from the aquifer system is into streams and rivers that cross the outcrop area. In general, water levels in the Cretaceous aquifer system declined during the period 1973-82. In east-central Georgia, the declines were greatest in Twiggs County, northwest Wilkinson County, and central Washington County, which are areas of heavy pumpage associated with kaolin mining and processing. The long-term water-level declines in these areas during the period 1946-80 varied from 10 to 50 feet (John S. Clarke, U.S. Geological Survey, written commun., 1983).

In southwest Georgia, water levels in the Providence aquifer declined about 15 feet during the period 1979-82. Most of this decline was attributed to pumpage in the Albany area. According to Clarke and others (1983), water levels in the Providence aquifer declined more than 100 feet during the period 1950-80.

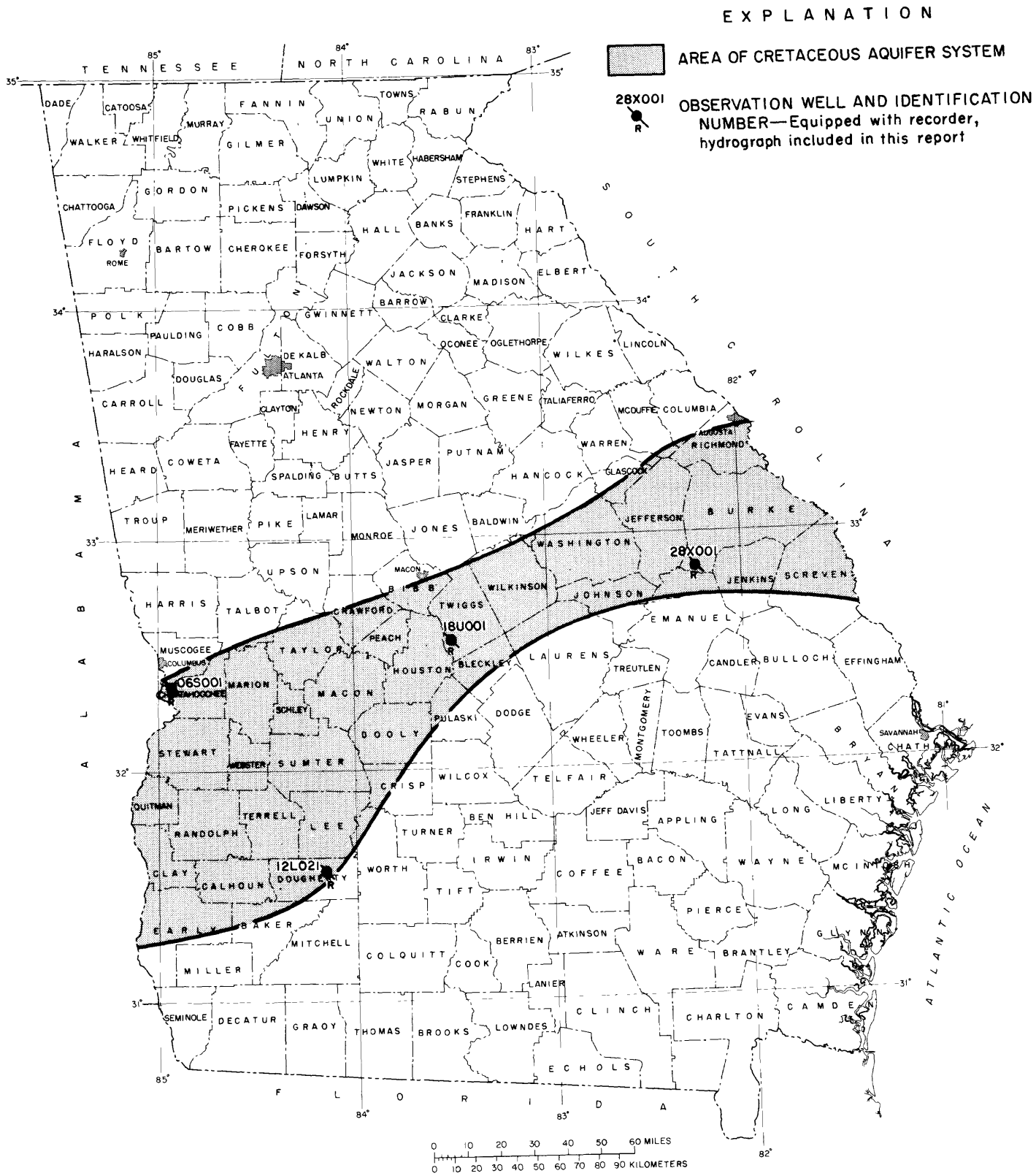

Figure 2.4–1.——Locations of observation wells in the Cretaceous aquifer system.

28X001 MIDVILLE EXPERIMENT STATION BURKE COUNTY

325232082131501 Local number, 28X001.
LOCATION.--Lat 32°52'32", long 82°13'15", Hydrologic Unit 03060201, 4.2 mi north of Midville off of State Highway 56 at Southeastern Experiment Station.
Owner: U.S. Geological Survey.
AQUIFER.--Cretaceous.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 15 in., depth 1,045 ft, cased to 1,025 ft, screened.
DATUM.--Altitude of land-surface datum is 269 ft.
Measuring point: Floor of recorder platform, 3.04 ft above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.07 ft below land-surface datum, June 4, 1980; lowest, 53.33 ft below land-surface datum, December 8, 1982.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	52.62	52.62	52.57	52.52	52.46	52.37	52.54	52.67	52.92	53.07	53.21	53.23
2	52.68	52.68	52.53	52.48	52.44	52.38	52.61	52.65	52.89	53.13	53.22	53.25
3	52.57	52.55	52.51	52.43	52.42	52.38	52.62	52.65	52.88	53.07	53.22	53.25
4	52.52	52.54	52.50	52.49	52.42	52.32	52.58	52.67	52.89	53.15	53.24	53.21
5	52.59	52.62	52.48	52.40	52.44	52.27	52.58	52.70	52.94	53.23	53.26	53.15
6	52.56	52.60	52.41	52.40	52.46	52.32	52.60	52.73	52.96	53.20	53.26	53.17
7	52.52	52.61	52.54	52.50	52.42	52.38	52.59	52.73	52.97	53.17	53.29	53.27
8	52.54	52.64	52.66	52.41	52.39	52.39	52.61	52.74	52.97	53.21	53.28	53.33
9	52.48	52.60	52.68	52.40	52.43	52.39	52.54	52.74	52.98	53.25	53.28	53.28
10	52.58	52.48	52.61	52.47	52.46	52.39	52.49	52.74	52.96	53.27	53.26	53.26
11	52.62	52.52	52.55	52.46	52.46	52.42	52.49	52.76	52.93	53.27	53.23	53.13
12	52.56	52.56	52.52	52.48	52.48	52.45	52.49	52.72	52.94	53.23	53.16	52.99
13	52.43	52.54	52.52	52.45	52.50	52.44	52.50	52.71	52.96	53.17	53.19	53.17
14	52.44	52.50	52.53	52.43	52.49	52.44	52.51	52.72	52.96	53.17	53.22	53.20
15	52.53	52.58	52.50	52.46	52.49	52.44	52.54	52.74	52.94	53.25	53.24	53.13
16	52.58	52.58	52.52	52.50	52.50	52.45	52.56	52.77	52.92	53.25	53.26	53.05
17	52.63	52.51	52.48	52.48	52.51	52.45	52.57	52.76	52.94	53.20	53.23	53.07
18	52.64	52.42	52.50	52.49	52.50	52.42	52.55	52.71	52.95	53.21	53.20	53.10
19	52.62	52.44	52.46	52.48	52.52	52.42	52.52	52.74	52.94	53.23	53.21	53.03
20	52.60	52.54	52.43	52.46	52.48	52.46	52.52	52.77	52.93	53.24	53.23	53.03
21	52.64	52.53	52.40	52.48	52.48	52.48	52.52	52.71	52.94	53.22	53.21	53.07
22	52.64	52.46	52.49	52.54	52.50	52.50	52.54	52.74	52.95	53.24	53.17	53.13
23	52.56	52.42	52.46	52.60	52.51	52.50	52.54	52.76	53.00	53.24	53.14	53.13
24	52.57	52.52	52.45	52.56	52.48	52.52	52.54	52.78	53.02	53.26	53.17	53.12
25	52.58	52.66	52.44	52.46	52.44	52.54	52.57	52.78	53.07	53.25	53.31	53.15
26	52.65	52.60	52.48	52.37	52.40	52.55	52.60	52.79	53.13	53.25	53.31	53.15
27	52.72	52.59	52.59	52.36	52.35	52.55	52.61	52.80	53.10	53.24	53.25	53.13
28	52.70	52.62	52.66	52.36	52.36	52.54	52.61	52.82	53.12	53.24	53.18	53.08
29	52.71	---	52.62	52.42	52.39	52.50	52.63	52.88	53.10	53.26	53.15	53.00
30	52.66	---	52.58	52.46	52.40	52.50	52.67	52.92	53.16	53.26	53.20	53.04
31	52.56	---	52.56	---	52.39	---	52.68	52.94	---	53.25	---	53.05
MEAN	52.59	52.55	52.52	52.46	52.45	52.44	52.57	52.75	52.98	53.22	53.23	53.14

CAL YR 1982 MEAN 52.74 HIGH 52.27 LOW 53.33

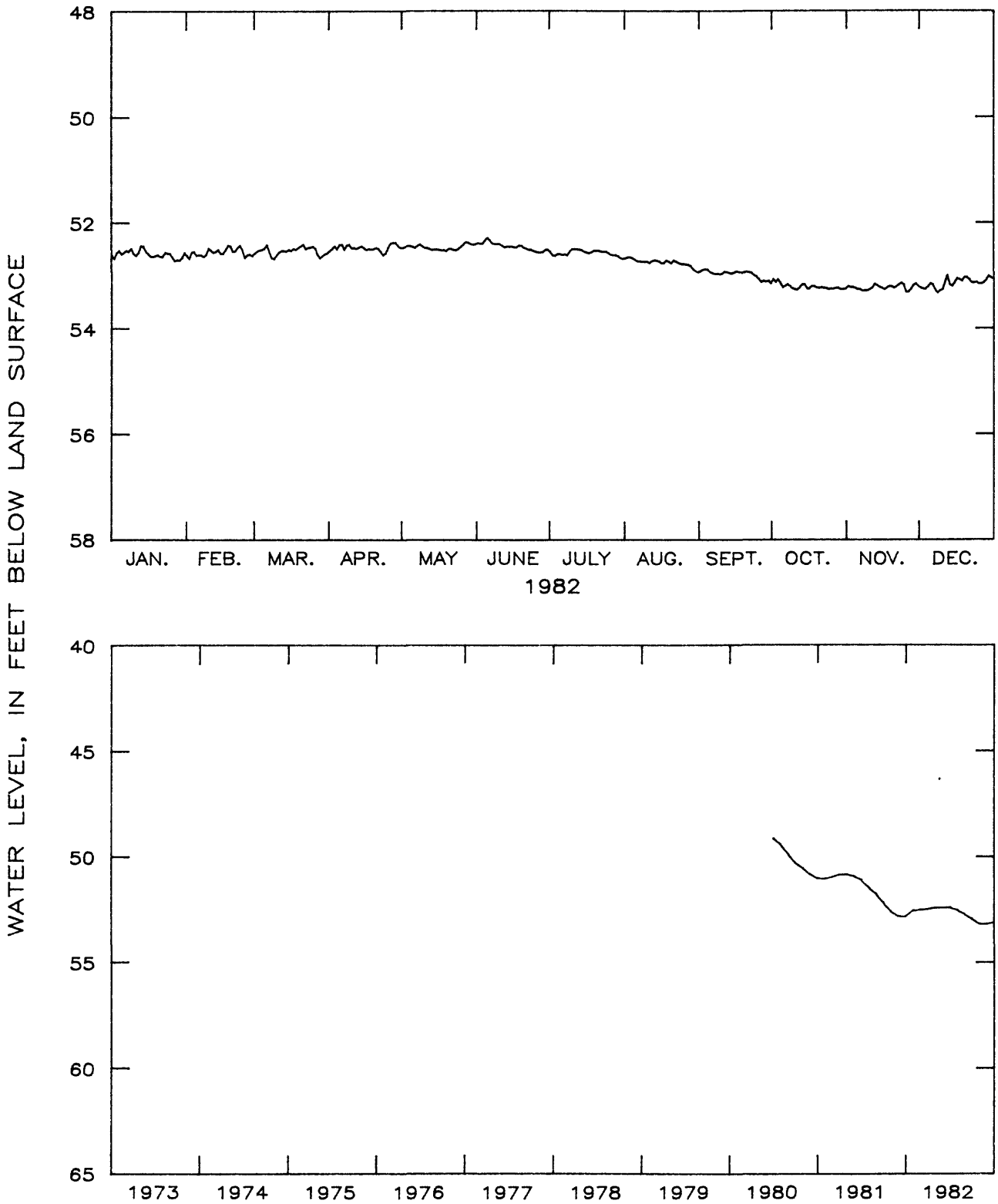

Figure 2.4—2.——Water level in observation well 28X001, Burke County.

18U001 TEST WELL 3 TWIGGS COUNTY

323302083263401 Local number, 18U001.
LOCATION.--Lat 32°33'02", long 83°26'34", Hydrologic Unit 03070104, 0.6 miles north of intersection of U.S. Highways 23 and 129 and Georgia Highway 96, turn left at Woods Road West. Well is 100 ft west of highway.
Owner: Georgia Kraft, USGS TW 3.
AQUIFER.--Upper Cretaceous Series.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 590 ft, 3 in.; depth 586-616 ft, cased to 616 ft.
DATUM.--Altitude of land-surface datum is 420 ft.
Measuring point: Top of recorder shelter, 2.6 ft above land-surface datum.
REMARKS.--Borehole geophysical survey conducted.
PERIOD OF RECORD.--July 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 162.00 ft below land-surface datum, April 4, 1977; lowest, 165.64 ft below land-surface datum, October 5, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	164.53	164.25	163.98	164.04	163.78	163.92	164.32	164.09	164.24	164.47	164.36	164.07
2	164.56	164.28	163.96	164.02	163.76	163.96	164.36	164.04	164.22	164.46	164.32	164.07
3	164.48	164.14	163.91	163.98	163.76	163.99	164.35	164.04	164.22	164.48	164.27	164.04
4	164.38	164.16	163.89	164.04	163.78	163.98	164.32	164.06	164.26	164.50	164.23	163.98
5	164.39	164.18	163.89	163.92	163.82	163.96	164.32	164.08	164.32	164.52	164.29	163.90
6	164.33	164.12	163.85	163.87	163.86	164.01	164.38	164.05	164.36	164.55	164.32	163.88
7	164.28	164.02	163.80	163.98	163.82	164.05	164.40	164.05	164.38	164.54	164.32	163.92
8	164.29	163.91	163.98	163.90	163.82	164.06	164.34	164.04	164.40	164.52	164.31	163.97
9	164.20	163.78	164.04	163.88	163.86	164.06	164.29	164.04	164.43	164.48	164.30	163.89
10	164.23	163.79	163.98	163.95	163.90	164.07	164.27	164.06	164.43	164.47	164.32	163.86
11	164.28	163.89	163.92	163.94	163.93	164.10	164.22	164.07	164.42	164.48	164.28	163.67
12	164.27	163.89	163.88	163.96	163.96	164.15	164.21	164.04	164.43	164.47	164.21	163.56
13	164.17	163.90	163.88	164.01	163.98	164.13	164.22	164.02	164.46	164.42	164.22	163.69
14	164.08	163.96	163.89	164.01	164.00	164.12	164.21	164.02	164.42	164.38	164.22	163.73
15	164.19	163.96	163.88	164.03	164.02	164.15	164.22	164.03	164.36	164.36	164.24	163.65
16	164.23	163.85	163.88	164.07	164.05	164.16	164.22	164.05	164.35	164.36	164.24	163.54
17	164.28	163.74	163.90	164.07	164.08	164.16	164.22	164.02	164.35	164.43	164.20	163.53
18	164.29	163.83	163.92	164.08	164.10	164.14	164.18	164.02	164.33	164.45	164.16	163.53
19	164.28	163.90	163.91	164.10	164.08	164.16	164.15	164.03	164.32	164.43	164.14	163.47
20	164.30	163.86	163.86	164.05	164.10	164.20	164.14	164.06	164.32	164.40	164.14	163.48
21	164.30	163.76	163.87	164.07	164.08	164.24	164.13	164.03	164.32	164.36	164.12	163.52
22	164.32	163.82	163.88	164.12	164.08	164.27	164.14	164.02	164.36	164.36	164.08	163.58
23	164.28	163.89	163.88	164.16	164.07	164.27	164.12	164.04	164.40	164.37	164.04	163.60
24	164.24	163.87	163.86	164.10	164.02	164.30	164.12	164.06	164.39	164.36	164.08	163.62
25	164.24	163.92	163.87	163.93	163.98	164.32	164.14	164.06	164.36	164.36	164.18	163.67
26	164.26	164.00	163.90	163.82	163.94	164.35	164.16	164.07	164.32	164.40	164.18	163.68
27	164.34	163.96	163.98	163.80	163.94	164.36	164.15	164.09	164.36	164.42	164.12	163.67
28	164.35	163.94	164.06	163.82	163.94	164.34	164.14	164.12	164.42	164.42	164.04	163.68
29	164.30	---	164.09	163.84	163.95	164.31	164.14	164.20	164.46	164.40	164.01	163.54
30	164.30	---	164.07	163.83	163.94	164.30	164.17	164.26	164.48	164.41	164.06	163.52
31	164.21	---	164.05	---	163.93	---	164.15	164.27	---	164.39	---	163.53
MEAN	164.30	163.95	163.93	163.98	163.95	164.15	164.22	164.07	164.36	164.43	164.20	163.71

CAL YR 1982 MEAN 164.10 HIGH 163.47 LOW 164.56

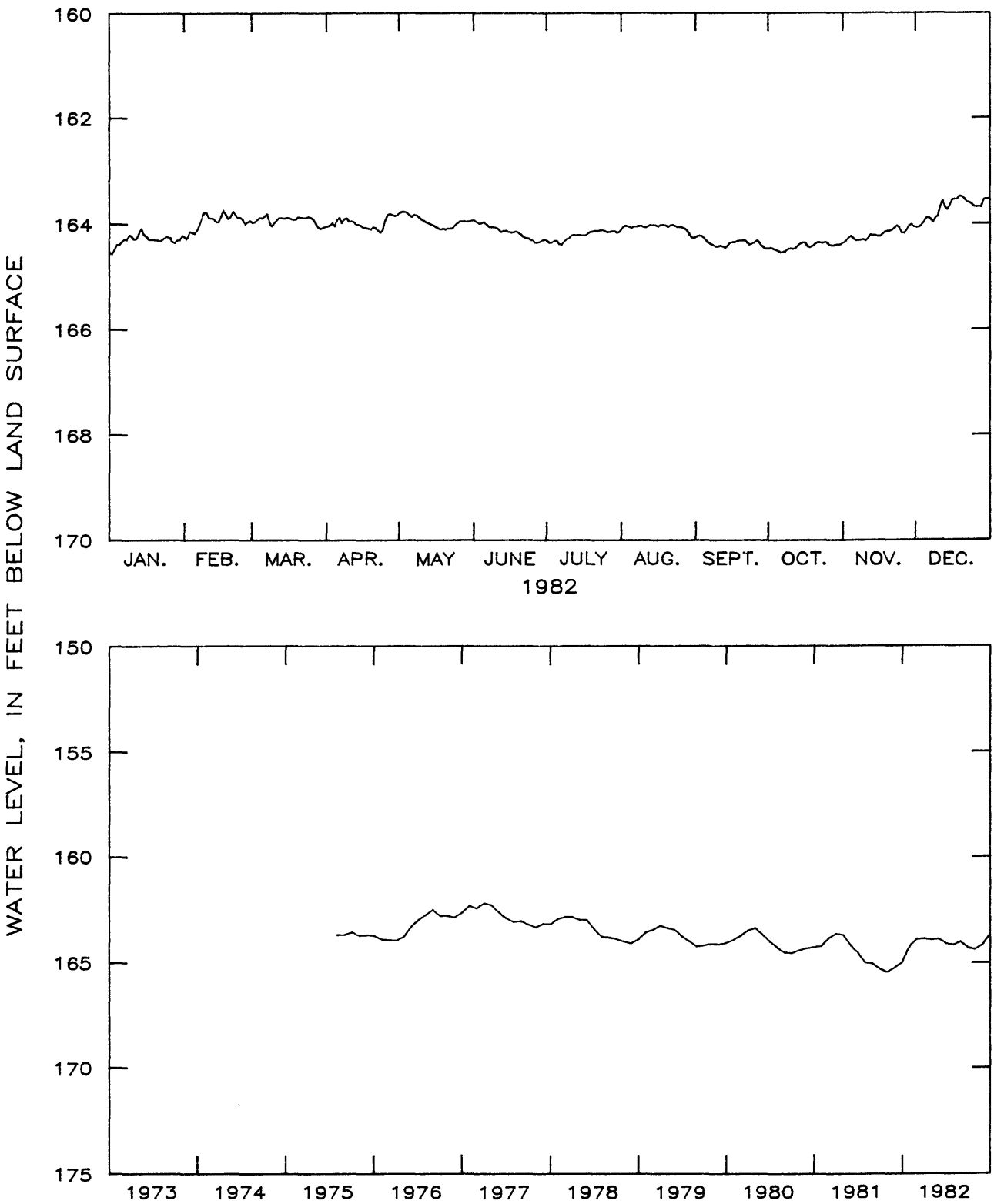

Figure 2.4–3.––Water level in observation well 18U001, Twiggs County.

06S001 FORT BENNING CHATTAHOOCHEE COUNTY

322036084590301 Local number, 06S001
LOCATION.--Lat 32°20'31", long 84°59'11", Hydrologic Unit 03130003, in "Motor Pool" across road from Lawson Airfield main building.
Owner: U.S. Army.
AQUIFER.--Blufftown and Eutaw Formations, and Tuscaloosa Formation.
WELL CHARACTERISTICS.--Drilled unused supply well, diameter 12 in., depth 568 ft, screened interval 215-220 ft, 230-235 ft, 280-290 ft, 540-550 ft.
DATUM.--Altitude of land-surface datum is 255 ft.
Measuring point: Floor of recorder shelter, 2.80 ft above land-surface datum.
REMARKS.--Well pumped June 1978; water-quality sample collected at conclusion of pumping. Water levels for periods of missing recorder record, April 29 to May 5 and June 21 to July 29, were estimated.
PERIOD OF RECORD.--May 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.37 ft below land-surface datum, April 10, 1964; lowest, 29.73 ft below land-surface datum, September 10, 1958.

Water level, in feet below land surface, monthly mean values through 1975 and 1982 - periodic measurements, 1975-79

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14.33	14.30	14.29	14.45	14.23	14.46	14.94	14.88	15.15	15.48	15.81	15.78
2	14.34	14.30	14.29	14.44	14.23	14.48	14.99	14.85	15.15	15.48	15.80	15.82
3	14.32	14.24	14.28	14.41	14.25	14.51	14.98	14.85	15.14	15.48	15.78	15.84
4	14.28	14.15	14.27	14.40	14.29	14.53	14.96	14.85	15.14	15.48	15.78	15.82
5	14.33	14.06	14.26	14.35	14.34	14.55	14.97	14.85	15.16	15.49	15.80	15.72
6	14.32	13.99	14.25	14.31	14.40	14.57	15.03	14.86	15.18	15.51	15.83	15.69
7	14.28	14.01	14.22	14.34	14.36	14.60	15.06	14.87	15.20	15.52	15.85	15.66
8	14.30	14.02	14.28	14.29	14.34	14.62	15.01	14.87	15.20	15.52	15.85	15.66
9	14.28	14.01	14.32	14.26	14.35	14.63	14.96	14.87	15.21	15.52	15.86	15.66
10	14.30	14.02	14.30	14.30	14.36	14.64	14.95	14.88	15.22	15.52	15.87	15.67
11	14.34	14.05	14.28	14.34	14.37	14.67	14.91	14.89	15.23	15.53	15.87	15.62
12	14.32	14.07	14.28	14.36	14.38	14.69	14.90	14.89	15.24	15.55	15.85	15.56
13	14.24	14.09	14.28	14.37	14.39	14.70	14.92	14.88	15.31	15.55	15.85	15.56
14	14.18	14.11	14.28	14.37	14.40	14.70	14.92	14.88	15.31	15.58	15.85	15.56
15	14.23	14.12	14.28	14.37	14.42	14.70	14.93	14.88	15.30	15.58	15.86	15.54
16	14.25	14.10	14.29	14.38	14.44	14.71	14.94	14.89	15.29	15.59	15.88	15.53
17	14.27	14.07	14.30	14.39	14.46	14.73	14.95	14.90	15.30	15.62	15.87	15.56
18	14.28	14.08	14.30	14.40	14.47	14.73	14.91	14.90	15.30	15.66	15.86	15.58
19	14.28	14.11	14.31	14.41	14.46	14.74	14.89	14.90	15.30	15.69	15.84	15.58
20	14.28	14.13	14.31	14.39	14.43	14.75	14.89	14.92	15.30	15.69	15.84	15.60
21	14.28	14.12	14.31	14.38	14.42	14.80	14.88	14.93	15.32	15.68	15.84	15.61
22	14.29	14.18	14.32	14.39	14.42	14.83	14.90	14.93	15.36	15.68	15.83	15.64
23	14.28	14.19	14.33	14.40	14.43	14.84	14.88	14.94	15.39	15.68	15.83	15.65
24	14.28	14.22	14.32	14.38	14.44	14.88	14.89	14.95	15.40	15.69	15.84	15.66
25	14.29	14.26	14.31	14.32	14.44	14.90	14.92	14.97	15.40	15.71	15.88	15.69
26	14.30	14.29	14.34	14.25	14.44	14.94	14.94	14.98	15.40	15.74	15.90	15.71
27	14.34	14.28	14.38	14.23	14.44	14.96	14.94	15.01	15.40	15.76	15.90	15.72
28	14.34	14.27	14.42	14.22	14.44	14.94	14.94	15.04	15.42	15.77	15.84	15.70
29	14.35	---	14.45	14.26	14.45	14.92	14.94	15.07	15.45	15.77	15.77	15.68
30	14.34	---	14.45	14.27	14.45	14.92	14.98	15.12	15.46	15.79	15.77	15.66
31	14.29	---	14.45	---	14.46	---	14.94	15.14	---	15.81	---	15.66
MEAN	14.29	14.14	14.31	14.35	14.39	14.72	14.94	14.92	15.29	15.62	15.84	15.66

CAL YR 1982 MEAN 14.88 HIGH 13.99 LOW 15.90

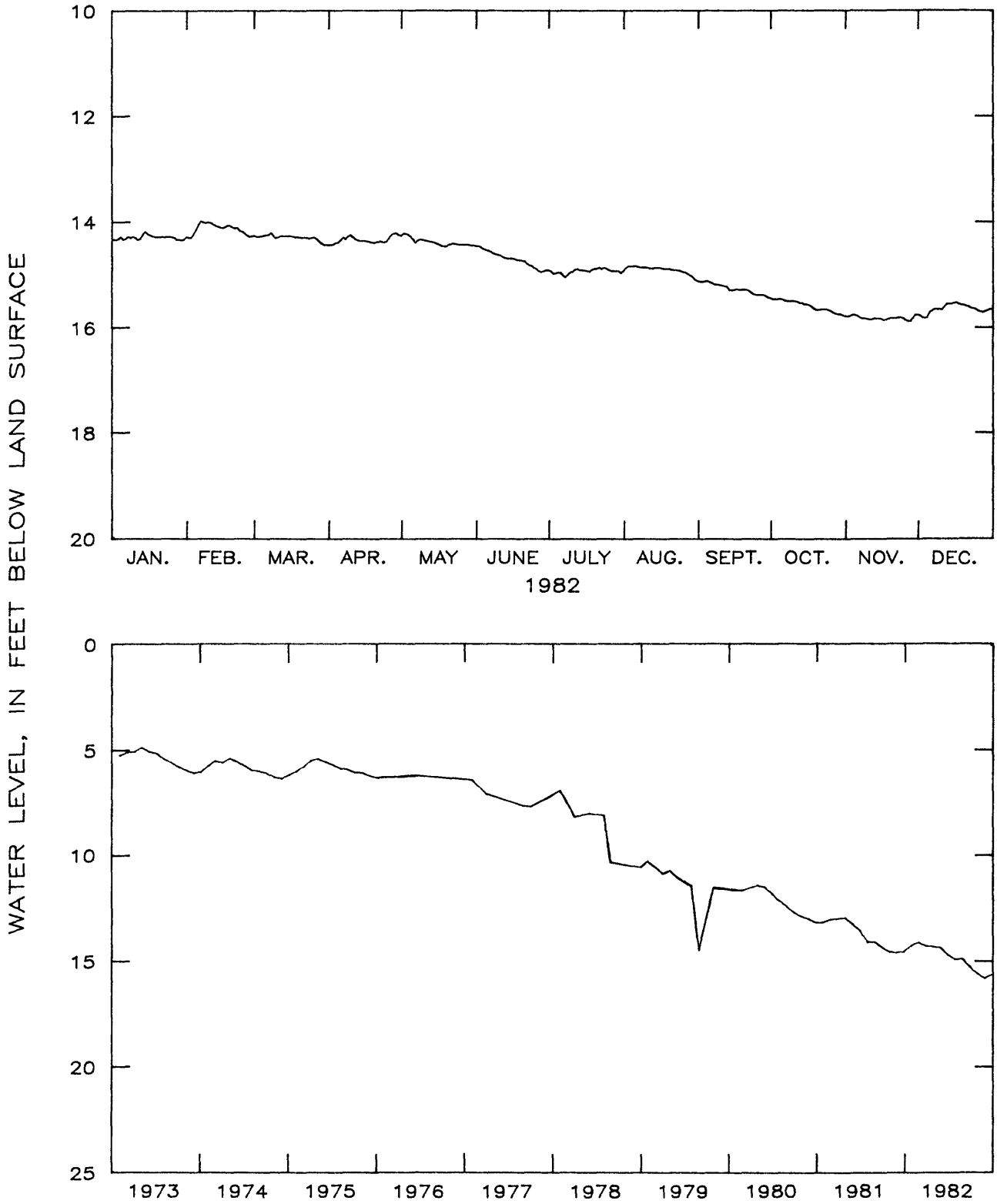

Figure 2.4—4.——Water level in observation well 06S001, Chattahoochee County.

12L021 TEST WELL 10 DOUGHERTY COUNTY

313534084103003 Local number, 12L021.
LOCATION.—Lat 31°35'34", long 84°10'30", Hydrologic Unit 03130008, located in part at intersection of Slappey Drive and Fifth Avenue.
Owner: U.S. Geological Survey, test well 10.
AQUIFER.--Providence.
WELL CHARACTERISTICS.--Drilled unused observation well, depth 1,346 ft, cased to 797 ft.
DATUM.--Altitude of land-surface datum is 198 ft.
Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.
REMARKS.—Water levels for period of missing recorder record, December 12-31, were estimated.
PERIOD OF RECORD.—December 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 103.62 ft below land-surface datum, March 19, 1979; lowest, 144.99 ft below land-surface datum, August 11, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	131.24	129.76	128.43	128.06	126.38	128.14	129.34	131.18	134.54	134.58	136.65	136.71
2	131.52	129.46	128.47	127.93	126.68	127.95	129.43	130.65	134.72	134.58	137.00	136.55
3	131.69	129.58	128.30	127.79	126.91	127.81	129.58	130.52	134.56	134.74	137.33	136.35
4	131.96	129.86	127.92	127.73	126.73	127.81	129.78	130.48	134.22	135.13	137.68	136.00
5	132.22	130.13	127.67	127.48	126.38	127.73	130.07	130.47	133.12	135.07	138.09	136.02
6	132.00	130.37	127.62	127.18	126.42	127.98	130.48	130.82	131.65	135.18	138.38	136.30
7	131.51	130.58	127.87	127.07	126.52	128.45	130.74	130.87	130.74	135.43	138.59	136.54
8	131.02	130.65	128.20	126.94	126.63	128.55	131.12	130.60	131.42	135.21	138.75	136.40
9	130.56	130.42	128.37	127.16	126.97	128.34	131.67	130.45	131.92	134.85	138.63	136.24
10	130.24	129.98	128.37	127.46	127.23	128.39	131.90	130.80	132.29	134.57	138.60	136.33
11	129.87	129.53	128.27	127.66	127.43	128.77	131.92	130.83	132.72	134.08	138.87	136.22
12	129.47	129.18	128.35	127.69	127.59	129.09	132.19	130.68	132.73	133.97	138.44	136.04
13	129.05	128.92	128.29	127.83	127.77	129.38	132.62	130.86	132.82	133.90	137.35	135.81
14	129.15	128.92	128.12	127.50	127.94	129.80	132.82	130.91	132.83	133.72	136.00	135.73
15	129.65	128.97	127.69	127.22	128.11	130.14	132.99	131.17	132.78	133.68	134.94	135.40
16	129.81	128.60	127.23	127.40	128.36	130.47	133.12	131.65	132.91	133.76	135.50	134.64
17	129.93	128.15	126.93	127.62	128.60	130.76	132.96	132.22	133.24	134.41	136.37	133.97
18	130.25	127.93	126.83	127.78	128.86	130.98	133.05	131.91	133.62	134.61	136.62	133.59
19	130.35	127.72	126.67	127.83	129.13	131.16	133.21	131.58	133.77	134.46	136.20	133.41
20	130.42	127.44	126.47	127.88	129.40	131.33	132.90	131.68	133.71	134.28	136.18	133.30
21	130.63	127.37	126.20	127.95	129.37	131.43	132.62	131.54	133.85	134.74	136.25	133.22
22	130.81	127.74	126.02	127.92	129.33	131.52	132.80	131.81	134.33	135.05	135.86	133.21
23	130.91	128.07	126.21	127.52	129.53	131.65	133.13	132.30	134.71	135.17	135.50	133.14
24	131.03	128.22	126.63	126.94	129.54	131.86	133.42	132.73	134.79	135.23	135.61	133.02
25	131.11	128.42	127.02	126.60	129.27	131.78	133.45	133.01	134.75	135.54	135.65	132.88
26	131.14	128.51	127.33	126.69	129.19	131.36	132.40	133.23	134.87	135.98	135.97	132.66
27	131.12	128.37	127.70	126.61	129.28	130.92	131.87	133.48	134.71	136.17	136.16	132.48
28	130.95	128.32	127.92	126.16	129.04	130.48	132.22	133.72	134.20	135.92	136.03	132.44
29	130.85	---	128.05	125.84	128.78	129.95	132.46	134.01	133.98	135.67	136.23	132.35
30	130.77	---	128.08	125.98	128.55	129.30	132.25	134.25	134.22	135.74	136.62	132.13
31	130.59	---	128.13	---	128.36	---	131.70	134.40	---	136.17	---	131.83
MEAN	130.70	128.97	127.59	127.31	128.07	129.78	131.94	131.77	133.49	134.89	136.87	134.55

CAL YR 1982 MEAN 131.34 HIGH 125.84 LOW 138.87

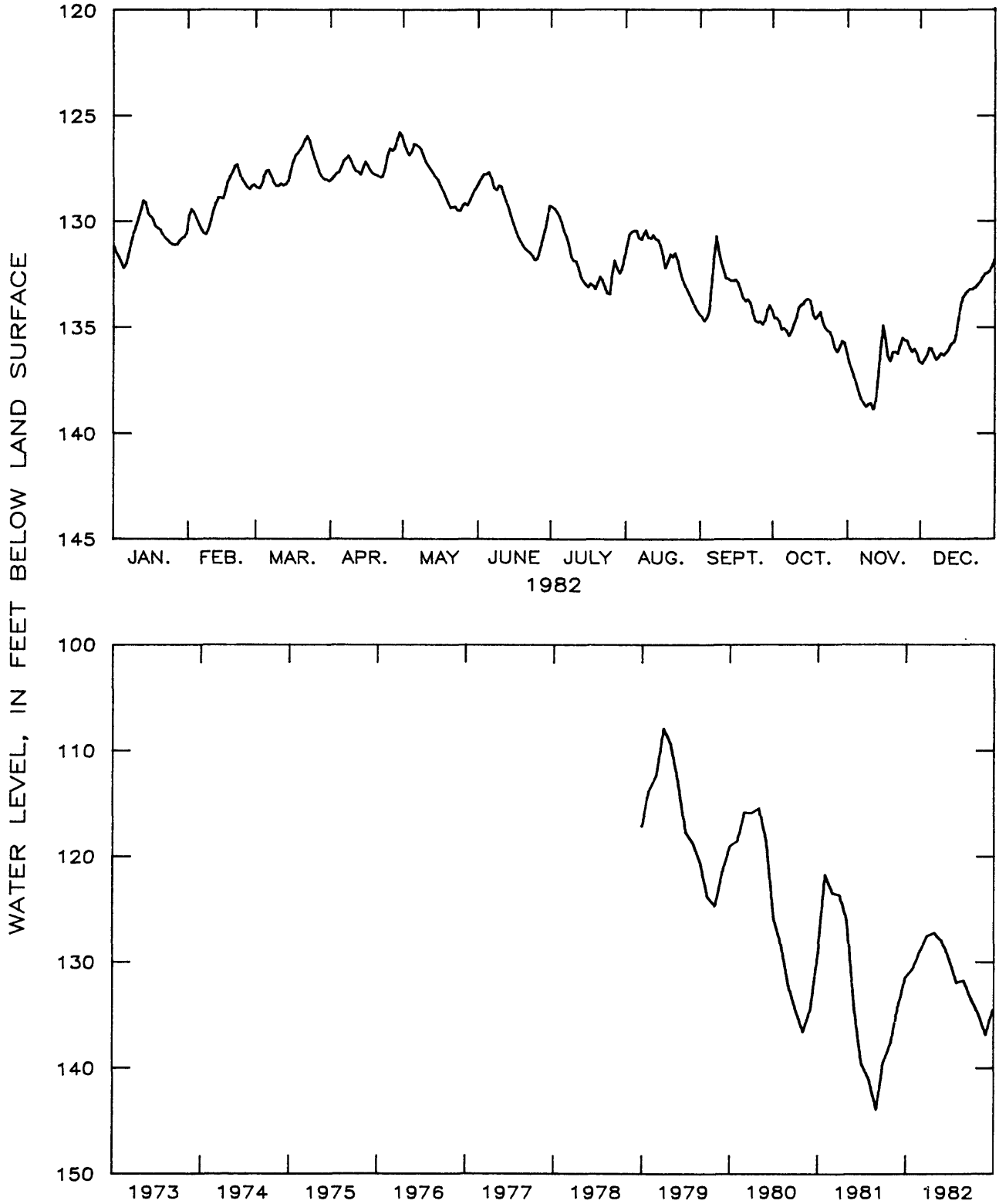

Figure 2.4–5.––Water level in observation well 12L021, Dougherty County.

2.5 Clayton Aquifer

The Clayton aquifer supplies more than 20 Mgal/d for municipal and agricultural use in the area between the Chattahoochee and Flint Rivers in southwest Georgia (John S. Clarke, U.S. Geological Survey, written commun., 1983).

Water levels declined as much as 53 feet in some areas during the period 1976-81 because of increased irrigation pumpage. Above-normal precipitation in 1982 resulted in reduced irrigation pumpage and water levels began to recover. Mean annual water levels were as much as 8.5 feet higher in 1982 than in 1981.

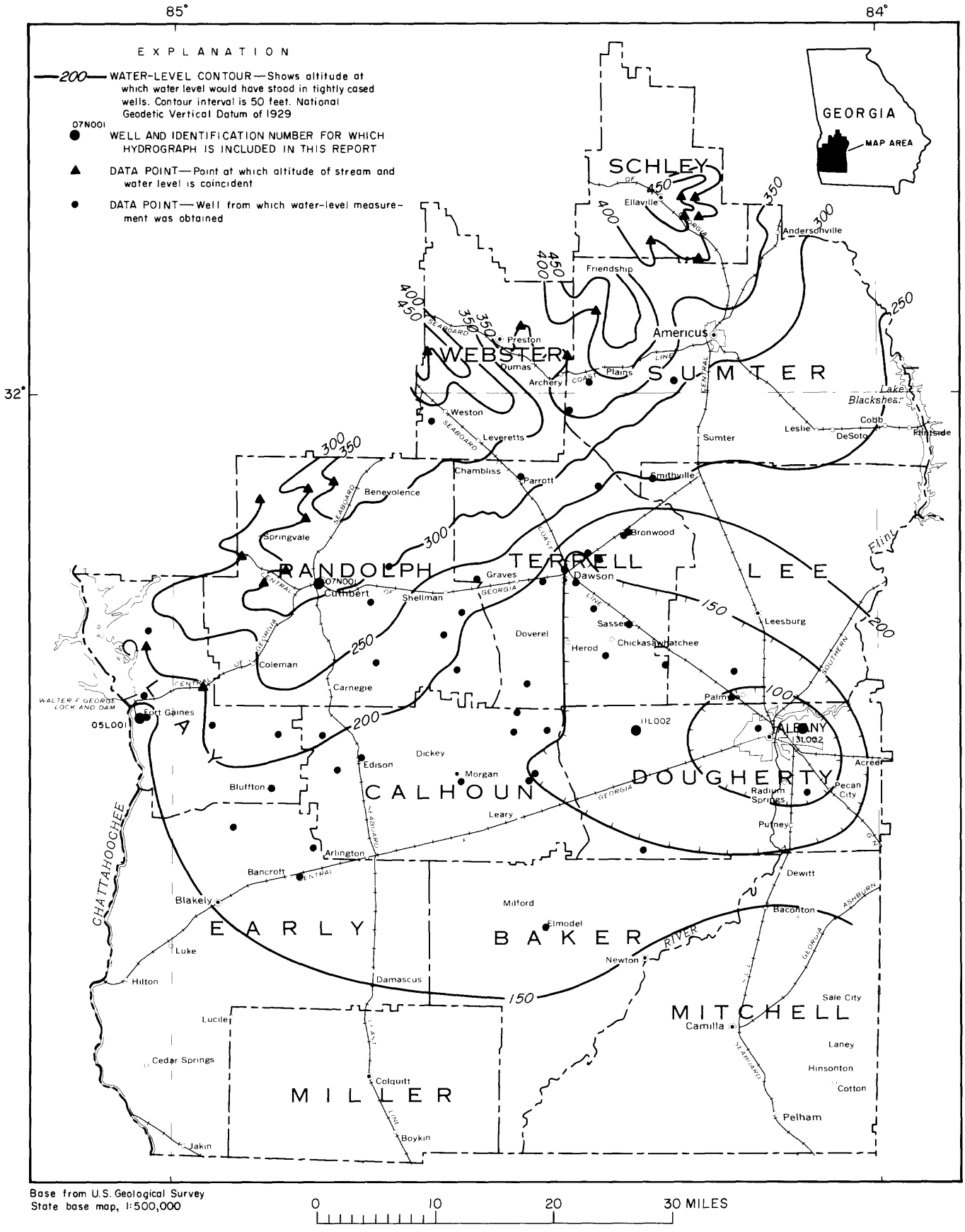

Figure 2.5—1.——Observation well locations and the water level in the Clayton aquifer.

05L001 W. F. GEORGE DAM CLAY COUNTY

313637085032601 Local number, 05L001.
LOCATION.--Lat 31°36'37", long 85°03'26", Hydrologic Unit 03130004, between Chattahoochee River and Fort Gaines waterplant.
Owner: U.S. Army Corps of Engineers.
AQUIFER.--Clayton.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in., depth 120 ft, cased to 44 ft, open hole.
DATUM.--Altitude of land-surface datum is 146.7 ft.
Measuring point: Top of floor of recorder shelter, 2.7 ft above land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, March 31 and April 28 to June 6, were estimated.
PERIOD OF RECORD.--May 23, 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.86 ft below land-surface datum, February 17, 1966; lowest, 35.95 ft below land-surface datum, February 14, 1961.

Water level, in feet below land surface, calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	31.24	31.17	29.60	29.68	30.20	30.30	30.86	30.38	30.41	30.76	31.23	30.92
2	31.17	30.88	29.50	29.79	30.40	30.28	31.07	29.76	30.38	31.15	31.09	30.87
3	31.06	28.81	29.50	29.49	30.45	30.25	31.17	29.66	30.27	31.28	31.08	30.54
4	30.87	25.16	29.49	30.26	30.48	30.40	31.18	29.62	30.74	31.00	31.04	30.81
5	30.84	24.68	29.49	30.50	30.55	30.60	31.10	29.60	30.92	30.93	31.12	29.63
6	30.83	25.27	29.98	30.06	30.60	30.40	31.12	29.54	30.64	30.91	31.48	29.48
7	30.74	27.48	29.93	29.98	30.55	30.35	31.13	30.39	30.58	30.87	31.62	29.46
8	30.67	28.37	29.55	29.98	31.00	30.64	31.17	30.60	30.57	30.82	31.29	29.43
9	30.63	28.82	29.08	30.02	30.85	30.00	30.58	30.21	30.65	31.17	31.24	29.33
10	31.04	28.96	28.99	30.15	30.82	29.63	31.03	30.13	30.64	31.32	31.23	29.80
11	31.16	29.03	28.96	30.46	30.80	30.19	31.16	29.88	30.91	31.05	31.20	29.89
12	31.08	28.80	29.31	30.57	30.82	30.81	30.72	29.90	31.03	30.96	31.18	29.19
13	30.94	28.57	30.02	30.11	30.70	30.92	31.12	29.96	30.94	30.93	31.60	29.21
14	30.90	28.92	30.15	30.09	30.60	30.98	30.70	30.51	30.50	30.94	31.69	29.19
15	30.58	28.94	29.77	30.16	30.80	31.06	30.66	30.71	30.68	30.96	31.35	29.09
16	30.54	28.90	29.72	30.16	31.15	30.97	30.81	30.34	30.18	31.27	31.33	28.99
17	30.51	27.90	29.57	30.23	30.92	30.67	31.01	30.16	30.70	31.44	31.24	28.97
18	30.83	28.36	29.59	30.58	30.75	30.57	31.06	30.12	30.97	31.25	31.31	29.66
19	30.84	28.75	29.74	30.73	30.72	30.83	30.58	30.12	31.09	31.16	31.19	30.43
20	30.82	28.72	30.17	30.30	30.70	31.03	30.34	30.13	30.72	31.13	31.61	29.84
21	30.83	28.67	30.09	30.03	30.68	30.69	30.37	30.60	30.62	31.11	31.75	29.80
22	30.81	28.71	29.32	30.01	30.80	30.54	30.16	30.76	30.68	31.14	31.38	29.76
23	31.38	28.71	29.40	30.00	31.28	30.55	30.10	30.31	30.67	31.45	31.26	29.72
24	31.57	28.67	29.42	30.02	31.20	30.70	30.62	30.19	30.77	31.60	31.21	29.65
25	31.16	29.12	29.62	30.65	30.85	30.76	30.79	29.98	31.05	31.30	31.44	30.37
26	31.12	29.29	29.98	30.87	30.87	30.96	30.19	30.15	31.22	31.14	31.37	30.56
27	31.15	29.87	30.33	30.92	30.90	31.09	30.12	30.20	30.98	31.11	31.68	30.07
28	31.09	30.07	29.95	30.50	30.93	30.90	30.13	30.77	30.80	31.00	31.74	29.95
29	31.07	---	29.93	29.70	31.05	30.60	30.10	30.97	30.79	30.97	31.39	29.89
30	31.47	---	30.13	30.00	31.15	30.80	30.08	30.63	30.83	31.44	31.15	28.99
31	31.57	---	29.90	---	31.00	---	30.50	30.45	---	31.61	---	28.93
MEAN	30.98	29.56	29.68	30.20	30.79	30.62	30.70	30.22	30.73	31.13	31.35	29.76

CAL YR 1982 MEAN 30.40 HIGH 24.68 LOW 31.75

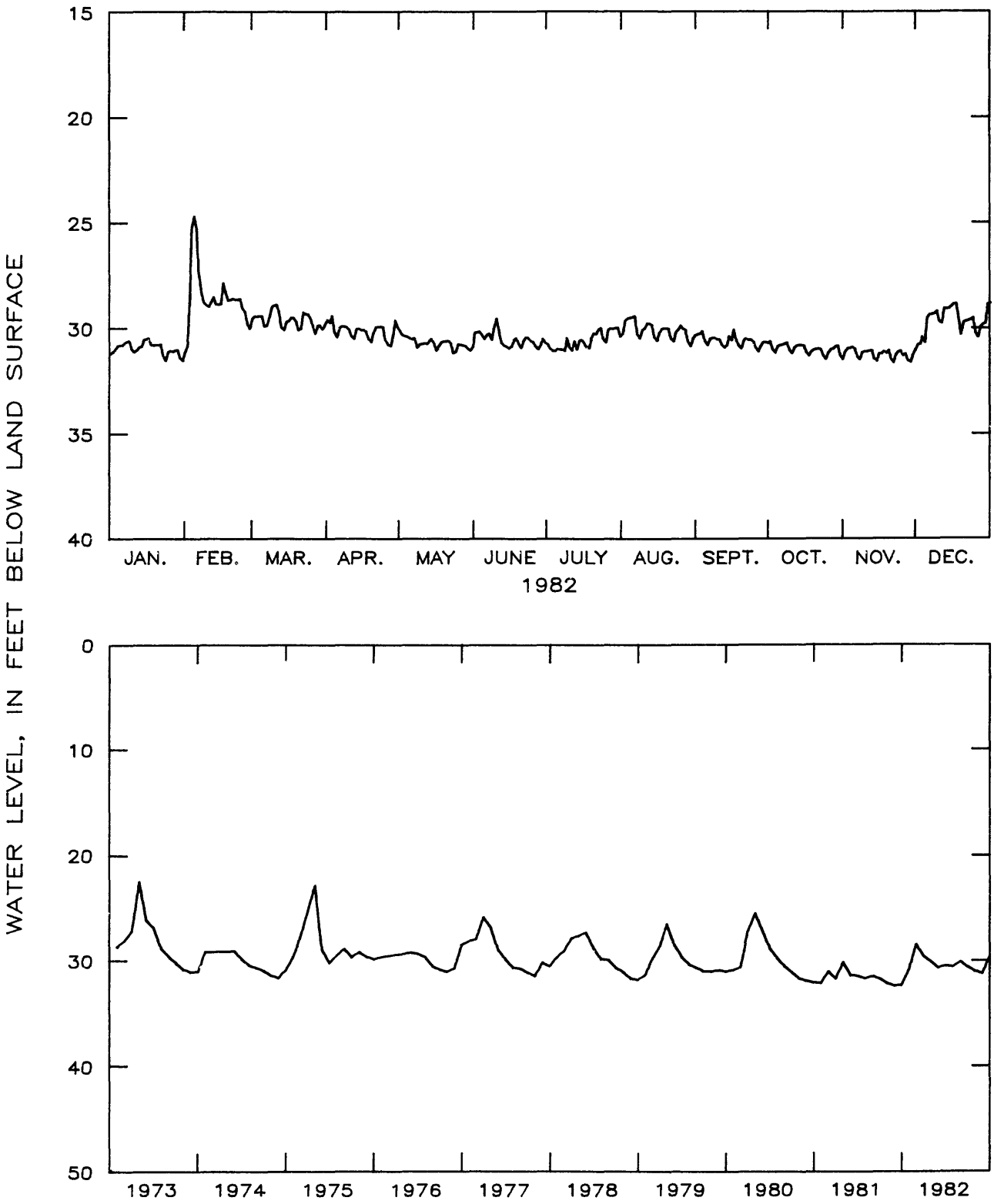

Figure 2.5–2.––Water level in observation well 05L001, Clay County.

07N001 CUTHBERT RANDOLPH COUNTY

314602084473701 Local number, 07N001.
LOCATION.--Lat 31°46'09", long 84°47'43", Hydrologic Unit 03110204, south of intersection of College and Andrew Streets, near electric substation.
Owner: City of Cuthbert.
AQUIFER.--Clayton.
WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 8 in., depth 372 ft, casing depth unknown.
DATUM.--Altitude of land-surface datum is 460 ft.
Measuring point: Floor of recorder shelter, 3.30 ft above land-surface datum.
REMARKS.--Well pumped and sounded June 22, 1978, to a depth of 372 ft; water-quality sample collected at conclusion of pumping. Well near city wells. Water levels for periods of missing recorder record, March 18-31, May 9-11, May 21 to June 6, and August 1-18, were estimated.
PERIOD OF RECORD.--January 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.0 ft below land-surface datum, December 10, 1967; lowest, 154.80 ft below land-surface datum, June 7, 1982.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	148.08	147.69	146.22	147.65	146.16	152.02	152.07	148.57	150.75	150.66	149.01	147.62
2	146.28	146.60	146.69	147.27	145.98	152.43	151.52	147.77	151.35	150.49	148.79	147.03
3	146.87	147.32	146.35	146.90	147.33	153.24	152.11	147.66	150.44	150.46	148.53	147.23
4	146.46	148.81	146.27	145.91	147.29	153.44	151.91	147.75	150.64	150.70	148.52	146.95
5	146.86	148.66	146.37	146.57	146.94	153.76	152.60	148.25	150.30	150.67	148.57	146.89
6	147.18	146.46	146.07	146.68	147.12	154.17	153.35	148.13	151.09	150.21	148.19	147.37
7	146.86	146.70	146.27	146.27	147.58	154.80	152.16	148.30	151.44	149.75	147.95	147.40
8	147.10	146.31	146.14	145.81	147.69	154.43	152.56	148.59	151.92	149.98	150.17	147.40
9	147.15	146.06	146.29	146.70	147.28	154.71	151.42	148.77	151.68	150.28	148.87	147.40
10	147.96	146.91	146.33	146.37	148.13	154.20	151.48	148.83	151.30	149.94	148.39	147.17
11	150.01	146.79	145.78	146.20	149.18	154.61	150.29	148.91	151.52	150.82	148.11	146.98
12	151.75	146.26	145.97	147.31	150.09	154.09	151.15	148.59	151.77	149.87	148.38	146.89
13	153.22	146.27	145.45	147.57	149.82	153.16	151.84	148.24	151.97	149.42	147.89	147.72
14	152.00	146.00	145.48	145.98	150.84	154.53	151.52	147.95	152.05	149.49	147.49	147.85
15	151.71	146.24	145.70	146.06	151.08	154.34	151.05	148.27	151.52	147.27	147.87	147.54
16	149.55	146.05	146.06	146.23	149.67	154.65	150.18	148.49	151.87	148.63	148.04	147.63
17	147.85	146.17	145.72	145.67	150.25	153.43	150.47	148.34	151.51	148.44	148.13	147.44
18	149.37	146.14	146.01	145.81	151.22	152.52	151.25	148.77	151.12	149.69	147.80	147.42
19	148.48	146.36	146.31	146.09	150.35	153.74	150.90	148.54	150.52	149.61	147.90	147.08
20	147.60	146.64	145.83	146.41	150.87	153.60	151.03	148.28	151.81	149.13	148.06	147.62
21	147.36	145.79	146.54	147.53	150.90	152.89	150.88	148.54	151.21	148.89	147.84	147.67
22	147.07	145.90	146.77	145.87	151.84	153.65	150.92	148.22	150.59	149.00	148.44	147.57
23	146.81	146.32	146.73	145.19	152.34	152.57	150.04	148.97	150.77	148.11	148.35	147.43
24	146.83	146.52	147.00	145.74	152.04	152.27	149.80	148.70	151.07	147.84	148.10	147.47
25	149.03	146.15	146.29	146.61	151.40	151.98	150.68	149.71	150.84	148.74	147.89	147.25
26	148.24	146.08	146.91	145.84	151.09	151.75	150.35	150.32	150.18	148.79	147.95	147.16
27	148.09	146.08	147.21	145.68	151.11	151.62	150.11	149.48	150.46	148.76	147.47	147.28
28	147.53	145.79	147.03	145.71	151.25	151.71	150.16	149.42	150.76	148.56	147.20	147.76
29	147.68	---	147.10	146.01	151.17	151.52	150.02	149.05	150.76	148.92	147.43	147.52
30	146.83	---	147.66	145.55	151.31	151.87	149.55	149.88	150.46	148.53	148.21	147.19
31	146.74	---	147.56	---	151.62	---	149.32	150.22	---	148.19	---	147.19
MEAN	148.21	146.54	146.39	146.31	149.71	153.26	151.05	148.69	151.12	149.35	148.18	147.36

CAL YR 1982 MEAN 148.86 HIGH 145.19 LOW 154.80

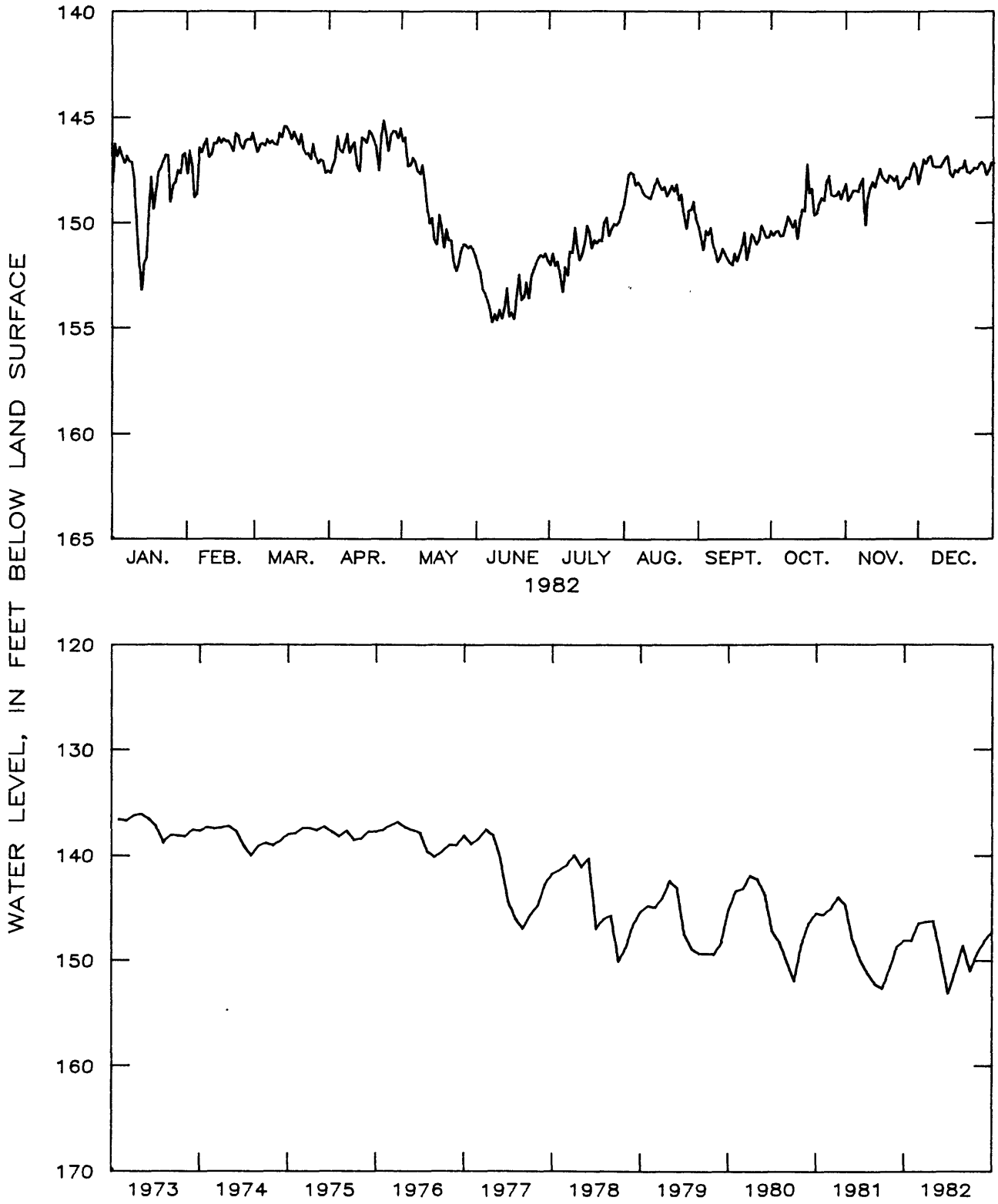

Figure 2.5—3.——Water level in observation well 07N001, Randolph County.

11L002 ALBANY NURSERY DOUGHERTY COUNTY

313530084203201 Local number, 11L002.
LOCATION.--Lat 31°35'32", long 84°20'35", Hydrologic Unit 03130008, Tallahassee Plantation, 10.4 mi west of Albany.
Owner: Georgia Department of Natural Resources, Albany Nursery.
AQUIFER.--Clayton.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in., depth 656 ft, cased to 542 ft, open hole.
DATUM.--Altitude of land-surface datum is 222 ft.
Measuring point: Floor of recorder shelter, 3.02 ft above land-surface datum.
REMARKS.--Well pumped April 1976; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted June 3, 1975. Water levels for periods of missing recorder record, October 19 to November 1 and November 3-30, were estimated.
PERIOD OF RECORD.--September 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.90 ft below land-surface datum, April 29, 1975; lowest, 123.45 ft below land-surface datum, August 2, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	99.88	96.78	94.78	92.51	90.88	99.14	104.04	99.69	101.25	102.56	97.80	94.40
2	99.60	96.42	94.64	92.38	90.86	99.28	103.80	99.45	101.78	102.70	97.68	94.30
3	99.47	96.12	94.41	92.27	90.82	99.49	103.53	99.29	102.30	102.78	97.53	94.17
4	99.33	96.08	94.30	92.30	90.82	99.62	103.20	99.22	102.82	102.77	97.46	93.98
5	99.18	96.02	94.22	92.07	90.95	99.72	102.97	99.09	103.19	102.68	97.34	93.83
6	99.03	95.92	94.12	91.89	91.10	100.13	102.87	98.88	103.35	102.44	97.11	93.80
7	98.82	95.85	93.97	91.93	91.35	100.59	102.70	98.72	103.19	102.14	96.85	93.77
8	98.68	95.67	94.10	91.84	91.69	100.85	102.78	98.63	102.98	101.96	96.88	93.73
9	98.56	95.46	94.00	91.68	91.96	101.12	102.98	98.60	102.82	101.78	96.76	93.53
10	98.44	95.37	93.77	91.66	92.02	101.57	103.14	98.58	102.72	101.62	96.73	93.34
11	98.42	95.38	93.57	91.67	92.07	102.13	103.22	98.50	102.67	101.43	96.71	92.98
12	98.28	95.30	93.52	91.68	92.45	102.91	103.22	98.27	102.62	101.17	96.68	92.87
13	97.93	95.20	93.47	91.60	92.13	103.62	103.21	98.04	102.58	100.92	96.46	92.98
14	97.59	95.18	93.46	91.57	93.92	104.06	103.12	97.83	102.47	100.72	96.20	92.88
15	97.48	95.16	93.52	91.59	94.85	104.24	102.95	97.71	102.26	100.62	95.98	92.59
16	97.40	94.99	93.53	91.74	95.71	104.37	102.85	97.57	102.03	100.47	95.97	92.48
17	97.35	94.67	93.57	91.87	96.41	104.49	102.73	97.45	101.87	100.41	95.88	92.45
18	97.32	94.53	93.64	91.92	97.11	104.59	102.53	97.46	101.70	100.26	95.92	92.40
19	97.28	94.60	93.69	91.82	97.91	104.66	102.27	97.58	101.48	100.12	95.78	92.26
20	97.22	94.68	93.60	91.91	98.75	104.61	101.98	97.60	101.26	100.07	95.53	92.32
21	97.22	94.77	93.45	92.04	99.63	104.65	101.81	97.48	101.24	99.90	95.48	92.34
22	97.20	94.84	93.27	92.08	100.29	104.81	101.69	97.40	101.38	99.67	95.45	92.27
23	97.20	94.80	93.14	92.03	100.63	105.00	101.54	97.45	101.56	99.50	95.37	92.00
24	97.18	94.65	92.99	91.77	100.69	105.16	101.36	97.54	101.54	99.34	95.32	91.80
25	97.17	94.61	92.80	91.45	100.57	105.24	101.15	97.61	101.53	99.15	95.24	91.79
26	97.18	94.77	92.73	91.20	100.32	105.17	100.93	97.83	101.82	98.91	95.03	91.68
27	97.13	94.82	92.69	91.07	100.05	105.07	100.75	98.07	102.18	98.75	94.89	91.53
28	97.08	94.78	92.72	91.03	99.87	104.88	100.57	98.42	102.35	98.50	94.71	91.37
29	97.04	---	92.70	90.96	99.70	104.61	100.38	99.09	102.38	98.36	94.52	91.18
30	97.03	---	92.57	90.92	99.48	104.30	100.18	99.94	102.46	98.24	94.47	91.13
31	97.00	---	92.51	---	99.24	---	99.97	100.67	---	98.05	---	91.19
MEAN	97.93	95.27	93.53	91.75	95.62	103.00	102.27	98.38	102.19	100.58	96.12	92.69

CAL YR 1982 MEAN 97.45 HIGH 90.82 LOW 105.24

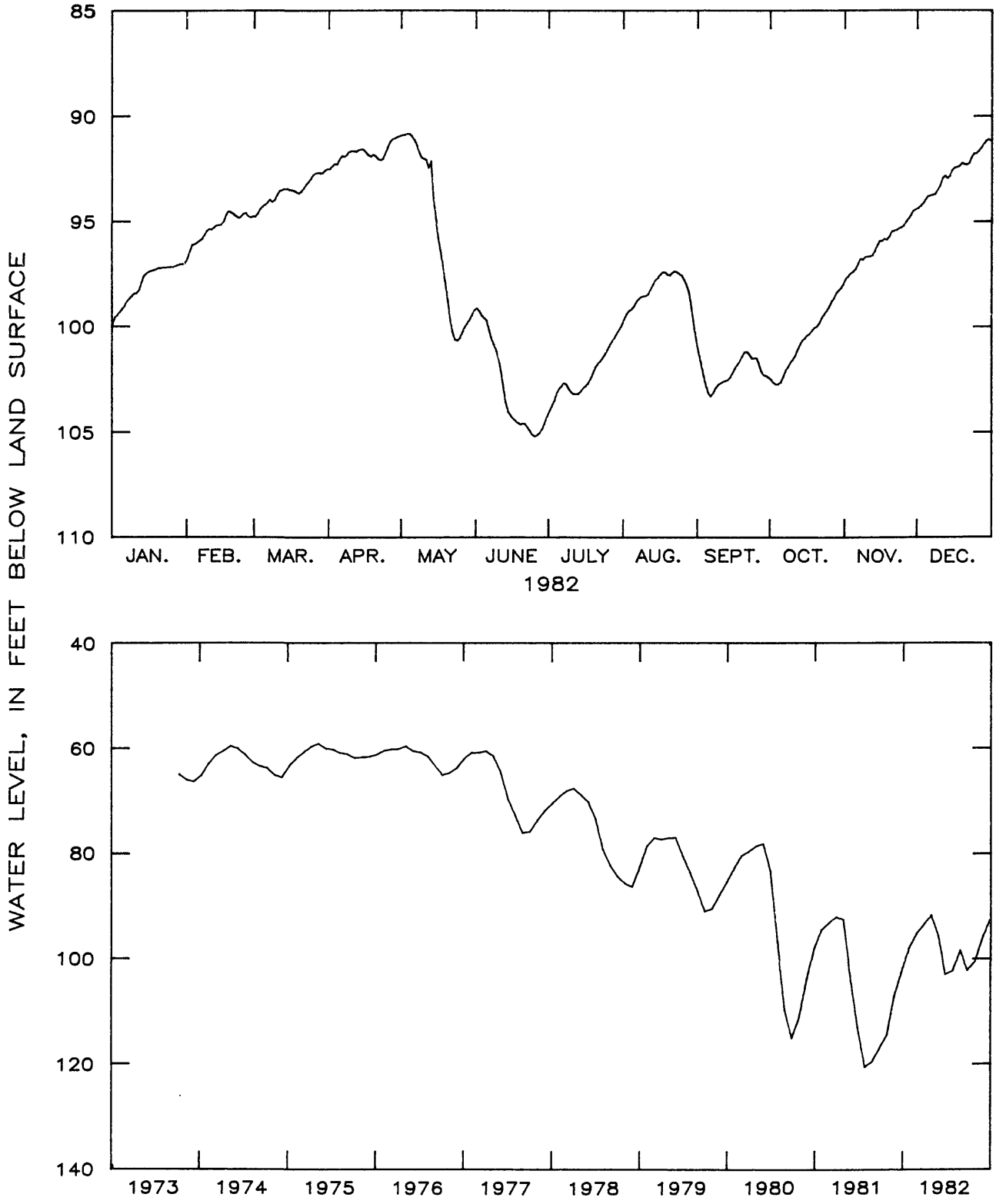

Figure 2.5—4.——Water level in observation well 11L002, Dougherty County.

13L002 TURNER CITY DOUGHERTY COUNTY

313554084062601 Local number, 13L002.
LOCATION.--Lat 31°35'54", long 84°06'25", Hydrologic Unit 03130008, Malone and Gardner Avenue near main entrance to Turner Field, Albany.
Owner: City of Albany, Turner City.
AQUIFER.--Clayton.
WELL CHARACTERISTICS.--Drilled unused supply well, diameter 12 in. and 8 in., depth 760 ft, cased to 713 ft, open hole.
DATUM.--Altitude of land-surface datum is 212.84 ft.
Measuring point: Floor of recorder shelter, 3.2 ft above land-surface datum.
REMARKS.--Well pumped and sounded to a depth of 760 ft, June 21, 1978: water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted March 17, 1977. Water levels for period of missing recorder record, July 5 to August 2, were estimated.
PERIOD OF RECORD.--December 1957 to December 1959, January 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.19 ft below land-surface datum, April 1, 1959; lowest, 153.04 ft below land-surface datum, August 1, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values.

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	138.79	137.07	132.52	129.80	129.43	134.74	139.17	135.66	136.35	135.27	138.36	130.48
2	138.49	137.33	131.58	129.34	129.45	134.46	139.59	134.92	136.24	135.92	138.59	131.36
3	138.19	137.58	130.99	130.22	128.96	134.35	139.76	134.87	136.34	136.49	137.98	132.10
4	137.89	137.97	131.29	129.64	129.52	134.62	139.44	135.50	136.49	136.54	138.90	132.27
5	137.95	138.13	131.17	129.12	129.18	135.20	139.16	135.72	135.84	135.05	137.17	132.23
6	137.91	138.13	132.05	129.04	130.45	135.71	138.86	136.05	136.42	136.57	137.12	132.52
7	137.85	136.62	132.32	129.06	129.91	135.91	139.04	136.23	136.57	137.47	136.13	131.18
8	137.84	134.71	132.26	129.47	131.10	134.80	139.30	136.07	136.21	137.82	134.69	131.00
9	137.86	136.46	132.03	127.63	131.75	135.94	139.12	135.75	136.40	137.84	134.99	131.04
10	137.94	137.01	132.14	129.54	131.37	136.74	138.73	135.59	136.27	137.52	136.65	131.94
11	137.21	136.94	132.45	130.25	131.71	137.38	138.89	135.62	135.46	137.10	136.21	131.96
12	137.40	136.78	132.73	130.03	132.35	137.94	138.94	135.45	135.92	135.96	137.27	129.96
13	137.42	136.26	133.28	129.71	132.99	138.32	139.33	135.08	136.38	136.54	135.75	129.25
14	137.95	135.84	131.23	128.38	133.35	138.51	139.17	134.73	136.37	136.04	135.20	131.48
15	138.78	135.38	129.99	129.48	133.93	138.51	138.83	134.40	135.71	137.15	135.73	132.15
16	139.04	134.89	132.09	129.90	134.44	138.60	139.39	134.41	136.25	136.77	135.81	132.51
17	139.17	134.70	132.26	129.82	134.77	138.98	139.01	134.85	136.82	137.26	135.62	131.63
18	138.80	134.82	132.81	128.84	135.16	139.19	138.75	133.54	136.78	136.96	136.37	130.58
19	138.67	134.50	132.08	129.41	135.72	139.48	138.65	133.08	136.37	136.65	136.85	130.79
20	138.68	133.86	132.03	129.78	136.13	139.61	138.11	134.65	136.09	136.59	136.88	129.88
21	138.53	131.88	132.63	130.37	136.25	139.45	138.46	135.24	136.27	136.77	136.73	130.40
22	138.46	132.28	132.56	130.82	136.33	137.36	138.48	135.35	136.51	137.11	136.47	128.30
23	138.28	132.79	132.09	131.05	136.26	139.01	138.25	135.56	136.47	137.60	136.23	128.53
24	138.43	133.10	131.78	130.85	135.65	139.72	137.86	135.80	135.21	137.89	136.17	128.23
25	137.98	133.44	131.77	130.24	134.99	140.35	137.50	136.11	135.04	137.17	135.80	128.59
26	138.05	133.82	132.25	129.65	135.01	140.76	137.50	136.57	135.03	137.29	132.47	128.66
27	138.03	133.87	132.31	129.52	135.42	140.91	136.95	136.87	134.86	137.86	130.66	126.41
28	137.90	133.28	132.03	129.60	135.82	139.74	136.61	136.77	134.95	138.47	129.27	128.06
29	137.72	---	132.01	129.83	136.02	139.74	136.48	137.10	133.77	137.23	128.56	127.66
30	136.39	---	131.86	128.61	135.84	138.59	136.34	137.04	134.62	138.13	128.76	126.08
31	136.87	---	131.34	---	135.35	---	136.35	136.67	---	138.43	---	124.10
MEAN	138.08	135.34	132.00	129.63	133.37	137.82	138.45	135.52	135.93	137.01	135.45	130.04

CAL YR 1982 MEAN 134.89 HIGH 124.10 LOW 140.91

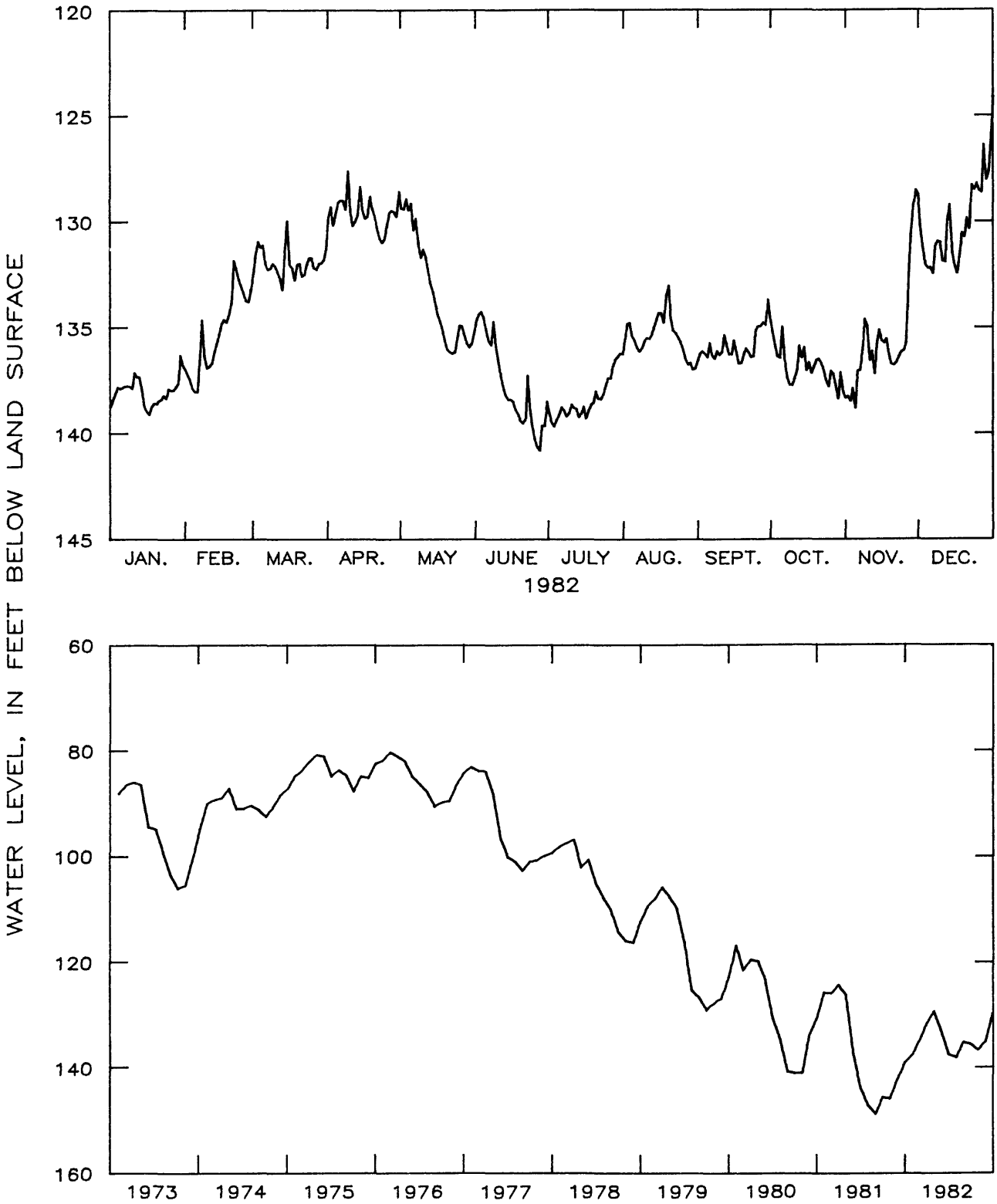

Figure 2.5–5.––Water level in observation well 13L002, Dougherty County.

2.6 Tallahatta Aquifer

The Tallahatta aquifer is a major aquifer in the Albany area and supplies more than 20 Mgal/d for municipal, agricultural, and industrial use (David W. Hicks, U.S. Geological Survey, oral commun., 1983). The aquifer is comprised of several hydraulically interconnected water-bearing zones of sand, limestone, and coquina.

Mean annual water levels in the Tallahatta aquifer ranged from 4.5 to 5.4 feet higher in 1982 than in 1981. A reduction in pumpage as a result of above-normal precipitation during the summer months allowed the water levels to rise.

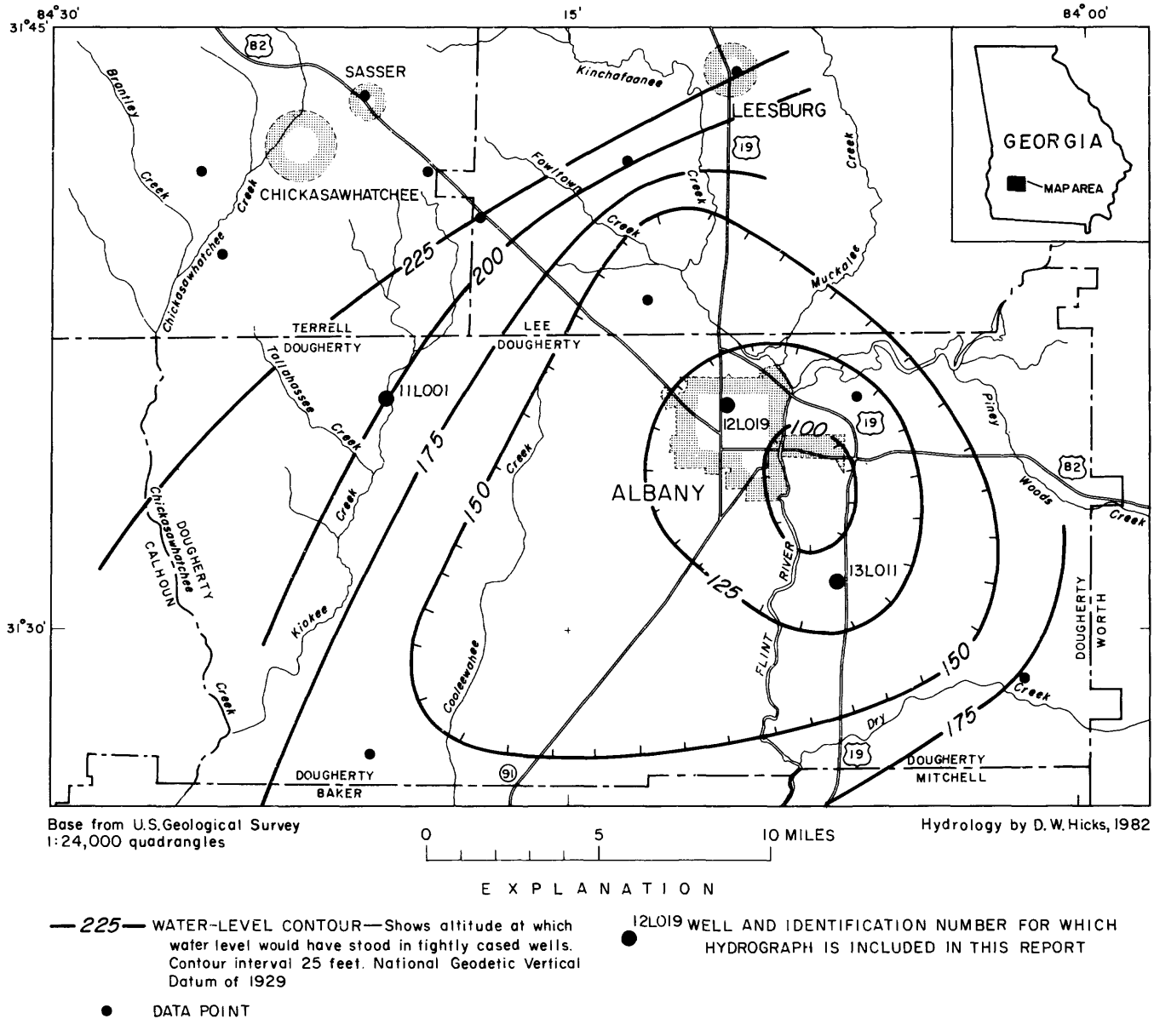

Figure 2.6—1.——Observation well locations and the water level in the Tallahatta aquifer, April 1982.

11L001 TEST WELL 4 DOUGHERTY COUNTY

31353084203202 Local number, 11L001.
LOCATION.--Lat 31°35'30", long 84°20'32", Hydrologic Unit 03130008, 10.4 mi west of Albany.
Owner: U.S. Geological Survey, test well 4.
AQUIFER.--Tallahatta.
WELL CHARACTERISTICS.--Drilled unused observation well, depth 251 ft, cased to 233 ft.
DATUM.--Altitude of land-surface datum is 220 ft.
Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.
REMARKS.--Water levels for period of missing recorder record, October 19 to November 1, were estimated.
PERIOD OF RECORD.--March 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.11 ft below land-surface datum, June 5-6, 1978; lowest, 26.38 ft below land-surface datum, November 21-22, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	24.97	22.23	20.40	18.66	17.92	18.00	19.04	19.57	19.18	19.71	20.88	20.58
2	24.92	22.14	20.32	18.62	17.90	18.04	19.10	19.47	19.17	19.73	20.88	20.60
3	24.87	22.05	20.23	18.58	17.87	18.07	19.13	19.48	19.12	19.77	20.86	20.58
4	24.83	22.00	20.17	18.56	17.86	18.12	19.16	19.49	19.12	19.79	20.79	20.56
5	24.76	21.95	20.12	18.52	17.85	18.18	19.18	19.52	19.25	19.85	20.82	20.50
6	24.68	21.88	20.04	18.49	17.86	18.23	19.23	19.50	19.21	19.90	20.82	20.47
7	24.60	21.83	19.97	18.45	17.83	18.28	19.30	19.48	19.14	19.93	20.82	20.48
8	24.53	21.82	19.88	18.42	17.82	18.30	19.34	19.47	19.15	19.97	20.81	20.48
9	24.47	21.72	19.80	18.37	17.83	18.33	19.35	19.45	19.17	20.00	20.81	20.46
10	24.37	21.62	19.73	18.33	17.84	18.38	19.33	19.41	19.17	20.06	20.80	20.43
11	24.25	21.57	19.69	18.31	17.84	18.43	19.34	19.38	19.15	20.12	20.78	20.40
12	24.16	21.51	19.66	18.24	17.85	18.48	19.35	19.35	19.18	20.17	20.75	20.37
13	24.07	21.47	19.62	18.19	17.86	18.50	19.38	19.31	19.20	20.21	20.74	20.32
14	23.97	21.44	19.58	18.17	17.87	18.53	19.42	19.26	19.23	20.24	20.74	20.28
15	23.86	21.28	19.52	18.16	17.88	18.72	19.44	19.26	19.22	20.27	20.74	20.20
16	23.77	21.17	19.44	18.16	17.89	18.76	19.45	19.26	19.22	20.33	20.74	20.14
17	23.67	21.06	19.38	18.14	17.92	18.77	19.45	19.24	19.24	20.38	20.72	20.12
18	23.55	21.00	19.33	18.13	17.94	18.79	19.46	19.22	19.26	20.42	20.71	20.09
19	23.47	20.95	19.26	18.13	17.97	18.84	19.47	19.20	19.28	20.46	20.68	20.07
20	23.37	20.90	19.19	18.11	17.98	18.88	19.49	19.20	19.34	20.50	20.68	20.06
21	23.28	20.86	19.13	18.09	17.99	18.93	19.51	19.18	19.40	20.53	20.67	20.05
22	23.18	20.80	19.06	18.08	18.01	18.94	19.54	19.17	19.43	20.56	20.67	20.03
23	23.09	20.76	18.99	18.05	18.02	18.92	19.55	19.16	19.47	20.60	20.64	20.00
24	23.00	20.68	18.93	18.03	17.98	18.94	19.55	19.16	19.52	20.63	20.65	19.97
25	22.91	20.64	18.86	18.02	17.94	18.96	19.56	19.15	19.54	20.66	20.66	19.95
26	22.82	20.61	18.82	18.02	17.87	18.93	19.56	19.14	19.58	20.69	20.66	19.93
27	22.71	20.56	18.80	17.99	17.79	18.96	19.56	19.14	19.61	20.73	20.64	19.90
28	22.62	20.48	18.79	17.97	17.82	19.00	19.57	19.14	19.63	20.76	20.64	19.82
29	22.52	---	18.77	17.96	17.87	19.00	19.57	19.15	19.66	20.79	20.61	19.72
30	22.43	---	18.74	17.94	17.92	19.01	19.68	19.17	19.68	20.83	20.58	19.66
31	22.33	---	18.69	---	17.97	---	19.67	19.18	---	20.86	---	19.59
MEAN	23.74	21.32	19.45	18.23	17.90	18.61	19.41	19.30	19.32	20.30	20.73	20.19

CAL YR 1982 MEAN 19.87 HIGH 17.79 LOW 24.97

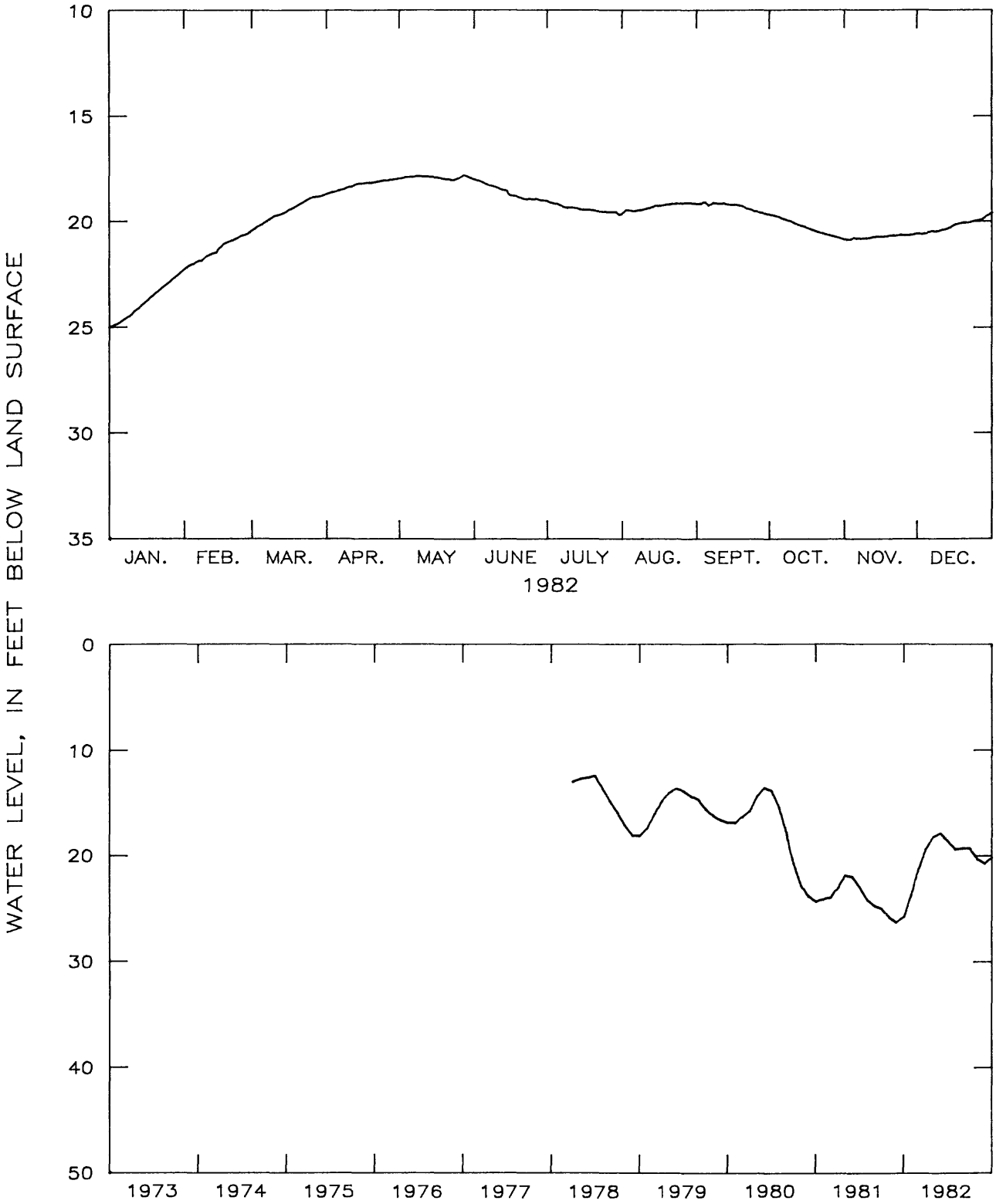

Figure 2.6–2.––Water level in observation well 11L001 Dougherty County.

12L019 TEST WELL 5 DOUGHERTY COUNTY

313534084103001 Local number, 12L019.
LOCATION.—Lat 31°35'34", long 84°10'30", Hydrologic Unit 03130008, located in part at intersection of Slappey Drive and Fifth Avenue.
Owner: U.S. Geological Survey, test well 5.
AQUIFER.—Tallahatta.
WELL CHARACTERISTICS.—Drilled unused observation well, depth 257 ft, cased and screened to 88 ft.
DATUM.—Altitude of land-surface datum is 198 ft.
Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.
REMARKS.—Water level for period of missing recorder record, August 30, was estimated.
PERIOD OF RECORD.—March 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 72.62 ft below land-surface datum, March 22, 1978; lowest, 99.53 ft below land-surface datum, August 1-2, 1978.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	84.76	82.18	79.97	80.32	79.70	82.68	84.50	86.50	86.52	87.47	89.19	89.40
2	84.61	81.93	79.68	80.52	79.78	82.92	84.91	86.47	86.79	87.34	89.36	89.52
3	84.34	81.85	79.77	80.66	79.92	83.08	85.26	86.48	87.10	87.50	89.50	89.49
4	83.98	81.83	80.04	80.59	80.10	83.06	85.54	86.55	87.35	87.70	89.61	89.58
5	83.71	81.92	80.15	80.64	80.17	82.97	85.76	86.60	87.68	87.86	89.87	89.55
6	83.42	81.99	80.14	81.02	80.25	83.04	86.03	86.65	87.85	88.04	89.99	89.42
7	83.17	81.73	80.01	81.41	80.44	83.08	86.24	86.64	87.94	88.17	90.07	89.33
8	82.90	81.36	79.92	81.46	80.63	83.06	86.29	86.62	88.00	88.33	90.13	89.27
9	82.59	81.29	79.95	81.45	80.85	83.10	86.13	86.64	88.14	88.46	90.23	89.04
10	82.37	81.33	79.72	81.47	81.02	83.26	86.23	86.68	88.22	88.62	90.29	89.00
11	82.12	81.04	79.47	81.10	81.21	83.47	86.40	86.71	88.32	88.74	90.36	88.94
12	81.84	80.71	79.46	80.66	81.43	83.69	86.58	86.72	88.46	88.84	90.42	88.81
13	81.56	80.30	79.57	80.22	81.72	83.89	86.81	86.73	88.53	88.94	90.55	88.63
14	81.65	80.00	79.55	79.95	81.97	83.71	86.99	86.71	88.55	89.10	90.63	88.59
15	81.84	79.74	79.43	80.14	82.25	83.69	87.10	86.63	88.58	89.22	90.67	88.31
16	81.84	79.73	79.60	80.43	82.48	83.90	87.22	86.39	88.62	89.33	90.65	87.60
17	81.84	79.79	79.87	80.29	82.70	84.10	87.27	85.90	88.73	89.46	90.63	86.98
18	81.78	80.01	80.00	80.02	82.92	83.88	87.28	85.73	88.82	89.59	90.57	86.65
19	81.72	80.28	79.97	79.76	83.19	83.91	87.22	85.78	88.86	89.45	90.40	86.52
20	81.65	80.59	79.85	79.71	83.27	83.75	87.05	85.85	88.83	89.32	90.18	86.46
21	81.71	80.41	79.69	79.87	83.06	83.51	86.96	85.97	88.86	89.33	89.72	86.43
22	81.89	80.31	79.46	79.98	82.87	83.57	86.95	85.96	88.87	89.45	89.21	86.46
23	82.00	80.29	79.48	80.07	82.91	83.77	86.98	85.91	88.56	89.56	88.72	86.44
24	82.06	80.26	79.63	79.77	83.22	84.06	87.02	85.91	88.24	89.61	88.46	86.37
25	81.98	80.20	79.59	79.55	83.42	83.92	87.03	85.86	88.06	89.59	88.59	86.28
26	82.08	80.35	79.75	79.49	83.41	83.76	86.91	85.96	87.97	89.59	88.74	86.11
27	82.40	80.46	79.88	79.28	83.14	83.54	86.75	86.23	88.06	89.60	88.92	85.98
28	82.39	80.28	79.86	79.22	82.90	83.40	86.67	86.46	88.12	89.50	89.01	85.99
29	82.28	---	79.87	79.36	82.91	83.64	86.58	86.33	88.07	89.14	88.95	85.95
30	82.39	---	79.96	79.57	82.97	84.14	86.51	86.30	87.86	88.94	89.08	85.77
31	82.25	---	80.13	---	82.75	---	86.54	86.34	---	89.03	---	85.52
MEAN	82.49	80.79	79.79	80.27	81.92	83.52	86.51	86.33	88.15	88.87	89.76	87.69

CAL YR 1982 MEAN 84.70 HIGH 79.22 LOW 90.67

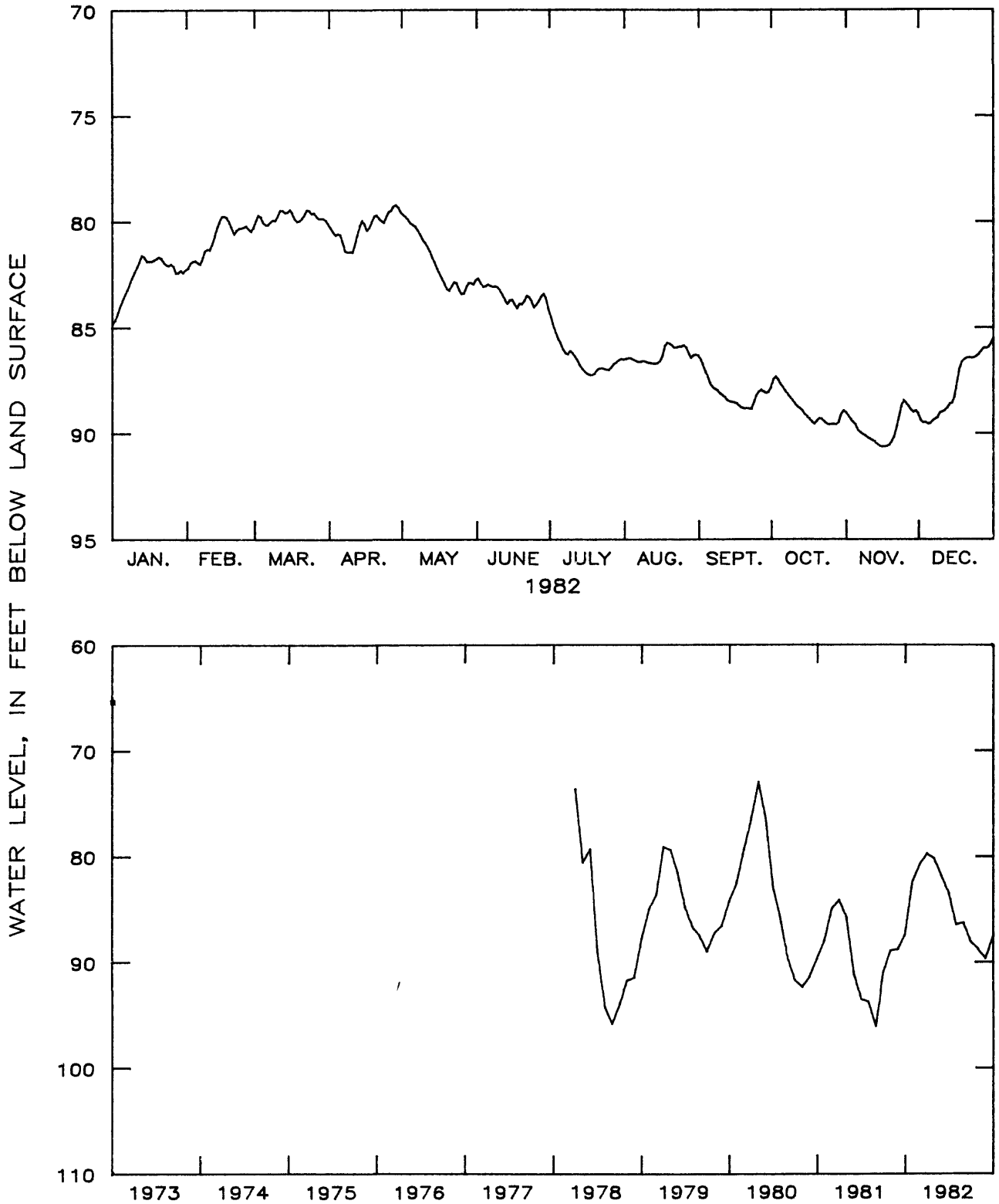

Figure 2.6–3.––Water level in observation well 12L019, Dougherty County.

13L011 TEST WELL 2 DOUGHERTY COUNTY

313105084064301 Local number, 13L011.
LOCATION.--Lat 31°31'05", long 84°06'43", Hydrologic Unit 03130008, about 6.5 mi southeast of Albany off U.S. Highway 19 on School Bus Road.
Owner: U.S. Geological Survey, test well 2.
AQUIFER.--Tallahatta.
WELL CHARACTERISTICS.--Drilled unused observation well, depth 418 ft, cased to 398 ft.
DATUM.--Altitude of land-surface datum is 195 ft.
Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.01 ft below land-surface datum, April 5, 1978; lowest, 95.00 ft below land-surface datum, August 9-11, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	83.89	81.66	78.58	78.75	78.97	82.96	83.98	82.49	79.64	78.30	79.57	78.66
2	83.75	81.46	78.45	78.85	79.02	82.89	84.02	82.43	79.98	78.33	79.64	78.55
3	83.55	81.29	78.26	79.00	79.03	82.85	84.11	82.48	80.26	78.59	79.69	78.49
4	83.55	81.43	78.12	79.19	78.98	82.82	84.16	82.62	80.31	78.71	79.83	78.50
5	83.63	81.50	78.06	79.29	78.99	82.84	84.17	82.67	80.21	78.73	79.83	78.51
6	83.61	81.38	78.10	79.44	79.11	82.89	84.18	82.67	79.98	78.98	79.89	78.44
7	83.49	81.26	78.09	79.60	79.18	82.92	84.17	82.49	79.72	79.14	79.90	78.35
8	83.37	80.91	78.00	79.56	79.18	82.90	84.09	82.21	79.57	79.16	79.87	78.21
9	83.36	80.53	77.87	79.39	79.19	82.91	83.72	82.08	79.49	79.24	79.79	78.02
10	83.40	80.28	77.93	79.36	79.22	82.96	83.72	81.93	79.44	79.27	79.84	77.87
11	83.40	80.12	78.15	79.41	79.39	83.07	83.44	81.65	79.40	79.15	79.84	77.65
12	83.35	80.11	78.39	79.46	79.60	83.23	83.13	81.20	79.38	79.13	79.71	77.42
13	83.23	80.17	78.40	79.48	79.77	83.35	83.49	80.78	79.41	79.25	79.71	77.35
14	83.14	80.24	78.12	79.56	79.97	83.38	83.37	80.52	79.41	79.39	79.72	77.15
15	83.12	80.27	77.85	79.68	80.21	83.38	83.52	80.35	79.24	79.49	79.65	76.88
16	83.10	80.18	77.71	79.88	80.48	83.45	83.52	80.23	78.93	79.56	79.56	76.70
17	83.11	79.95	77.66	80.04	80.73	83.61	83.45	80.11	78.69	79.64	79.41	76.65
18	83.12	79.94	77.64	80.19	81.00	83.74	83.29	80.10	78.59	79.73	79.14	76.79
19	83.12	79.94	77.65	80.18	81.25	83.68	82.87	80.29	78.51	79.74	78.93	76.78
20	83.09	79.93	77.68	79.96	81.45	83.42	82.53	80.56	78.35	79.70	78.93	76.68
21	83.09	79.80	77.78	79.76	81.65	83.12	82.41	80.59	78.21	79.60	79.06	76.55
22	83.14	79.65	77.86	79.68	81.86	82.90	82.38	80.30	78.17	79.52	79.11	76.46
23	82.98	79.51	77.80	79.63	82.08	83.04	82.39	79.97	78.07	79.46	79.22	76.46
24	82.75	79.41	77.63	79.50	82.25	83.38	82.47	79.79	78.08	79.41	79.32	76.46
25	82.49	79.43	77.60	79.15	82.37	83.75	82.42	79.73	78.13	79.38	79.41	76.44
26	82.32	79.43	77.81	78.78	82.54	83.97	82.21	79.71	78.04	79.37	79.38	76.38
27	82.30	79.08	78.12	78.71	82.69	84.09	82.18	79.80	78.11	79.37	79.19	76.18
28	82.25	78.73	78.36	78.76	82.77	84.15	82.19	79.80	78.23	79.34	78.95	76.02
29	82.02	---	78.49	78.84	82.88	84.07	82.28	79.71	78.28	79.34	78.77	75.84
30	81.78	---	78.63	78.92	82.99	84.00	82.43	79.63	78.33	79.47	78.75	75.79
31	81.69	---	78.73	---	83.05	---	82.51	79.55	---	79.54	---	75.75
MEAN	83.04	80.27	78.05	79.40	80.70	83.32	83.19	80.92	79.01	79.26	79.45	77.16

CAL YR 1982 MEAN 80.31 HIGH 75.75 LOW 84.18

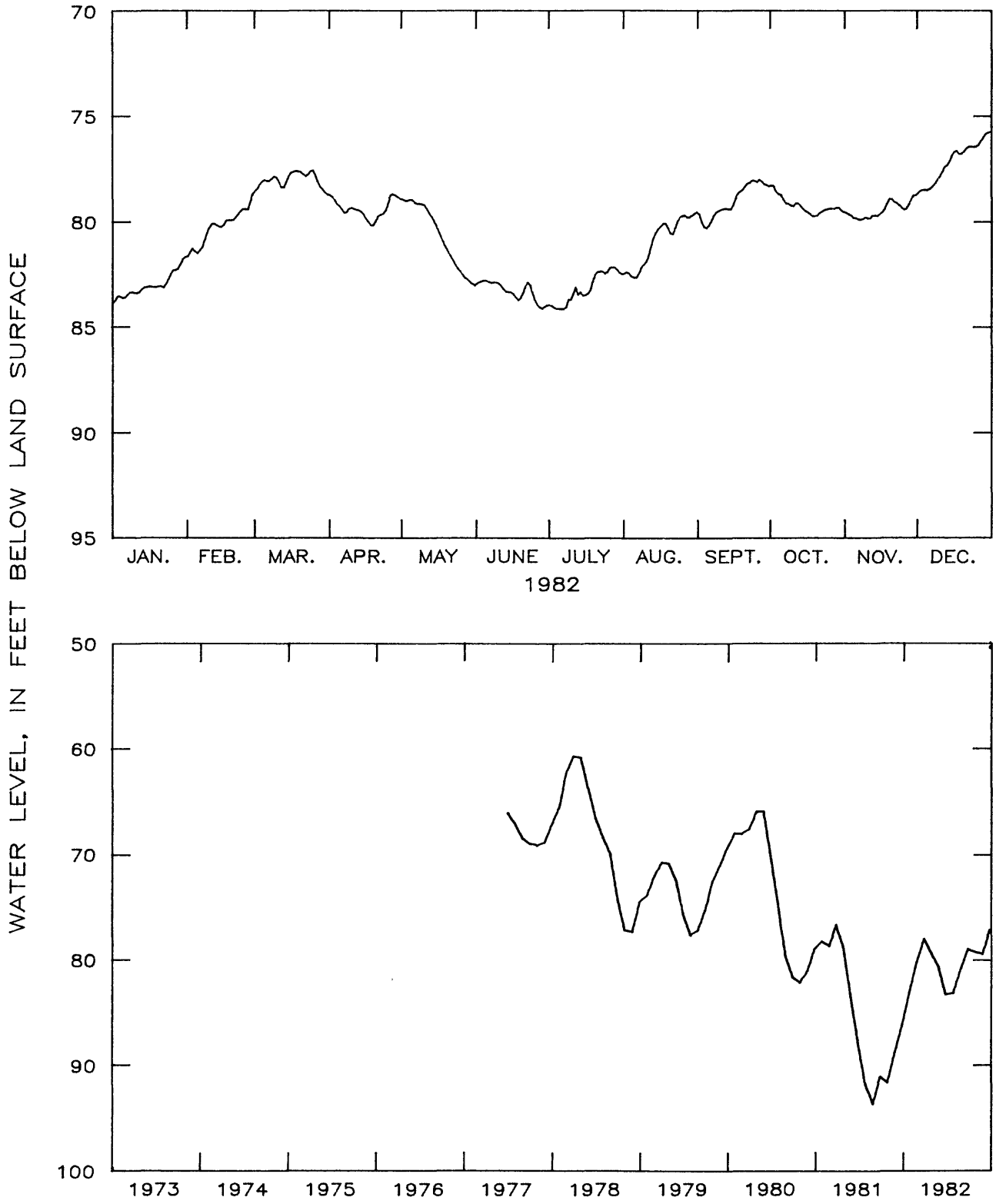

Figure 2.6—4.——Water level in observation well 13L011, Dougherty County.

2.7 Principal Artesian Aquifer

The principal artesian aquifer is one of the most productive ground-water reservoirs in the United States. About 600 Mgal/d is pumped from the aquifer in Georgia, mostly for industrial use and for irrigation (Pierce and Barber, 1981).

The aquifer underlies most of the Coastal Plain below the Fall Line and water is under artesian pressure except where the aquifer crops out at land surface. In some areas, the artesian pressure is sufficient to produce flowing wells.

In areas of outcrop, water levels in wells tapping the principal artesian aquifer fluctuate seasonally in response to recharge from precipitation. Where the aquifer is deeply buried, ground-water levels are responding to pumpage and the long-term fluctuations relating to recharge are less pronounced.

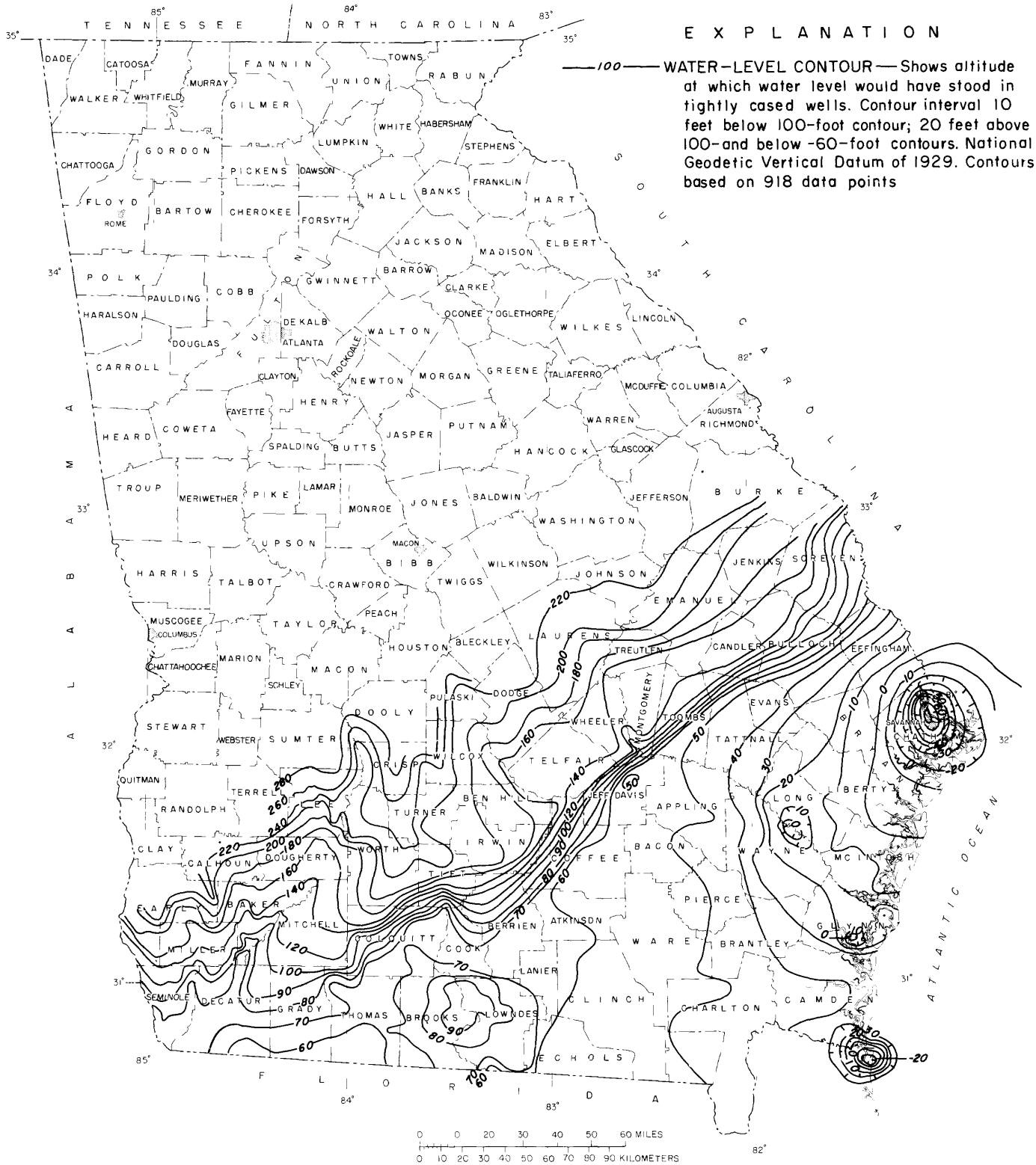

Figure 2.7–1.—Water level in the principal artesian aquifer, November 1982.

2.7.1 Southwest area

Ground-water levels in the principal artesian aquifer in southwest Georgia respond to variations in precipitation, evapotranspiration, stream stage, and pumpage. More than 90 percent of all ground water used for irrigation in this area comes from the principal artesian aquifer.

Water levels began declining in the late seventies due to below-normal precipitation and increased irrigation pumpage. Above-normal precipitation and a decrease in irrigation pumpage in 1982 enabled the water levels to recover from the record lows of 1981.

Mean annual water levels in the southwest area ranged from 1.3 to 9.5 feet higher in 1982 than in 1981, but remained below the mean for preceeding years.

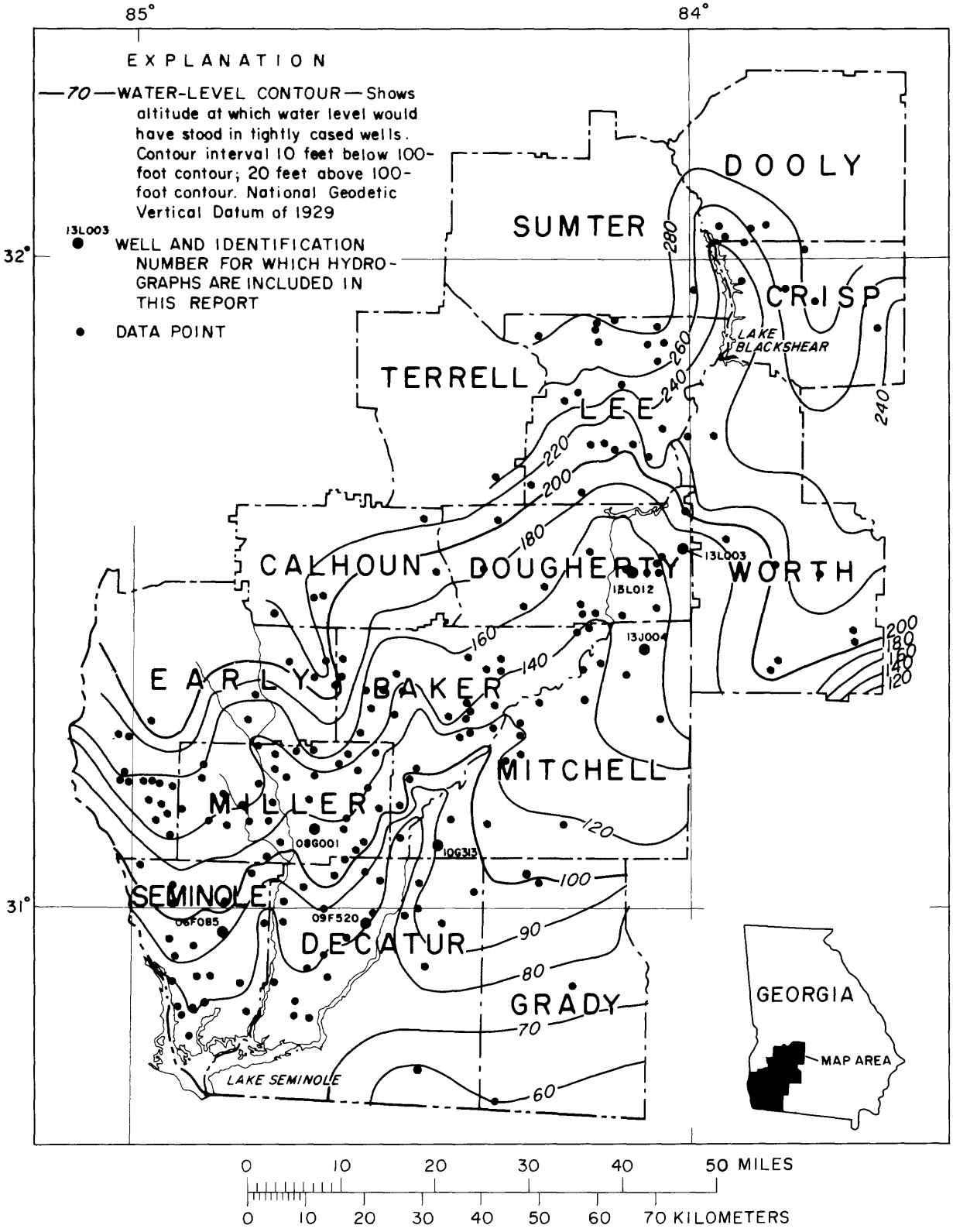

Figure 2.7.1—1.——Observation well locations and the water level in the principal artesian aquifer in the southwest area, November 1982.

13L003 ALBANY-DOUGHERTY COUNTY DOUGHERTY COUNTY

313748084002901 Local number, 13L003.
LOCATION.--Lat 31°33'09", long 84°00'19", Hydrologic Unit 03130008, near northeast corner of Marine Corps Supply Center, Acree, Ga.
Owner: City of Albany and Dougherty County.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused supply well, diameter 6 in., depth 259 ft, cased to 206 ft, open hole.
DATUM.--Altitude of land-surface datum is 225 ft.
Measuring point: Floor of recorder shelter, 4.10 ft above land-surface datum.
REMARKS.--Well pumped and sounded June 21, 1978; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted March 17, 1977.
PERIOD OF RECORD.--January 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.41 ft below land-surface datum, April 2, 1965; lowest, 44.89 ft below land-surface datum, December 13, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	43.25	40.63	36.34	36.68	35.58	36.91	36.25	34.02	35.45	36.75	37.88	38.37
2	43.00	40.49	36.29	36.68	35.50	36.89	36.29	33.93	35.48	36.76	37.88	38.37
3	42.80	40.36	36.25	36.67	35.43	36.84	36.25	33.86	35.50	36.80	37.91	38.33
4	42.65	40.02	36.26	36.81	35.56	36.65	36.21	33.89	35.53	36.85	37.91	38.30
5	41.64	39.60	36.32	36.67	35.73	36.39	36.29	33.93	35.59	36.95	37.93	38.29
6	41.58	39.16	36.28	36.77	35.82	36.23	36.36	33.93	35.67	37.04	37.93	38.38
7	41.36	38.81	36.36	36.84	35.84	36.17	36.43	33.94	35.72	36.98	37.89	38.43
8	41.23	38.39	36.62	36.58	35.87	36.09	36.47	33.97	35.74	36.99	37.91	38.47
9	41.01	37.76	36.55	36.45	35.98	36.10	36.51	34.05	35.80	37.00	37.94	38.38
10	41.04	37.75	36.33	36.48	36.09	36.10	36.52	34.08	35.86	37.03	37.98	38.33
11	41.02	37.78	36.18	36.42	36.17	36.17	36.52	34.02	35.83	37.11	37.98	38.11
12	40.96	37.70	36.14	36.44	36.24	36.22	36.52	33.92	35.87	37.13	37.99	38.07
13	40.77	37.50	36.20	36.41	36.33	36.21	36.53	33.91	35.88	37.14	38.11	38.12
14	40.76	37.30	36.22	36.42	36.40	36.23	36.55	33.93	35.87	37.22	38.08	37.98
15	40.91	37.02	36.28	36.48	36.44	36.25	36.52	33.97	35.90	37.15	38.15	37.98
16	40.75	36.70	36.36	36.53	36.48	36.33	36.34	34.02	35.95	37.18	38.15	37.72
17	40.73	36.48	36.42	36.53	36.56	36.29	35.94	34.03	36.02	37.35	38.13	37.54
18	40.57	36.43	36.44	36.58	36.63	36.32	35.55	34.07	36.03	37.35	38.14	37.34
19	40.49	36.20	36.33	36.54	36.73	36.35	35.36	34.17	36.08	37.35	38.16	37.17
20	40.55	35.87	36.38	36.54	36.73	36.39	35.24	34.22	36.14	37.35	38.13	37.22
21	40.48	35.68	36.43	36.55	36.79	36.45	35.20	34.19	36.22	37.40	38.12	37.32
22	40.48	35.82	36.52	36.57	36.83	36.45	35.14	34.24	36.32	37.41	38.11	37.45
23	40.37	35.92	36.53	36.59	36.82	36.37	35.09	34.33	36.40	37.49	38.13	37.50
24	40.43	36.01	36.52	36.44	36.83	36.35	35.04	34.41	36.41	37.52	38.23	37.54
25	40.42	36.17	36.55	36.21	36.75	36.42	34.98	34.50	36.40	37.57	38.31	37.62
26	40.55	36.32	36.63	35.86	36.74	36.42	34.90	34.62	36.44	37.63	38.27	37.64
27	40.63	36.18	36.73	35.61	36.78	36.37	34.86	34.95	36.56	37.69	38.25	37.67
28	40.58	36.27	36.77	35.54	36.78	36.32	34.69	35.13	36.65	37.71	38.20	37.64
29	40.57	---	36.74	35.64	36.80	36.20	34.54	35.24	36.70	37.76	38.27	36.35
30	40.43	---	36.67	35.68	36.81	36.21	34.27	35.32	36.75	37.81	38.33	35.93
31	40.42	---	36.67	---	36.87	---	34.15	35.36	---	37.86	---	35.57
MEAN	41.05	37.51	36.43	36.41	36.35	36.36	35.73	34.26	36.03	37.27	38.08	37.71

CAL YR 1982 MEAN 36.93 HIGH 33.86 LOW 43.25

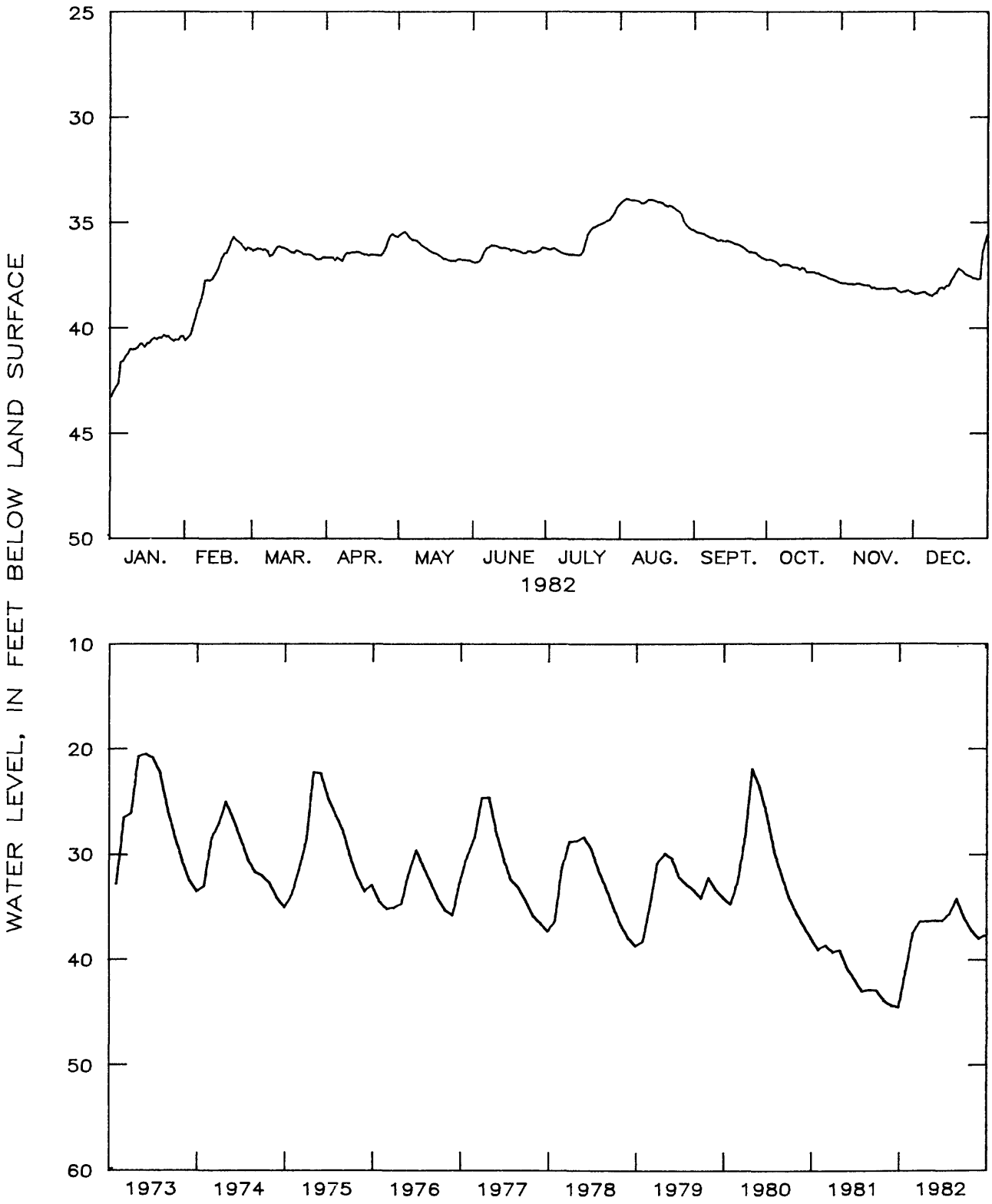

Figure 2.7.1—2.——Water level in observation well 13L003, Dougherty County.

13L012 TEST WELL 3 DOUGHERTY COUNTY

313105084064302 Local number, 13L012.
LOCATION.--Lat 31°31'05", long 84°06'43", Hydrologic Unit 03130008, about 6.5 mi southeast of Albany off U.S. Highway 19 on School Bus Road.
Owner: U.S. Geological Survey, test well 3.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused observation well, depth 218 ft, cased to 54 ft.
DATUM.--Altitude of land-surface datum is 195 ft.
Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, June 16-21 and December 14-31, were estimated.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.92 ft below land-surface datum, March 2, 1979; lowest, 48.18 ft below land-surface datum, July 1, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	41.03	42.69	40.34	42.31	38.12	41.48	42.78	40.00	43.84	43.97	44.18	43.19
2	40.87	42.49	40.47	42.28	38.04	41.54	42.78	40.23	43.96	43.98	44.24	43.04
3	40.84	41.31	40.71	42.35	37.71	41.57	42.80	40.14	43.62	43.99	44.13	42.89
4	40.24	39.13	40.55	42.38	39.93	41.09	42.83	40.59	43.42	44.04	43.29	42.84
5	36.64	37.07	40.64	42.36	40.44	41.02	42.91	40.86	43.37	44.16	43.16	42.77
6	36.23	34.70	40.87	42.18	40.99	41.14	43.31	41.18	43.37	44.19	43.28	42.74
7	36.04	34.10	40.40	41.70	41.39	41.84	43.56	41.39	43.48	44.06	43.21	42.74
8	36.61	32.82	40.52	40.45	41.42	42.14	43.57	41.65	43.48	44.06	43.27	42.68
9	37.11	32.18	40.72	39.47	41.52	42.37	43.50	41.90	43.61	44.02	43.31	42.64
10	37.20	33.07	39.85	39.98	41.68	42.66	43.39	41.78	43.63	44.01	43.34	42.29
11	38.21	34.82	39.81	40.29	41.45	42.94	43.37	41.35	43.31	44.05	43.37	41.65
12	39.63	35.89	39.94	41.02	41.38	43.10	43.27	41.14	43.07	43.95	43.44	41.14
13	39.53	35.16	40.30	41.54	41.61	42.93	43.16	41.30	42.88	43.90	43.54	41.21
14	39.75	36.03	40.68	41.69	41.87	42.98	43.10	41.39	42.89	43.85	43.45	41.08
15	40.00	36.23	41.31	41.94	41.83	42.93	42.96	41.68	43.15	43.36	43.45	40.84
16	40.26	36.76	41.39	42.09	41.95	42.97	42.15	41.60	43.23	43.37	43.45	40.04
17	40.53	36.08	41.51	42.12	42.00	42.97	40.75	41.82	43.24	43.59	43.39	38.72
18	40.72	35.13	41.13	42.17	42.07	43.19	40.88	42.03	43.25	43.29	43.24	37.74
19	41.24	34.53	41.27	41.99	42.12	43.02	41.10	42.07	43.30	43.30	43.13	37.47
20	41.49	35.42	41.45	41.49	42.18	43.01	41.57	42.05	43.39	43.43	43.11	38.15
21	41.38	35.70	41.56	41.27	42.46	42.99	41.98	42.15	43.52	43.46	43.12	38.98
22	41.70	35.97	41.74	41.21	42.12	42.60	42.17	42.25	43.66	43.52	43.12	40.23
23	41.62	37.48	41.78	40.99	42.00	42.08	42.20	42.41	43.80	43.58	43.10	40.64
24	41.87	38.33	41.86	40.81	41.73	42.26	41.77	42.48	43.85	43.68	43.16	41.06
25	42.06	38.82	41.73	39.44	41.34	42.62	41.66	42.93	43.85	43.71	43.20	41.39
26	42.12	39.58	41.73	36.28	41.16	42.70	41.41	43.06	43.87	43.78	43.25	41.46
27	42.39	39.80	41.88	35.32	41.02	42.40	41.73	43.31	43.98	43.93	43.25	41.84
28	42.48	40.05	42.12	36.50	41.00	42.71	41.99	43.58	43.96	43.96	43.26	41.23
29	42.26	---	42.13	38.44	41.21	42.69	41.18	43.59	43.98	44.05	43.30	39.14
30	42.45	---	42.18	38.51	41.31	42.74	39.57	43.61	44.01	44.02	43.27	37.92
31	42.71	---	42.25	---	41.46	---	39.81	43.74	---	44.08	---	37.41
MEAN	40.23	36.83	41.12	40.69	41.18	42.42	42.23	41.91	43.53	43.82	43.37	40.88

CAL YR 1982 MEAN 41.55 HIGH 32.18 LOW 44.24

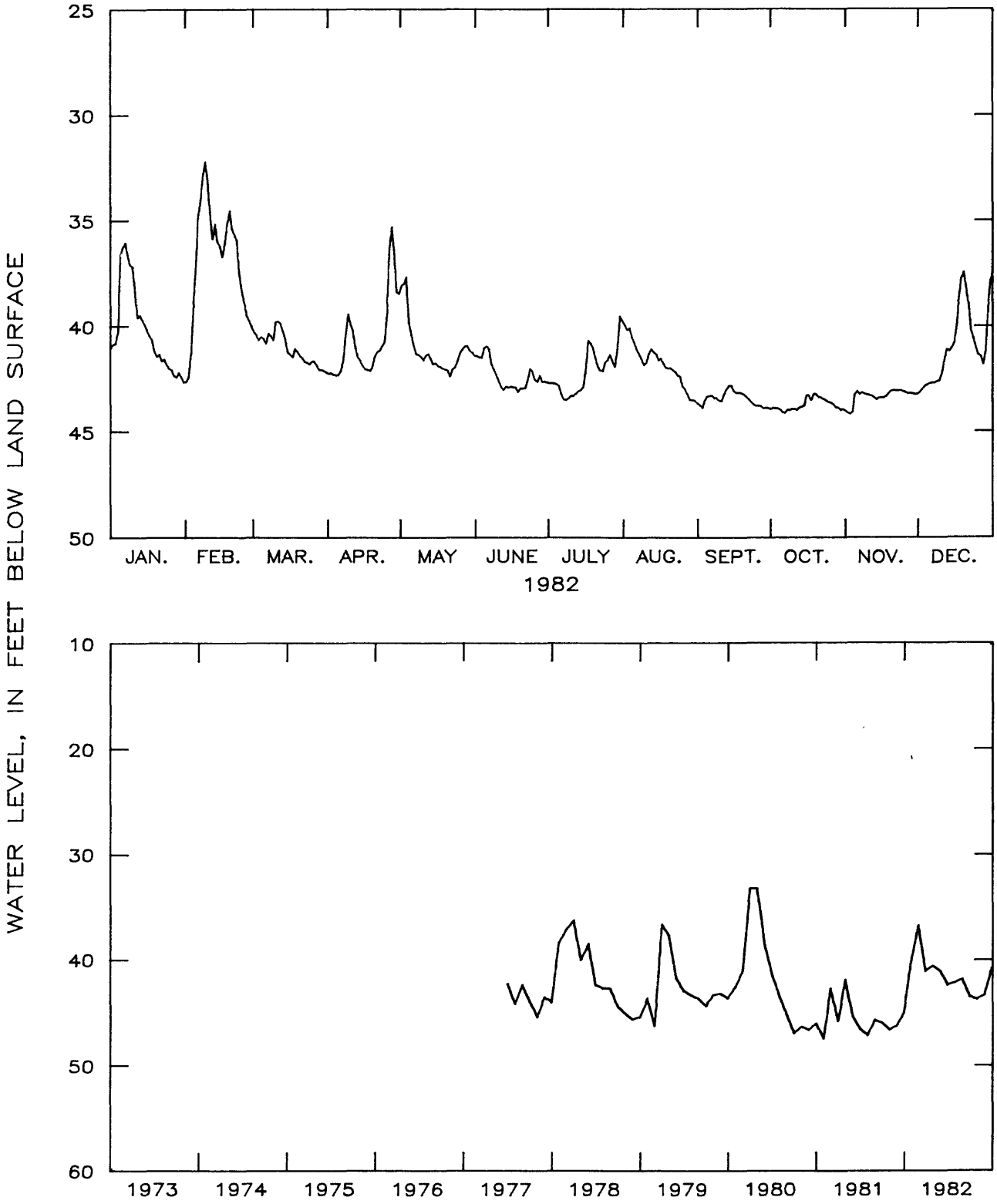

Figure 2.7.1—3.——Water level in observation well 13L012, Dougherty County.

13J004 WRIGHT MITCHELL COUNTY

312127084065801 Local number, 13J004.
LOCATION.--Lat 31°21'27", long 84°06'58", Hydrologic Unit 03130008, turn left at intersection of U.S. Highway 19 and State Highway 93, go 2.7 mi and turn right at red barn.
Owner: Henry Wright.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 12 in., depth 208 ft, cased to 77 ft, open hole.
DATUM.--Altitude of land-surface datum is 200 ft.
Measuring point: Top of front edge of shelter, 3.60 ft above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.90 ft below land-surface datum, April 13, 1980; lowest, 54.00 ft below land-surface datum, September 25, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	53.37	51.85	49.50	49.72	48.86	50.46	50.26	48.98	49.68	49.44	50.00	50.88
2	53.35	51.77	49.32	50.03	48.44	50.08	50.35	48.93	49.72	49.77	49.96	50.90
3	53.17	51.67	49.56	49.93	48.38	50.02	50.30	48.90	49.53	49.90	49.94	50.80
4	53.17	51.82	49.63	49.94	48.38	49.98	50.28	48.95	49.52	49.65	50.08	50.70
5	53.15	51.70	49.66	50.06	48.47	49.96	50.32	49.04	49.57	49.65	50.33	50.65
6	52.92	51.57	49.28	49.75	48.58	50.37	50.42	49.06	49.62	49.56	50.34	50.80
7	52.80	51.50	49.33	49.96	48.60	50.82	50.50	48.83	49.65	49.54	50.32	50.92
8	52.78	51.23	49.72	49.92	48.48	50.80	50.50	48.38	49.52	49.50	50.28	50.94
9	52.56	50.92	49.70	49.65	48.58	50.90	50.48	48.08	49.55	49.47	50.32	50.80
10	52.64	50.96	49.47	49.76	48.64	50.84	50.46	48.10	49.48	49.50	50.35	50.65
11	52.62	50.95	49.28	49.80	48.78	51.32	50.45	48.05	49.35	49.55	50.27	50.42
12	52.38	50.70	49.22	49.74	48.86	51.12	50.42	47.85	49.18	49.63	50.17	50.45
13	52.12	50.67	49.26	50.08	48.97	50.68	50.40	47.85	49.05	49.63	50.32	50.75
14	52.15	50.52	49.25	49.98	49.32	50.60	50.42	47.96	48.90	49.58	50.38	50.65
15	52.38	50.25	49.25	49.58	49.94	50.57	50.40	48.10	48.77	49.66	50.43	50.35
16	52.25	49.95	49.28	49.60	49.84	50.55	50.40	48.24	48.75	49.66	50.44	50.32
17	52.30	49.68	49.34	49.68	49.42	50.56	50.35	48.30	48.75	49.68	50.35	50.32
18	52.12	49.58	49.48	49.70	49.42	50.45	50.32	48.34	48.75	49.83	50.37	50.20
19	52.02	49.42	49.35	49.90	49.85	50.58	50.28	48.30	48.75	49.87	50.46	50.00
20	52.02	49.20	49.35	50.02	49.98	50.65	50.28	48.57	48.76	49.84	50.48	50.02
21	51.95	49.00	49.36	50.08	50.05	50.70	50.30	48.20	48.86	49.77	50.46	50.07
22	51.95	49.20	49.38	49.80	49.66	50.70	50.33	48.22	48.95	49.75	50.42	50.08
23	51.78	49.35	49.47	49.84	49.75	50.70	50.32	48.28	49.06	49.77	50.40	49.98
24	51.85	49.34	49.50	49.88	49.82	50.65	50.26	48.40	49.02	49.83	50.56	49.97
25	51.82	49.35	49.45	49.82	49.66	50.68	50.14	48.40	48.94	49.95	50.72	50.06
26	51.90	49.48	49.59	49.52	49.65	50.65	49.97	48.67	48.92	50.04	50.65	50.05
27	52.02	49.32	49.77	48.98	50.13	50.53	49.85	49.20	49.02	50.05	50.57	49.97
28	51.93	49.38	49.83	48.34	50.33	50.40	49.65	49.66	49.43	50.03	50.60	49.88
29	51.90	---	49.78	48.22	50.28	50.23	49.63	49.54	49.45	50.02	50.70	49.85
30	51.73	---	49.73	48.58	49.96	50.23	49.58	49.40	49.68	50.03	50.83	49.74
31	51.67	---	49.68	---	50.35	---	49.28	49.58	---	50.07	---	49.60
MEAN	52.35	50.37	49.48	49.66	49.34	50.56	50.22	48.59	49.21	49.75	50.38	50.35

CAL YR 1982 MEAN 50.02 HIGH 47.85 LOW 53.37

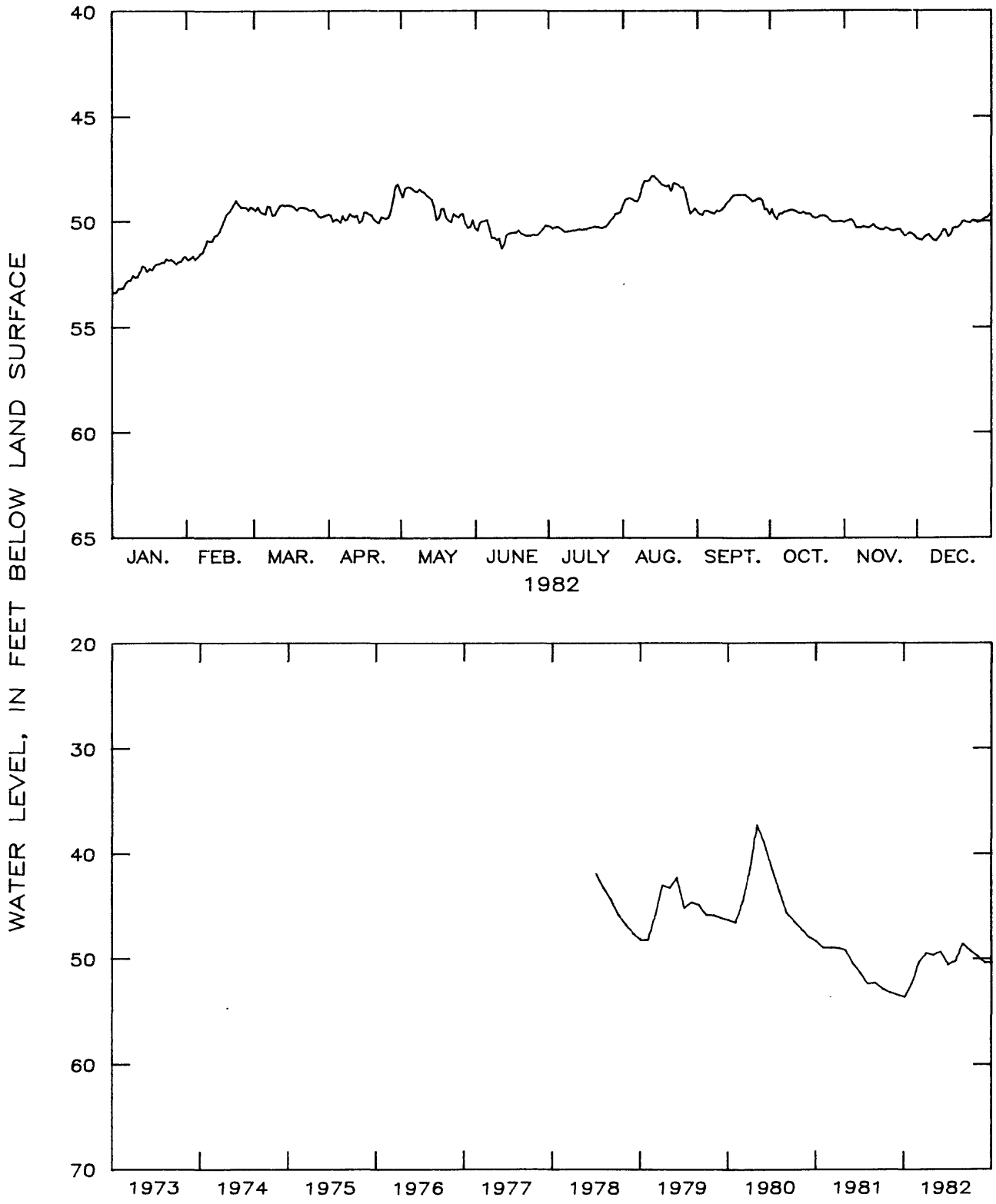

Figure 2.7.1—4.——Water level in observation well 13J004, Mitchell County.

10G313 MEINDERS MITCHELL COUNTY

310507084262201 Local number, 10G313.
LOCATION.--Lat 31°05'07", long 84°26'22", Hydrologic Unit 03130008, 1.95 mi west of Vada off of Decatur-Mitchell County line road, on right.
Owner: Harvey Meinders.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Cable-tooled unused observation well, diameter 12 in., depth 250 ft, cased to 87 ft, open hole.
DATUM.--Altitude of land-surface datum is 14.8 ft.
Measuring point: Floor of recorder shelter, 1.35 ft above land-surface datum.
REMARKS.--Water levels for period of missing recorder records, March 28-30, were estimated.
PERIOD OF RECORD.--November 1961 to September 1968; April 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.19 ft below land-surface datum, April 12, 1964; lowest, 60.26 ft below land-surface datum, January 1, 1982.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	60.26	57.73	55.25	54.72	53.83	53.33	53.81	53.68	53.36	53.46	54.29	55.15
2	60.20	57.64	55.16	54.71	53.74	53.34	53.83	53.65	53.38	53.47	54.31	55.17
3	60.12	57.64	55.10	54.73	53.65	53.36	53.81	53.64	53.42	53.50	54.33	55.18
4	60.12	57.63	55.06	54.76	53.60	53.36	53.81	53.65	53.45	53.53	54.40	55.19
5	60.03	57.56	55.04	54.69	53.54	53.42	53.84	53.64	53.49	53.57	54.44	55.23
6	59.93	57.52	54.95	54.80	53.49	53.48	53.88	53.60	53.51	53.60	54.45	55.28
7	59.87	57.46	55.04	54.79	53.41	53.53	53.90	53.58	53.52	53.60	54.48	55.32
8	59.78	57.35	55.04	54.72	53.39	53.54	53.92	53.55	53.53	53.62	54.51	55.35
9	59.61	57.27	54.98	54.78	53.34	53.57	53.92	53.53	53.55	53.64	54.54	55.35
10	59.56	57.24	54.91	54.79	53.30	53.60	53.93	53.51	53.55	53.68	54.57	55.35
11	59.42	57.15	54.88	54.78	53.27	53.66	53.94	53.47	53.56	53.71	54.58	55.31
12	59.24	57.02	54.86	54.76	53.24	53.72	53.95	53.44	53.58	53.72	54.60	55.41
13	59.08	56.97	54.85	54.72	53.22	53.75	53.97	53.42	53.57	53.73	54.67	55.44
14	59.07	56.84	54.81	54.71	53.23	53.77	53.98	53.40	53.55	53.77	54.67	55.36
15	58.96	56.71	54.79	54.71	53.22	53.82	54.01	53.40	53.51	53.79	54.72	55.28
16	58.81	56.55	54.77	54.72	53.21	53.87	54.02	53.39	53.51	53.84	54.73	55.30
17	58.72	56.45	54.76	54.71	53.21	53.87	54.03	53.37	53.52	53.88	54.75	55.32
18	58.57	56.40	54.75	54.71	53.23	53.82	54.05	53.35	53.52	53.91	54.78	55.31
19	58.47	56.24	54.72	54.68	53.23	53.82	54.05	53.35	53.50	53.92	54.82	55.26
20	58.39	56.08	54.71	54.70	53.22	53.80	54.07	53.31	53.49	53.93	54.85	55.28
21	58.29	55.96	54.71	54.72	53.22	53.80	54.10	53.25	53.47	53.96	54.87	55.28
22	58.22	55.91	54.71	54.72	53.21	53.79	54.11	53.22	53.48	53.99	54.88	55.26
23	58.10	55.78	54.69	54.72	53.21	53.80	54.11	53.22	53.46	54.02	54.92	55.20
24	58.09	55.65	54.69	54.68	53.21	53.82	54.09	53.22	53.41	54.05	54.98	55.18
25	57.99	55.57	54.70	54.61	53.20	53.84	54.02	53.19	53.38	54.08	55.02	55.18
26	57.99	55.48	54.75	54.50	53.21	53.84	53.93	53.19	53.37	54.11	55.02	55.18
27	57.92	55.37	54.75	54.32	53.23	53.84	53.85	53.18	53.42	54.16	55.03	55.12
28	57.86	55.34	54.74	54.17	53.24	53.80	53.80	53.20	53.43	54.18	55.03	55.09
29	57.81	---	54.74	54.06	53.25	53.79	53.77	53.24	53.45	54.21	55.08	55.10
30	57.74	---	54.73	53.94	53.28	53.79	53.76	53.27	53.46	54.26	55.12	55.04
31	57.71	---	54.72	---	53.32	---	53.71	53.32	---	54.28	---	55.01
MEAN	58.90	56.66	54.85	54.64	53.33	53.68	53.93	53.40	53.48	53.84	54.71	55.24

CAL YR 1982 MEAN 54.71 HIGH 53.18 LOW 60.26

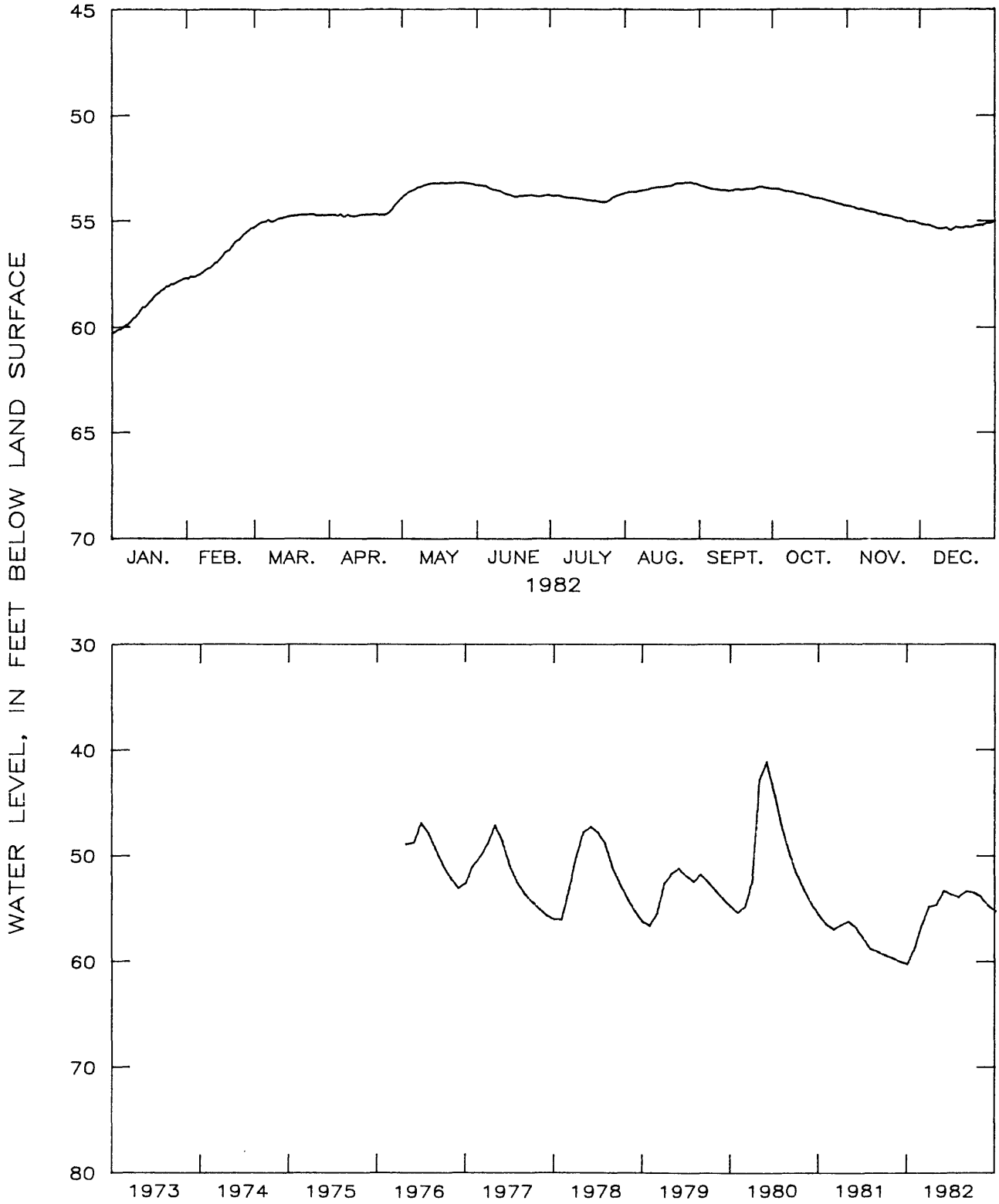

Figure 2.7.1—5.——Water level in observation well 10G313, Mitchell County.

09F520 BOLTON DECATUR COUNTY

305736084355801 Local number, 09F520.
LOCATION.--Lat 30°57'40", long 84°35'46", Hydrologic Unit 03130008, U.S. Highway 27 north of Bainbridge, right on dirt road near John Deere tractor dealership.
Owner: Graham Bolton.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Unused private irrigation well, diameter 12 in., depth 251 ft, cased to 130 ft, open hole.
DATUM.--Altitude of land-surface datum is 128 ft.
Measuring point: Floor of recorder shelter, 3.50 ft above land-surface datum.
REMARKS.--This well is about 15 ft from pumped well. Water levels for period of missing recorder record, May 17 to June 6, were estimated.
PERIOD OF RECORD.--June 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.75 ft below land-surface datum, April 24, 1975; lowest, 54.78 ft below land-surface datum, August 20, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	50.18	47.92	45.97	46.34	45.70	46.24	46.57	43.97	44.08	44.88	45.81	46.69
2	50.06	47.89	45.94	46.35	45.64	46.31	46.57	43.82	44.88	44.89	45.83	46.72
3	49.93	47.89	45.93	46.38	45.60	46.32	46.55	43.70	44.23	44.93	45.86	46.73
4	49.85	47.89	45.94	46.41	47.32	46.34	46.54	43.62	44.23	44.95	45.92	46.73
5	49.73	47.83	45.97	46.38	47.36	46.35	46.80	43.56	44.26	44.99	45.97	46.75
6	49.53	47.75	45.93	46.48	45.71	46.40	46.60	43.50	44.29	45.03	45.99	46.79
7	49.37	47.63	46.02	46.50	45.67	46.41	46.60	43.46	44.32	45.03	46.01	46.81
8	49.22	47.46	46.09	46.44	45.66	46.49	46.64	43.42	44.35	45.04	46.03	46.82
9	49.03	47.29	46.07	46.49	45.63	46.53	46.65	43.41	44.38	45.06	46.06	46.81
10	48.93	47.16	46.01	46.49	45.62	46.56	46.68	43.40	44.41	45.09	46.09	46.79
11	48.80	47.01	45.98	46.48	45.67	46.62	46.71	43.38	44.45	45.13	46.10	46.74
12	48.65	46.84	45.95	46.47	47.51	46.67	46.73	43.36	44.49	45.15	46.12	46.79
13	48.52	46.76	45.95	46.46	47.43	46.67	46.76	43.35	44.52	45.17	46.17	46.82
14	48.50	46.67	45.94	46.47	45.89	46.66	46.78	43.33	44.54	45.21	46.18	46.79
15	48.44	46.57	45.93	46.50	45.90	46.71	46.79	43.34	44.56	45.22	46.23	46.72
16	48.37	46.48	45.96	46.53	45.97	46.77	46.79	43.34	44.59	45.26	46.24	46.73
17	48.33	46.40	45.99	46.55	45.91	46.78	46.77	43.34	44.63	45.30	46.27	46.72
18	48.25	46.39	46.03	46.59	45.90	46.77	46.71	43.35	44.66	45.34	46.31	46.68
19	48.20	46.32	46.03	46.59	45.91	46.80	46.66	43.40	44.67	45.36	46.34	46.62
20	48.15	46.21	46.08	46.63	45.93	46.81	46.62	43.44	44.66	45.39	46.37	46.59
21	48.11	46.10	46.08	46.66	45.94	46.84	46.59	43.44	44.67	45.42	46.39	46.57
22	48.08	46.06	46.10	46.67	45.96	46.86	46.55	43.46	44.70	45.46	46.62	46.55
23	48.02	46.00	46.11	46.67	45.97	46.87	46.45	43.50	44.71	45.50	46.45	46.54
24	48.02	45.95	46.12	46.64	45.99	46.88	45.96	43.54	44.70	45.52	46.52	46.55
25	47.97	45.94	46.15	46.57	46.01	46.89	45.54	43.57	44.69	45.56	46.55	46.58
26	47.99	45.94	46.21	46.37	46.03	46.89	45.31	43.61	44.71	45.60	46.57	46.60
27	47.96	45.92	46.24	46.16	46.07	46.80	45.17	43.65	44.77	45.66	46.58	46.61
28	47.94	45.96	46.27	45.98	46.13	46.68	45.06	47.03	44.81	45.69	46.59	46.63
29	47.92	---	46.27	45.86	46.18	46.61	44.93	48.96	44.84	45.72	46.63	46.66
30	47.88	---	46.29	45.77	46.20	46.58	44.59	44.26	44.87	45.76	46.66	46.65
31	47.87	---	46.32	---	46.18	---	44.20	44.06	---	45.79	---	46.59
MEAN	48.64	46.79	46.06	46.43	46.08	46.64	46.25	43.82	44.56	45.29	46.25	46.69

CAL YR 1982 MEAN 46.12 HIGH 43.33 LOW 50.18

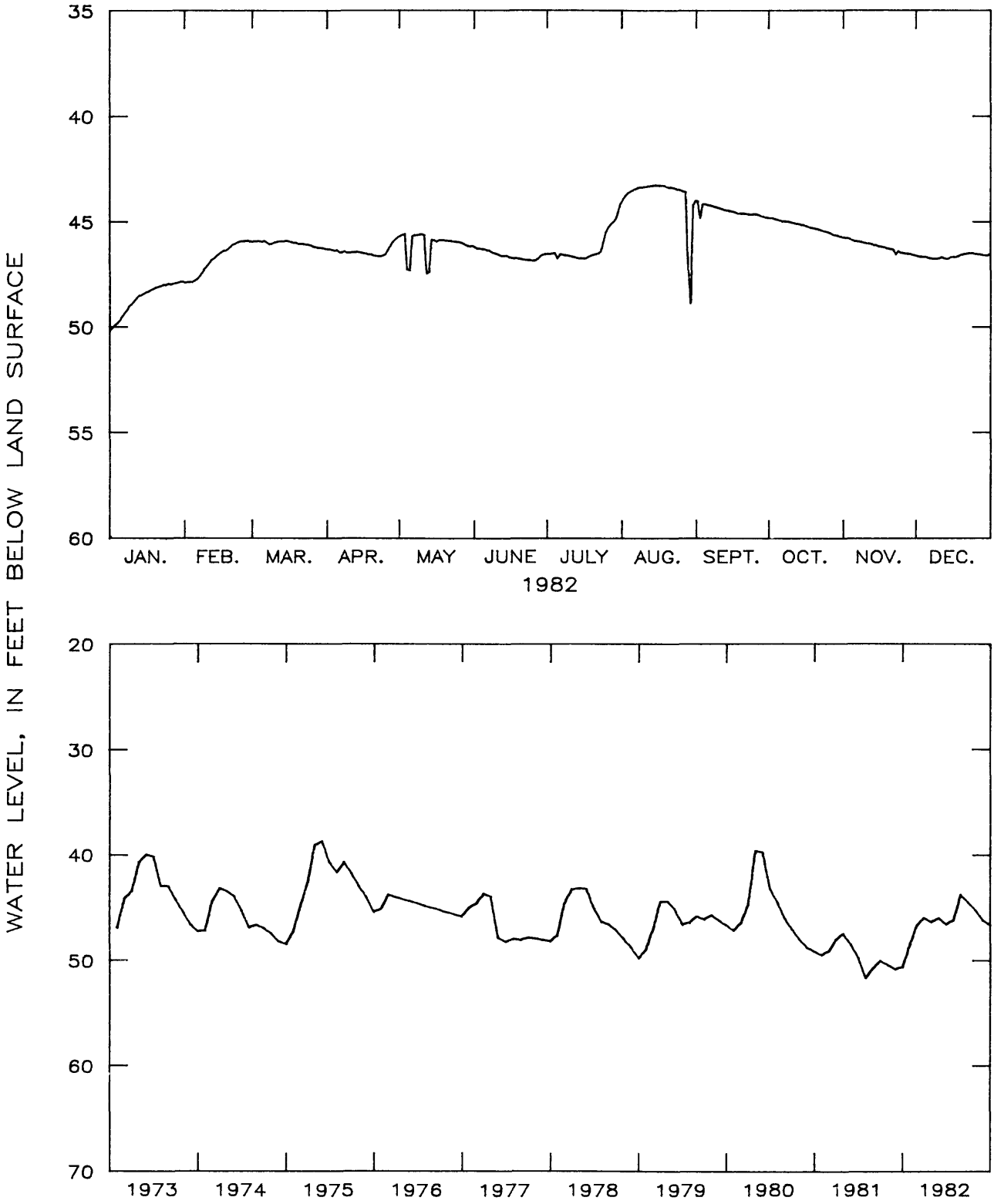

Figure 2.7.1—6.——Water level in observation well 09F520, Decatur County.

08G001 FLEET MILLER COUNTY

310651084404501 Local number, 08G001.
LOCATION.--Lat 31°06'51", long 84°40'45", Hydrologic Unit 03130010, 1 mi northeast of Boykin, Ga.
Owner: Jack Fleet.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 12 in., depth 255 ft, cased to 130 ft, open hole.
DATUM.--Altitude of land-surface datum is 150 ft.
Measuring point: Top front edge of recorder shelter, 3.0 ft above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--February 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.20 ft below land-surface datum, March 17, 1978; lowest, 43.88 ft below land-surface datum, July 17, 1981.

Water level, in feet below land surface, through calendar year 1982 dsily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	42.66	31.90	25.43	30.72	26.28	31.40	35.00	32.55	26.05	30.28	34.32	35.98
2	42.30	32.15	25.76	30.50	26.12	31.76	35.08	32.28	26.60	30.50	34.38	36.03
3	41.75	32.23	26.02	30.53	26.13	31.85	35.10	32.12	27.20	30.20	34.43	36.03
4	41.15	31.85	26.33	30.68	26.28	31.87	35.08	32.05	27.84	30.35	34.56	36.03
5	40.48	30.95	26.74	30.55	26.62	32.53	35.10	32.13	27.80	30.63	34.73	36.05
6	39.65	30.07	27.00	30.72	27.07	33.15	35.18	32.12	27.75	30.86	34.72	35.76
7	38.68	29.24	27.40	30.85	27.40	33.16	35.24	32.12	27.95	30.92	34.73	35.32
8	35.78	28.35	28.03	30.64	27.23	33.68	35.27	32.13	28.70	30.98	34.75	34.95
9	32.07	27.68	28.22	30.62	27.37	33.57	35.33	32.05	29.15	31.14	34.80	34.48
10	30.25	27.56	28.23	30.60	27.55	34.38	35.35	31.28	29.50	31.30	34.86	34.04
11	29.68	27.55	28.28	30.50	27.74	35.91	35.38	30.25	29.76	31.50	34.86	33.40
12	29.64	27.45	28.40	30.48	27.98	36.70	35.36	29.56	29.90	32.06	34.88	32.00
13	29.73	27.27	28.60	30.34	28.22	36.07	35.40	29.11	30.32	32.33	35.02	29.62
14	30.12	26.88	28.74	30.32	28.75	35.30	35.38	28.85	30.70	32.14	35.07	27.23
15	29.93	26.37	28.88	30.37	29.10	35.80	35.45	28.78	30.48	32.20	35.17	25.62
16	28.92	25.83	29.05	30.70	29.12	36.55	35.48	28.80	30.10	32.34	35.22	24.94
17	27.90	25.11	29.22	31.33	29.38	36.56	35.50	28.82	29.92	32.54	35.20	24.80
18	27.18	24.40	29.45	31.10	29.70	35.83	35.52	27.90	29.92	32.68	35.30	24.83
19	27.00	23.84	29.58	30.92	30.05	35.40	35.50	26.15	30.12	32.80	35.57	24.87
20	27.20	23.25	29.67	30.96	30.18	35.34	35.45	24.30	30.24	32.94	35.58	25.12
21	27.54	22.84	29.88	31.04	30.15	35.33	35.40	22.78	30.30	33.08	35.53	25.40
22	27.96	22.98	30.10	30.97	30.15	35.33	35.33	22.08	30.05	33.27	35.65	25.73
23	28.34	23.22	30.96	30.96	30.16	35.50	35.28	21.97	29.88	33.35	35.68	25.94
24	28.75	23.46	31.50	30.85	30.22	35.53	35.18	22.14	29.85	33.44	35.77	26.20
25	29.15	23.85	30.90	30.62	30.24	35.35	34.98	22.45	29.68	33.58	35.84	26.57
26	29.70	24.25	30.73	29.86	30.34	35.35	34.70	22.87	29.50	33.77	35.82	26.86
27	30.22	24.57	30.47	28.73	30.55	35.35	34.41	23.35	29.25	33.94	35.80	27.10
28	30.56	25.00	30.44	27.77	30.65	35.22	34.10	23.87	29.40	34.04	35.74	27.28
29	30.90	---	30.36	27.00	31.48	35.07	33.75	24.45	29.94	34.08	35.81	26.92
30	31.13	---	30.30	26.57	31.72	34.98	33.35	25.00	29.72	34.16	35.93	25.14
31	31.42	---	30.80	---	31.25	---	32.93	25.54	---	34.26	---	22.44
MEAN	32.19	26.79	28.89	30.26	28.88	34.66	35.02	27.74	29.25	32.31	35.19	29.44

CAL YR 1982 MEAN 30.90 HIGH 21.97 LOW 42.66

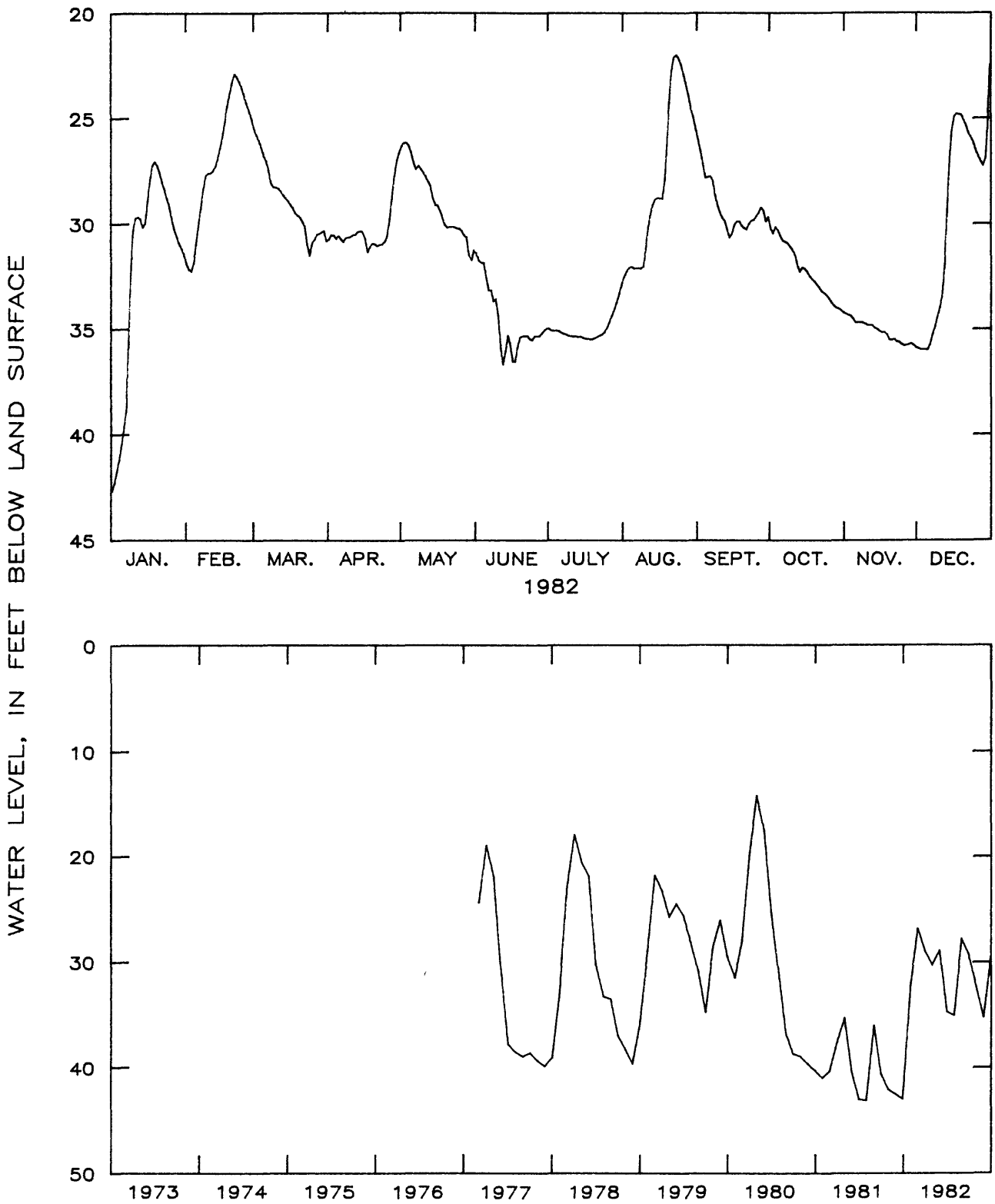

Figure 2.7.1–7.––Water level in observation well 08G001, Miller County.

06F085 SPOONER SEMINOLE COUNTY

305648084555901 Local number, 06F085.
LOCATION.--Lat 30°56'48", long 84°55'59", Hydrologic Unit 03130004, go 4.2 mi south from Donalsonville on State Highway 39, turn right on State Highway 235 to 2nd road on left. Recorder is about 450 ft from center pivot at old pond site.
Owner: J. P. Spooner, Jr.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 225 ft, cased to 118 ft, open hole.
DATUM.--Altitude of land-surface datum is 135 ft.
Measuring point: Top of front edge of shelter, 3.50 ft above land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, September 29 to October 26 and December 12-31, were estimated.
PERIOD OF RECORD.--February 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.27 ft below land-surface datum, April 13, 1980; lowest, 48.82 ft below land-surface datum, October 10, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	47.61	44.22	40.20	39.94	39.57	40.05	43.02	40.40	31.07	33.75	37.38	39.68
2	47.43	44.14	40.07	39.85	39.47	40.13	42.20	40.00	31.07	33.94	37.40	39.77
3	47.25	43.90	39.92	39.81	39.36	40.20	41.90	39.75	31.15	33.78	37.49	39.80
4	47.06	43.70	39.81	39.89	40.31	40.17	41.93	39.50	31.32	33.92	37.76	39.73
5	46.06	43.53	39.87	39.73	40.76	40.00	41.95	39.12	31.47	34.14	38.06	39.53
6	46.72	43.43	39.82	39.88	40.11	40.21	41.90	38.70	31.57	34.33	38.16	39.37
7	46.59	43.36	39.91	40.14	39.99	40.25	41.82	38.43	31.58	34.42	38.18	39.42
8	46.59	43.04	40.19	39.98	39.95	40.52	41.75	38.02	31.68	34.50	38.21	39.38
9	46.40	42.66	40.21	40.02	39.95	40.40	41.60	37.68	31.75	34.64	38.28	39.22
10	46.42	42.61	40.01	40.22	39.86	40.63	41.60	37.25	31.82	34.79	38.37	39.03
11	46.43	42.58	39.84	40.25	39.81	40.70	41.55	36.90	31.87	34.96	38.33	38.64
12	46.18	42.40	39.74	40.34	39.94	40.80	41.40	36.50	31.93	35.36	38.28	37.75
13	45.70	42.31	39.72	40.25	39.78	40.76	41.35	36.12	31.99	35.58	38.32	36.23
14	45.60	42.23	39.68	40.23	39.85	40.70	41.30	35.85	32.04	35.50	38.41	34.70
15	45.63	42.05	39.61	40.30	40.12	40.80	41.28	35.40	32.13	35.58	38.37	33.68
16	45.46	41.70	39.62	40.40	39.99	40.80	41.25	34.94	32.18	35.71	38.38	33.26
17	45.44	41.24	39.67	40.50	39.90	40.76	41.15	34.52	32.25	35.88	38.47	33.20
18	45.25	41.05	39.76	40.56	39.88	40.85	41.13	34.30	32.27	36.01	38.74	33.24
19	45.08	41.03	39.69	40.62	39.95	41.00	41.10	33.91	32.36	36.14	39.01	33.30
20	44.97	40.76	39.69	40.70	40.09	41.12	41.20	33.53	32.38	36.27	39.07	33.48
21	44.86	40.43	39.79	40.47	40.18	41.03	41.25	33.00	32.47	36.40	39.16	33.69
22	44.74	40.45	39.85	41.14	40.25	41.10	41.17	32.72	32.58	36.57	39.17	33.92
23	44.58	40.53	39.78	41.00	40.30	41.17	41.10	32.50	32.63	36.66	39.14	34.09
24	44.56	40.41	39.71	40.31	40.31	41.25	41.00	32.00	32.78	36.76	39.37	34.28
25	44.45	40.30	39.93	39.99	40.00	41.30	41.05	31.63	32.83	36.90	39.56	34.55
26	44.54	40.32	40.52	39.74	39.76	41.40	40.95	31.40	32.90	37.06	39.58	34.76
27	44.54	40.15	40.98	39.60	39.63	41.32	40.90	31.42	33.03	37.21	39.47	34.95
28	44.46	40.18	40.29	39.71	39.65	41.40	40.80	31.25	33.05	37.28	39.37	35.08
29	44.40	---	40.09	39.72	39.72	41.49	40.65	31.20	33.44	37.28	39.43	34.88
30	44.23	---	39.99	39.64	39.85	42.07	40.52	31.10	33.34	37.33	39.57	33.74
31	44.06	---	39.95	---	39.95	---	40.48	31.00	---	37.42	---	32.02
MEAN	45.59	41.95	39.93	40.16	39.94	40.81	41.36	35.16	32.16	35.68	38.62	36.08

CAL YR 1982 MEAN 38.94 HIGH 31.00 LOW 47.61

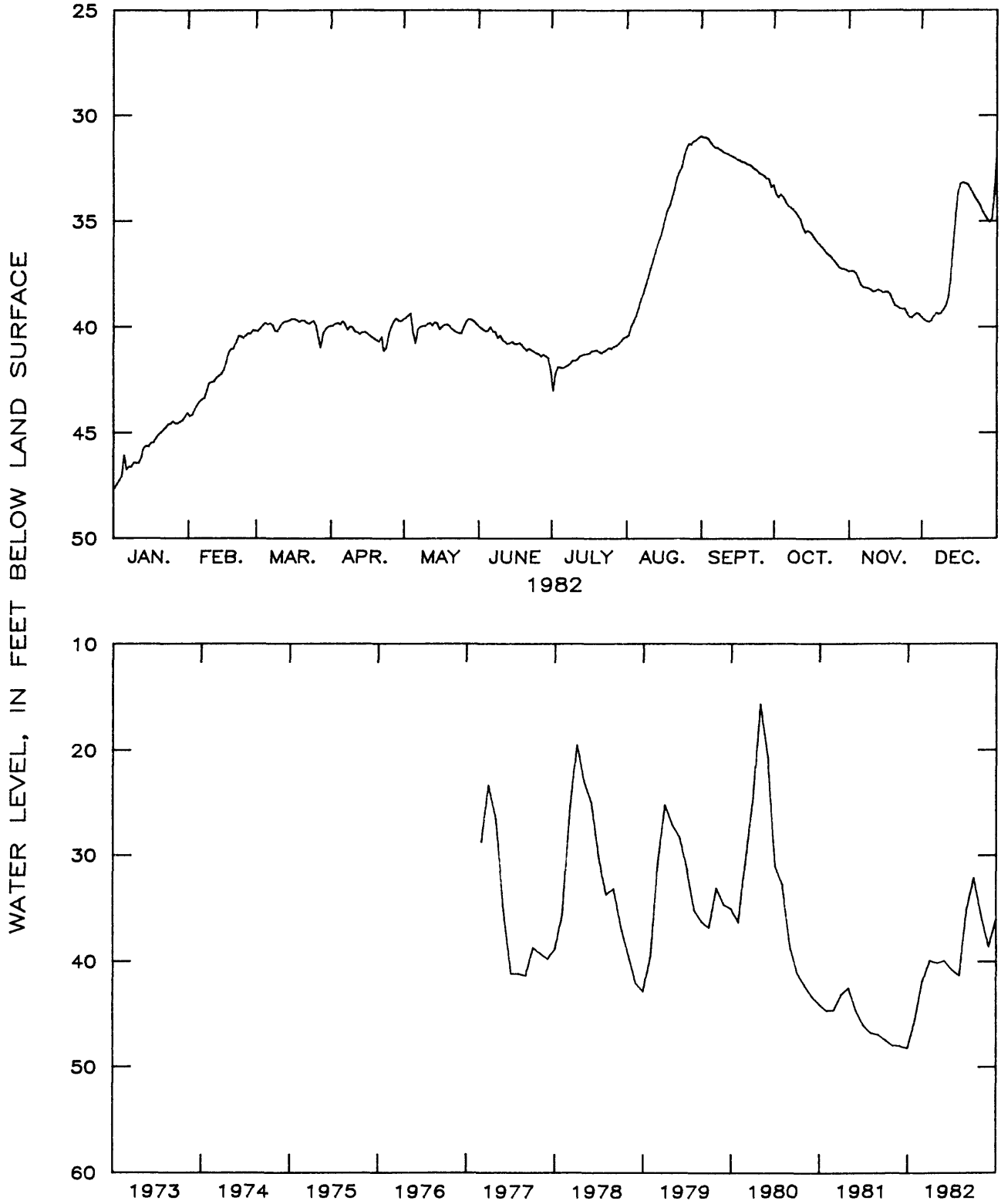

Figure 2.7.1—8.——Water level in observation well 06F085, Seminole County.

2.7.2 South-central area

Ground-water levels in the principal artesian aquifer in south-central Georgia are affected by precipitation, recharge, and pumpage. Water levels in Worth, Tift, and Cook Counties began to decline in 1977 due to increased irrigation pumping. The decline accelerated during the 1980-81 drought. Irrigation pumpage decreased in 1982 and water levels began to recover.

Ground-water levels in the Valdosta area are controlled mainly by local recharge. The highest water levels are north of the city, where the principal artesian aquifer receives recharge from the Withlacoochee River. The river flows into sinkholes and solution openings in the aquifer and water levels respond to this streamflow. Increased precipitation and streamflow in winter and early spring cause high ground-water levels. Decreased precipitation and increased evapotranspiration in summer and autumn result in low streamflow and correspondingly low ground-water levels.

Mean annual water levels in the south-central area ranged from 10 feet higher to 1 foot lower than in 1981.

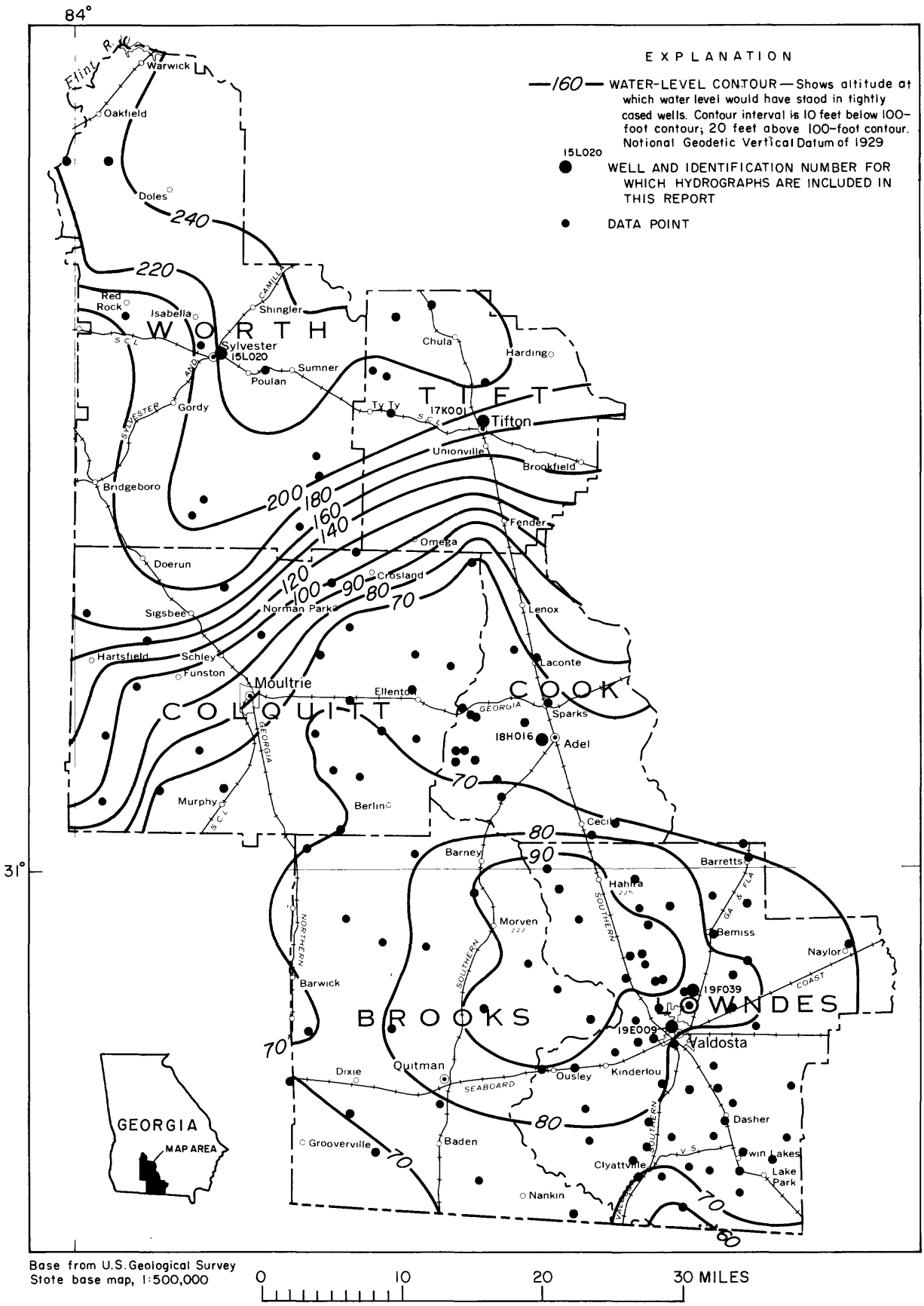

Figure 2.7.2—1.——Observation well locations and the water level in the principal artesian aquifer in the south—central area, November 1982.

15L020 SYLVESTER WORTH COUNTY

313146083491601 Local number, 15L020.
LOCATION.—Lat 31°31'46", long 83°49'16", Hydrologic Unit 03110204, near water tank, behind VFW on U.S. Highway 82 east, Sylvester, Ga.
Owner: City of Sylvester.
AQUIFER.—Principal artesian aquifer.
WELL CHARACTERISTICS.—Drilled unused municipal well, diameter 18 in., depth 450 ft, cased to 212 ft, open hole.
DATUM.—Altitude of land-surface datum is 433 ft.
Measuring point: Floor of recorder shelter, 2.90 ft above land-surface datum.
REMARKS.—Well pumped and sounded July 19, 1978. Borehole geophysical survey conducted June 5, 1975. Water levels for periods of missing recorder record, March 9 and April 1-25, were estimated.
PERIOD OF RECORD.—May 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 191.50 ft below land-surface datum, May 17, 1973; lowest, 201.59 ft below land surface datum, July 31, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	199.14	199.13	198.75	198.51	198.24	198.41	198.61	198.55	198.65	198.74	198.98	198.78
2	199.25	199.08	198.65	198.57	198.21	198.47	198.71	198.56	198.58	198.68	198.86	198.82
3	199.15	198.88	198.47	198.36	198.19	198.51	198.70	198.55	198.57	198.71	198.76	198.80
4	199.07	199.01	198.35	198.27	198.20	198.53	198.63	198.59	198.62	198.74	198.73	198.70
5	199.29	199.07	198.32	198.20	198.27	198.48	198.62	198.63	198.72	198.81	198.99	198.59
6	199.19	199.05	198.20	198.16	198.31	198.55	198.69	198.66	198.79	198.88	199.05	198.73
7	199.15	199.12	198.22	198.39	198.24	198.59	198.72	198.66	198.78	198.83	199.05	198.89
8	199.20	199.04	198.53	198.14	198.16	198.59	198.71	198.62	198.76	198.75	199.02	198.99
9	199.06	198.79	198.65	197.93	198.22	198.58	198.66	198.61	198.76	198.70	199.02	198.94
10	199.15	198.87	198.56	197.86	198.25	198.57	198.63	198.03	198.71	198.70	199.05	198.84
11	199.30	198.94	198.48	197.76	198.28	198.61	198.62	198.63	198.69	198.78	198.99	198.52
12	199.22	198.92	198.40	197.89	198.31	198.68	198.61	198.58	198.81	198.82	198.85	198.46
13	198.92	198.92	198.42	198.06	198.37	198.71	198.62	198.51	198.90	198.77	198.92	198.80
14	198.85	199.01	198.42	198.07	198.39	198.77	198.64	198.48	198.88	198.79	198.93	198.88
15	199.21	198.91	198.39	198.17	198.43	198.75	198.72	198.50	198.76	198.79	198.94	198.74
16	199.26	198.70	198.38	198.27	198.45	198.72	198.75	198.52	198.69	198.77	198.98	198.67
17	199.40	198.47	198.38	198.28	198.46	198.67	198.71	198.48	198.71	198.91	198.88	198.71
18	199.37	198.64	198.38	198.19	198.48	198.53	198.64	198.44	198.68	198.99	198.83	198.72
19	199.29	198.76	198.44	198.05	198.54	198.58	198.60	198.51	198.63	198.98	198.87	198.57
20	199.30	198.68	198.34	198.05	198.56	198.60	198.58	198.57	198.63	198.91	198.88	198.62
21	199.24	198.48	198.28	198.08	198.51	198.63	198.59	198.50	198.65	198.85	198.86	198.70
22	199.28	198.62	198.24	198.03	198.47	198.62	198.59	198.46	198.73	198.85	198.78	198.78
23	199.10	198.77	198.30	198.02	198.43	198.63	198.58	198.50	198.80	198.86	198.71	198.76
24	199.11	198.73	198.26	198.14	198.40	198.62	198.63	198.52	198.74	198.87	198.81	198.71
25	199.10	198.72	198.17	198.10	198.38	198.66	198.75	198.47	198.60	198.90	199.02	198.80
26	199.15	198.85	198.18	197.95	198.39	198.68	198.72	198.47	198.51	198.98	199.02	198.80
27	199.30	198.68	198.28	197.96	198.44	198.68	198.62	193.47	198.62	199.07	198.90	198.74
28	199.29	198.72	198.49	198.04	198.45	198.62	198.56	198.49	198.72	199.09	198.73	198.64
29	199.30	---	198.52	198.14	198.44	198.56	198.56	198.59	198.77	199.09	198.64	198.58
30	199.18	---	198.42	198.21	198.42	198.55	198.62	198.70	198.78	199.12	198.74	198.65
31	198.95	---	198.35	---	198.42	---	198.61	198.71	---	199.11	---	198.72
MEAN	199.19	198.84	198.39	198.13	198.36	198.61	198.65	198.55	198.71	198.87	198.89	198.73

CAL YR 1982 MEAN 198.66 HIGH 197.76 LOW 199.40

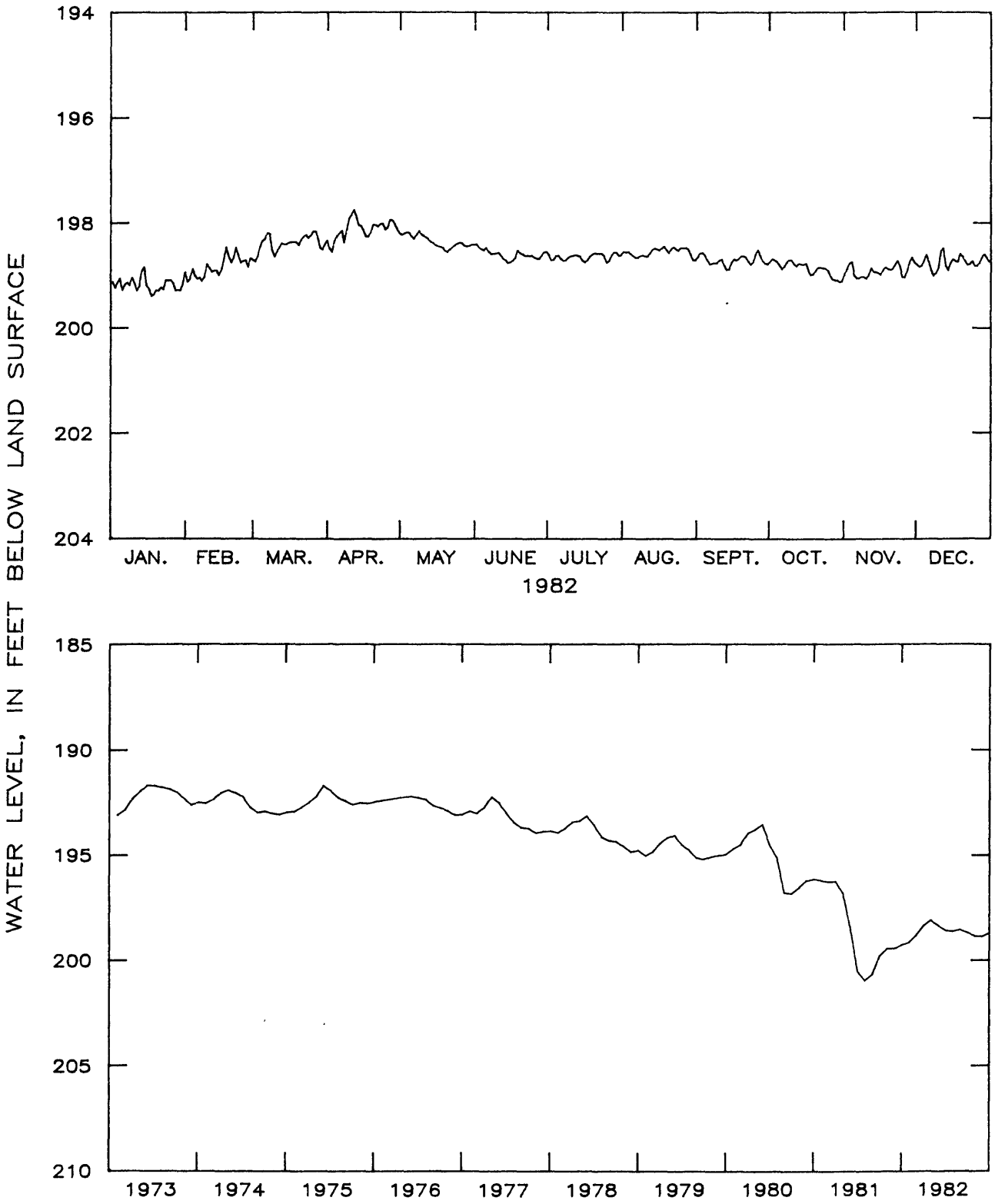

Figure 2.7.2–2.––Water level in observation well 15L020, Worth County.

17K001 SCL RAILROAD TIFT COUNTY

312716083304801 Local number, 17K001.
LOCATION.--Lat 31°27'16", long 83°30'48", Hydrologic Unit 03110204, along the Atlantic Coast Line Railroad, approximately 50 yards north of intersection of Seaboard Coast Line and the Southern Railroads.
Owner: Seaboard Coast Line Railroad.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 12 in., depth 312, cased to 110 ft, open hole.
DATUM.--Altitude of land-surface datum is 345 ft.
Measuring point: Floor of recorder shelter, 2.70 ft above land-surface datum.
REMARKS.--Well sounded April 15, 1977; obstruction at 120 ft. Water levels for periods of missing recorder record, April 3 to June 8, July 13-14, August 21-23, October 14, and December 6-8 and 29-31, were estimated.
PERIOD OF RECORD.--February 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.02 ft below land-surface datum, April 5, 1966; lowest, 141.86 ft below land-surface datum, July 30, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	137.92	137.75	137.41	137.64	136.97	138.14	138.32	137.88	138.19	138.38	138.50	137.89
2	137.96	137.72	137.40	137.54	136.72	138.23	138.25	137.95	138.21	138.44	138.52	138.07
3	137.90	137.63	137.32	137.33	136.56	138.32	138.29	138.04	138.13	138.53	138.42	138.20
4	137.95	137.74	137.27	137.24	136.74	138.26	138.40	138.14	138.02	138.56	138.37	138.22
5	138.11	137.75	137.28	137.17	136.99	138.31	138.44	138.02	137.94	138.51	138.51	138.20
6	138.09	137.63	137.01	137.14	137.05	138.37	138.44	137.93	137.91	138.47	138.48	138.42
7	138.04	137.63	136.87	137.36	137.03	138.40	138.38	137.83	137.94	138.46	138.39	138.26
8	138.10	137.65	137.30	137.12	137.13	138.44	138.22	137.95	138.10	138.35	138.41	138.23
9	137.92	137.55	137.49	136.91	137.08	138.85	138.13	137.97	138.14	138.42	138.48	138.19
10	137.91	137.58	137.49	136.84	137.32	138.87	138.28	137.90	137.95	138.58	138.53	138.13
11	138.04	137.67	137.43	136.74	137.47	138.84	138.36	137.84	137.99	138.51	138.43	137.81
12	138.18	137.58	137.47	136.87	137.68	138.78	138.35	137.75	138.08	138.50	138.33	137.78
13	138.02	137.55	137.45	137.04	137.94	138.69	138.45	137.69	138.03	138.48	138.34	138.05
14	137.86	137.51	137.37	137.06	138.22	138.67	138.46	137.76	138.02	138.41	138.20	138.10
15	138.11	137.47	137.40	137.15	138.16	138.79	138.42	137.79	138.05	138.46	138.33	137.91
16	137.96	137.34	137.43	137.26	138.07	138.76	138.40	137.88	138.05	138.37	138.33	137.91
17	137.99	137.18	137.49	137.26	137.95	138.61	138.31	137.74	137.91	138.41	138.26	137.83
18	138.04	137.34	137.51	137.18	138.03	138.58	138.13	137.65	137.89	138.56	138.10	137.77
19	138.02	137.43	137.48	137.04	137.88	138.48	138.10	137.72	137.94	138.83	138.07	137.88
20	138.02	137.30	137.48	137.03	138.09	138.54	138.16	137.74	138.05	138.86	138.15	137.94
21	138.02	137.05	137.44	137.07	138.14	138.47	138.19	137.66	138.18	138.70	138.21	137.94
22	138.03	137.24	137.46	137.02	138.25	138.51	138.25	137.58	138.20	138.84	138.14	137.86
23	137.77	137.43	137.43	137.01	138.00	138.51	138.24	137.69	138.07	138.67	138.01	137.84
24	137.69	137.44	137.35	137.13	138.10	138.43	138.05	137.89	137.90	138.54	137.84	137.80
25	137.74	137.45	137.30	137.09	137.97	138.28	138.05	137.82	138.06	138.58	137.91	137.78
26	137.88	137.56	137.28	136.94	138.06	138.27	138.10	137.89	138.25	138.75	138.03	137.75
27	137.98	137.30	137.37	136.98	138.20	138.26	138.05	137.93	138.38	138.80	138.15	137.73
28	138.03	137.28	137.47	136.82	138.30	138.31	138.05	137.92	138.55	138.72	138.18	137.75
29	138.04	---	137.49	136.71	138.23	138.48	138.10	137.83	138.64	138.73	138.13	137.70
30	137.82	---	137.53	136.81	138.18	138.47	137.95	137.95	138.50	138.71	137.96	137.56
31	137.55	---	137.54	---	138.04	---	137.82	138.08	---	138.62	---	137.57
MEAN	137.96	137.49	137.39	137.08	137.70	138.50	138.23	137.85	138.11	138.57	138.26	137.94

CAL YR 1982 MEAN 137.93 HIGH 136.56 LOW 138.87

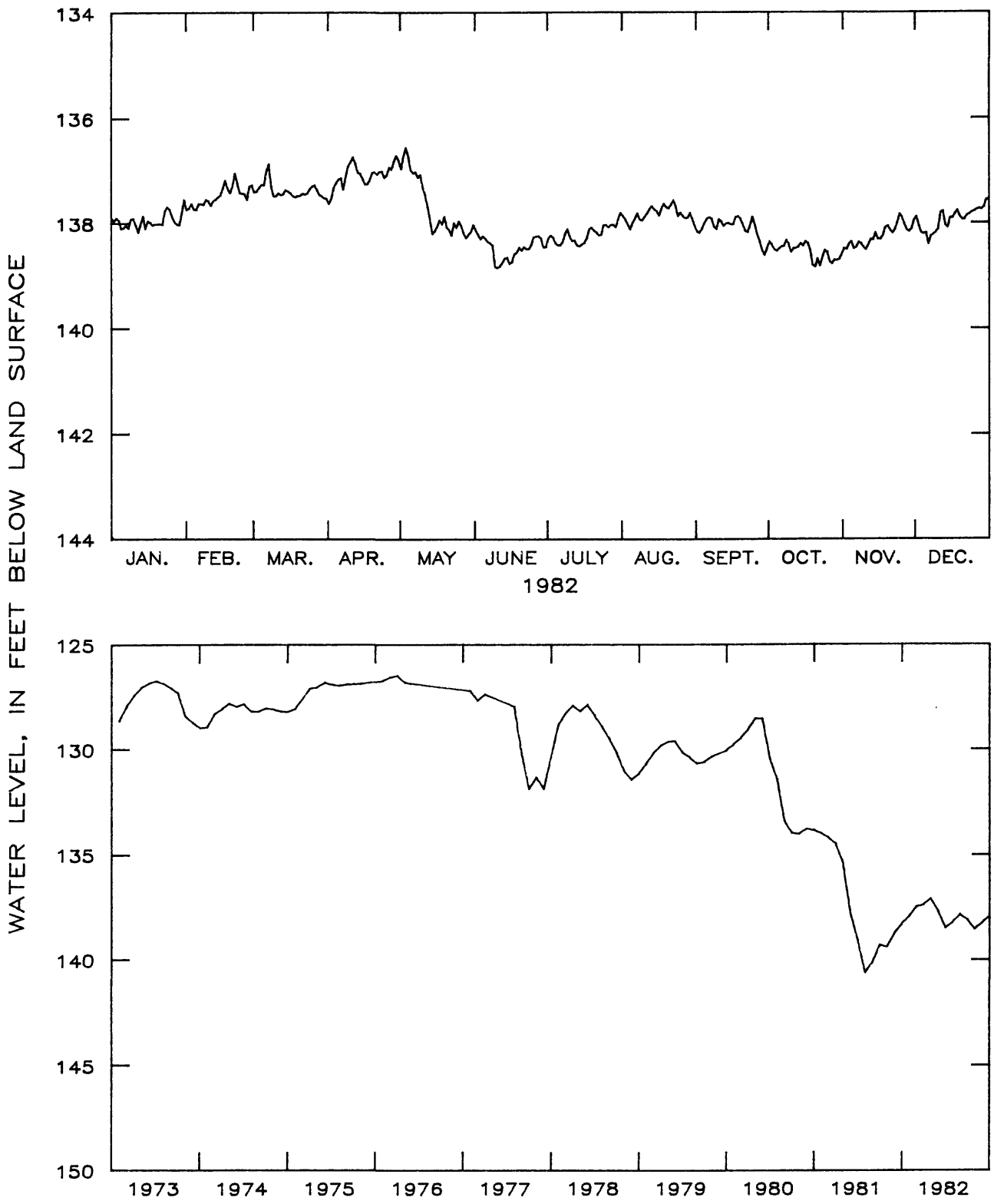

Figure 2.7.2–3.––Water level in observation well 17K001, Tift County.

18H016 ADEL COOK COUNTY

310813083260301 Local number, 18H016.
LOCATION.—Lat 31°08'13", long 83°26'03", Hydrologic Unit 03110203, on West Second Street near intersection of Georgia Highways 76 and 37.
Owner: U.S. Geological Survey, Adel test well.
AQUIFER.—Principal artesian aquifer.
WELL CHARACTERISTICS.—Drilled observation well, diameter 8 in., depth 865 ft, cased to 207 ft, open hole.
DATUM.—Altitude of land-surface datum is 241 ft.
Measuring point: Floor of recorder shelter, 2.66 ft above land-surface datum.
REMARKS.—Well pumped July 19, 1978; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted October 24, 1974. Water levels for periods of missing recorder record, June 18 to July 14 and September 27 to October 17, were estimated.
PERIOD OF RECORD.—December 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 163.34 ft below land-surface datum, July 5, 1966; lowest, 173.87 ft below land-surface datum, June 30, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	172.12	172.11	171.77	171.58	171.33	171.62	172.70	171.87	172.18	172.11	172.01	171.78
2	172.20	172.12	171.81	171.57	171.25	171.72	172.80	171.88	172.16	172.01	172.04	171.82
3	172.11	171.99	171.61	171.34	171.31	171.82	172.70	171.98	172.12	172.07	171.92	171.86
4	172.11	172.13	171.46	171.26	171.43	172.00	172.54	171.99	171.97	172.18	171.83	171.63
5	172.53	172.13	171.42	171.21	171.52	172.06	172.53	172.11	171.92	172.26	172.01	171.36
6	172.36	171.99	171.24	171.22	171.61	172.17	172.59	172.14	171.94	172.19	171.92	171.52
7	172.26	171.98	171.16	171.44	171.60	172.48	172.64	172.08	172.01	172.10	171.86	171.82
8	172.30	172.02	171.71	171.32	171.27	172.79	172.70	171.95	171.95	172.15	171.93	171.92
9	172.19	171.87	171.89	171.11	171.21	172.95	172.68	171.92	171.90	171.99	171.99	171.89
10	172.25	171.95	171.79	171.15	171.34	173.05	172.46	171.99	171.88	171.92	172.02	171.86
11	172.63	172.02	171.61	171.13	171.45	173.20	172.31	172.02	171.91	172.03	171.98	171.38
12	172.74	171.89	171.55	171.30	171.55	173.26	172.31	171.99	171.95	172.20	171.89	171.19
13	172.36	171.85	171.48	171.33	171.72	173.06	172.45	171.93	171.94	172.14	171.85	171.72
14	172.14	171.94	171.38	171.28	171.93	173.05	172.50	171.84	171.88	172.05	171.83	171.95
15	172.60	171.93	171.44	171.38	171.94	173.37	172.50	171.71	171.97	172.08	171.88	171.89
16	172.37	171.72	171.60	171.46	171.92	173.46	172.44	171.81	171.85	171.92	171.94	171.66
17	172.54	171.52	171.58	171.41	172.04	173.42	172.30	171.97	171.53	171.95	171.89	171.63
18	172.61	171.74	171.60	171.25	172.08	173.18	172.07	171.96	171.65	172.08	171.87	171.50
19	172.46	171.85	171.53	171.31	172.15	173.06	172.15	171.96	171.67	172.15	171.88	171.30
20	172.38	171.64	171.39	171.34	171.97	173.01	172.10	172.04	171.75	172.08	171.86	171.43
21	172.38	171.34	171.26	171.41	171.92	173.04	172.08	171.99	171.86	172.06	171.81	171.62
22	172.34	171.58	171.40	171.41	171.89	173.02	172.09	171.71	171.65	172.04	171.79	171.74
23	172.13	171.90	171.43	171.57	171.84	172.98	172.08	171.76	171.33	171.97	171.68	171.50
24	172.09	171.87	171.31	171.42	171.86	172.98	172.01	171.93	171.52	171.88	171.79	171.41
25	172.13	171.83	171.28	171.13	171.94	172.98	172.03	171.95	171.86	171.95	171.84	171.43
26	172.22	171.97	171.37	171.09	171.86	172.87	172.04	172.03	171.87	172.08	171.83	171.43
27	172.46	171.71	171.46	171.19	171.87	172.72	172.07	172.10	171.98	172.10	171.64	171.43
28	172.46	171.61	171.45	171.23	171.86	172.72	171.99	172.07	172.12	172.11	171.44	171.36
29	172.44	---	171.53	171.29	171.90	172.70	172.00	172.00	172.18	172.19	171.47	171.25
30	172.24	---	171.59	171.35	171.87	172.68	172.07	172.18	172.31	172.17	171.66	171.30
31	171.95	---	171.56	---	171.62	---	172.04	172.22	---	172.09	---	171.34
MEAN	172.33	171.86	171.51	171.32	171.71	172.78	172.32	171.97	171.89	172.07	171.85	171.58

CAL YR 1982 MEAN 171.93 HIGH 171.09 LOW 173.46

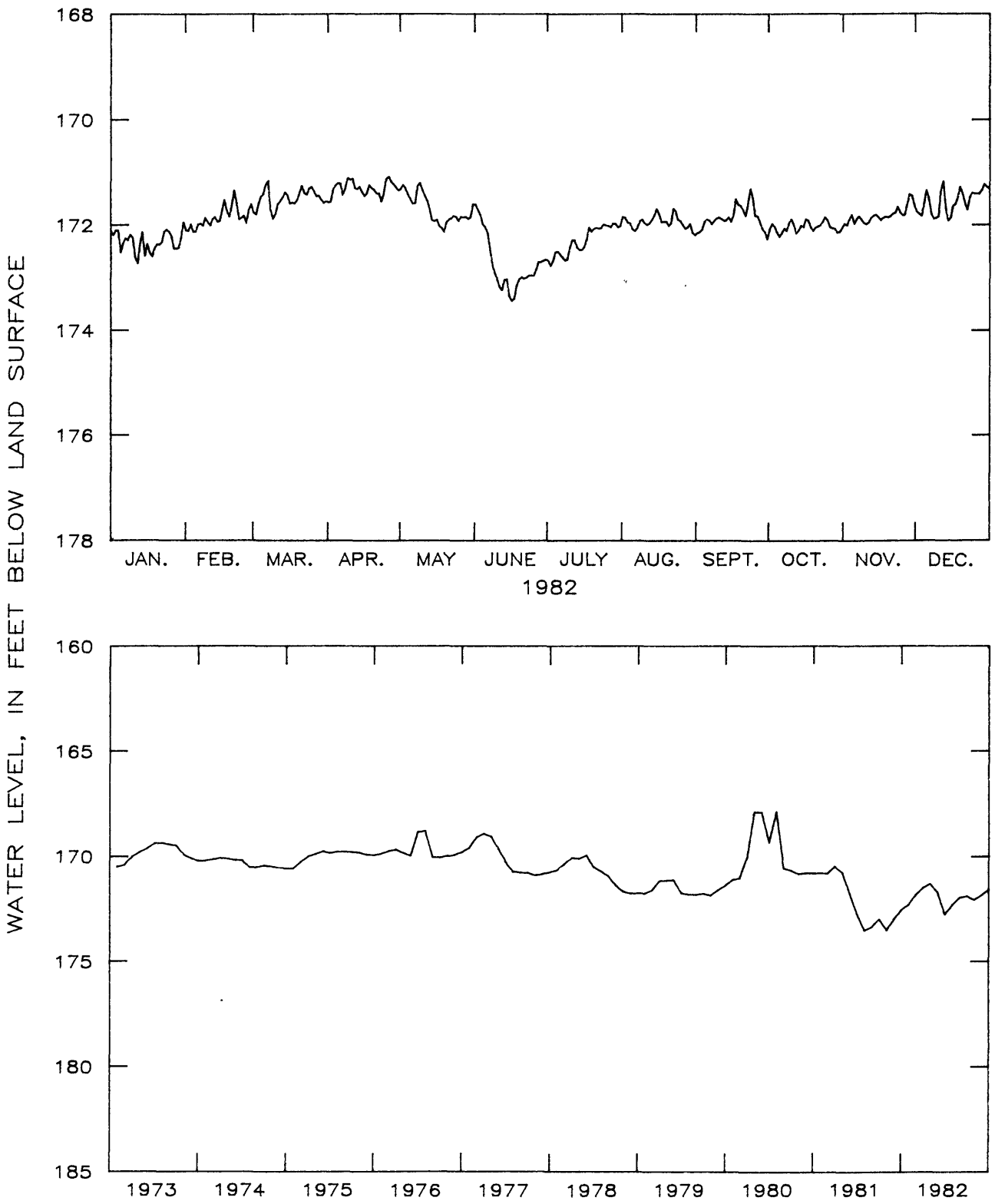

Figure 2.7.2–4.––Water level in observation well 18H016, Cook County.

19F039 VALDOSTA 8 LOWNDES COUNTY

305241083154401 Local number, 19F039.
LOCATION.--Lat 30°52'41", long 83°15'44", Hydrologic Unit 03110203, at water tank by Valdosta High School.
Owner: City of Valdosta, well 8.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused observation well, depth 450 ft, cased to 350 ft, open hole.
DATUM.--Altitude of land-surface datum is 222 ft.
Measuring point: Pump base, 1.40 ft above land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, June 19 to July 14 and November 20 to December 31, were estimated.
PERIOD OF RECORD.--February 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 118.52 ft below land-surface datum, March 14, 1980; lowest, 145.67 ft below land-surface datum, October 24, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	128.95	125.80	122.73	124.77	123.00	125.30	126.60	123.53	126.50	125.88	136.68	131.32
2	128.81	125.70	122.88	125.00	123.20	125.40	126.82	123.36	125.96	126.03	136.82	131.56
3	128.77	125.65	122.97	124.96	123.25	125.48	126.71	123.20	126.20	126.18	136.82	131.37
4	128.52	125.68	123.04	124.70	123.35	125.55	126.95	123.09	126.37	126.28	135.08	131.37
5	128.39	125.60	123.17	124.48	123.30	125.40	126.65	123.06	126.43	126.49	132.01	130.94
6	128.24	125.20	123.20	124.26	123.48	125.35	126.71	123.24	126.34	127.16	131.25	130.56
7	128.10	124.52	122.97	124.18	123.55	125.42	126.62	123.59	126.34	127.08	132.33	129.96
8	127.97	124.17	122.88	124.10	123.63	125.68	126.73	123.87	126.30	126.93	132.84	129.52
9	127.82	124.03	122.86	124.00	123.75	126.05	126.58	124.04	126.16	127.41	133.30	129.18
10	127.68	123.90	122.94	123.95	123.70	126.34	126.74	124.26	125.71	128.38	133.73	128.96
11	127.55	123.70	122.90	124.05	123.77	126.88	126.51	124.47	125.51	129.08	133.93	128.67
12	127.44	123.22	122.80	124.12	123.85	128.12	126.45	124.52	125.27	129.69	133.84	128.37
13	127.20	122.97	123.03	124.15	123.44	128.82	126.33	124.48	125.13	130.20	133.49	128.15
14	126.70	122.85	123.06	124.30	123.90	129.36	126.53	124.43	125.27	130.83	133.45	127.98
15	126.17	122.68	123.20	124.35	123.95	129.93	126.24	124.32	125.40	131.51	133.49	127.72
16	125.84	122.40	123.38	124.30	124.00	130.67	126.25	124.20	125.35	132.13	133.78	127.56
17	125.64	122.10	123.52	124.20	124.25	131.23	126.18	123.88	125.05	132.71	134.09	127.50
18	125.50	122.88	123.72	124.00	124.32	130.48	126.11	123.28	124.84	133.26	134.01	127.69
19	125.36	121.58	123.50	123.87	124.40	129.80	125.97	123.60	124.76	133.71	132.96	127.51
20	125.25	121.30	123.00	123.80	124.35	129.83	126.00	123.93	124.95	134.06	132.36	127.50
21	125.22	121.08	122.85	123.65	124.45	129.47	125.76	124.25	124.94	134.46	132.22	127.59
22	125.15	121.18	122.98	123.60	124.58	129.20	125.66	124.49	124.98	134.95	131.88	127.70
23	125.13	121.33	123.12	123.50	124.67	128.52	125.75	124.52	125.06	135.03	132.03	127.55
24	125.12	121.48	123.26	123.38	124.80	128.28	125.77	124.19	125.10	135.14	132.34	127.49
25	125.12	121.70	123.42	123.45	124.75	127.85	125.31	123.94	125.02	135.31	131.78	127.47
26	125.32	122.00	123.62	123.50	124.82	127.68	124.94	124.00	124.99	135.55	131.17	127.32
27	125.37	122.28	123.86	123.42	124.90	127.17	124.85	124.31	125.22	135.75	131.31	127.32
28	125.50	122.55	124.08	123.30	125.00	127.10	124.75	124.89	125.45	135.90	130.69	127.40
29	125.67	---	124.35	123.18	124.95	126.79	124.61	125.55	125.56	136.05	130.72	127.27
30	125.72	---	124.53	123.10	125.00	126.76	124.26	126.13	125.73	136.23	130.70	127.10
31	125.78	---	124.64	---	125.10	---	123.80	126.51	---	136.48	---	126.88
MEAN	126.61	123.20	123.31	123.99	124.11	127.66	125.97	124.17	125.53	131.48	133.04	128.53

CAL YR 1982 MEAN 126.48 HIGH 121.08 LOW 136.82

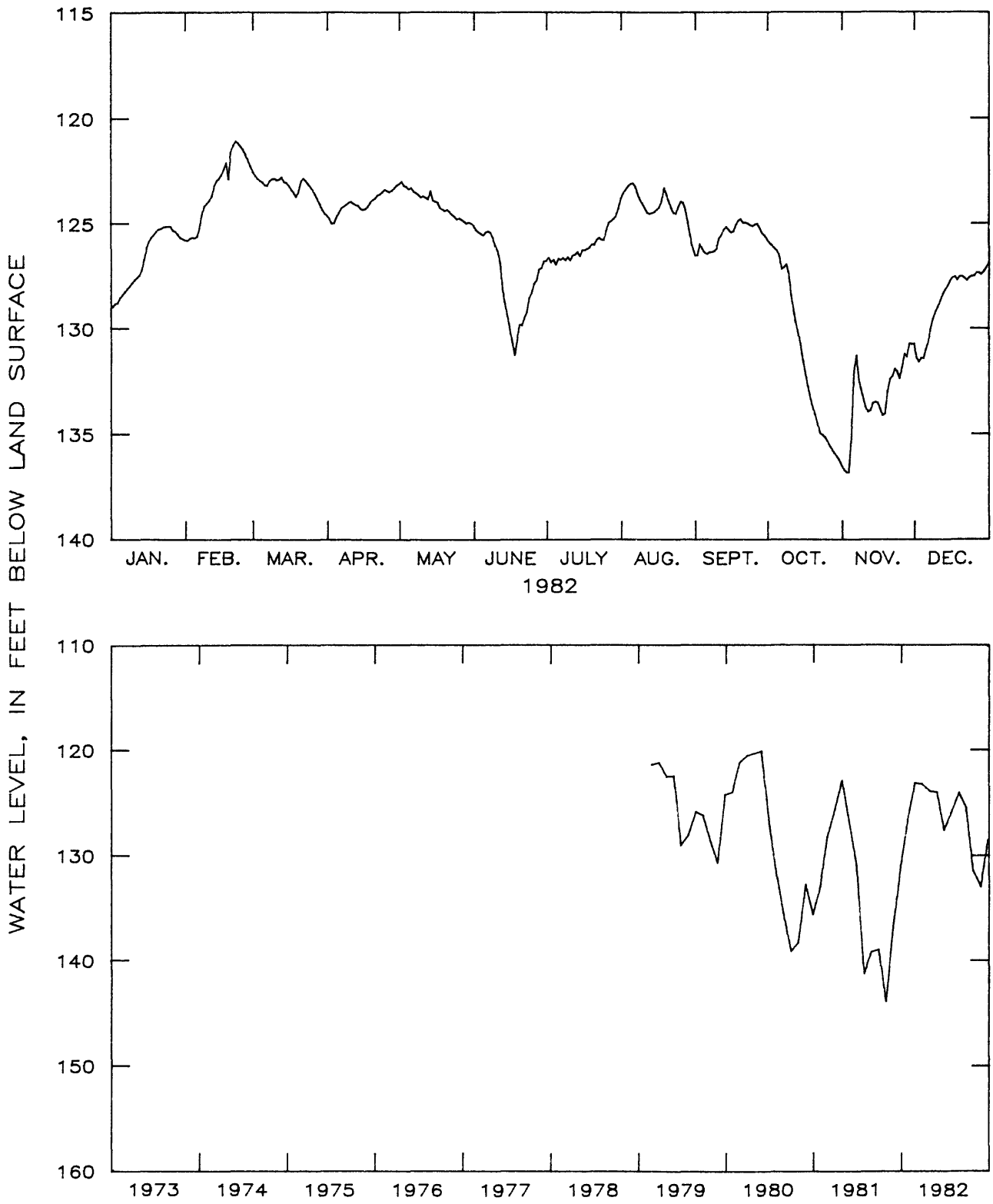

Figure 2.7.2–5.––Water level in observation well 19F039, Lowndes County.

19E009 VALDOSTA LOWNDES COUNTY

304949083165301 Local number, 19E009.
LOCATION.—Lat 30°49'51", long 83°16'59", Hydrologic Unit 03110202, N. Oak Street, one block north of intersection with U.S. Highway 84, Valdosta, Ga.
Owner: City of Valdosta.
AQUIFER.—Principal artesian aquifer.
WELL CHARACTERISTICS.—Drilled unused municipal supply well, diameter 20 in., depth 342 ft, cased to 200 ft open hole.
DATUM.—Altitude of land-surface datum is 217 ft.
Measuring point: Top of casing, 1.7 ft above land-surface datum.
REMARKS.—Well pumped July 18, 1978; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted April 11, 1963. Water levels for period of missing recorder record, January 1-11, were estimated.
PERIOD OF RECORD.—February 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 112.69 ft below land-surface datum, March 9, 1964; lowest, 145.50 ft below land-surface datum, October 22, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	132.76	129.99	127.13	129.22	127.16	129.66	131.70	129.28	132.54	131.94	138.09	135.53
2	132.54	129.84	127.22	129.04	126.75	130.28	131.83	129.17	131.98	131.64	137.73	135.79
3	132.36	130.22	128.11	128.74	127.10	130.45	132.40	129.73	131.74	131.37	138.61	135.63
4	132.34	129.79	127.78	128.66	127.35	130.37	131.28	130.05	132.04	131.69	137.88	135.66
5	132.43	129.29	126.90	128.65	128.03	130.83	131.07	129.81	131.37	132.07	136.89	135.27
6	132.26	129.14	127.20	128.40	131.30	130.67	132.32	131.25	130.67	132.69	135.77	134.91
7	132.19	128.84	127.20	129.04	131.52	131.08	132.86	132.39	130.78	133.27	135.54	134.74
8	132.12	128.72	127.56	128.74	130.59	131.55	131.70	132.53	132.00	132.94	135.65	134.85
9	131.83	128.43	127.48	128.16	128.01	132.50	131.40	132.98	131.33	133.03	135.96	134.80
10	132.17	129.12	128.12	128.13	128.33	132.74	132.07	132.73	130.82	133.02	137.00	134.18
11	133.55	128.28	128.09	127.69	128.83	133.04	131.37	131.14	131.05	133.00	136.71	133.56
12	134.50	128.28	127.86	127.88	129.51	133.09	131.13	130.34	130.44	133.39	136.59	133.16
13	133.98	128.10	128.01	127.69	129.54	132.78	131.34	130.12	130.64	134.34	136.88	133.07
14	132.87	128.02	127.83	128.05	129.51	133.18	132.23	130.39	130.87	134.24	135.95	132.88
15	132.50	127.95	127.99	127.91	129.92	135.03	131.83	129.79	131.47	134.39	136.18	133.61
16	131.48	127.62	128.00	127.73	129.98	136.21	131.71	130.17	131.11	135.11	136.39	133.25
17	130.71	128.15	128.73	127.91	130.16	134.62	131.70	129.87	131.02	134.92	136.83	132.36
18	130.58	128.20	128.50	127.76	130.61	133.94	131.71	130.12	131.15	135.19	136.58	133.10
19	130.67	127.29	128.16	128.00	130.73	133.35	131.99	129.83	130.55	135.67	136.60	132.49
20	130.71	127.01	128.83	128.00	130.11	132.75	133.13	129.60	130.49	136.60	135.61	132.61
21	130.55	126.60	128.16	128.75	130.06	133.40	133.91	129.88	130.21	136.62	135.69	132.73
22	130.26	126.76	128.35	128.44	130.73	133.13	131.77	129.96	130.90	136.28	135.58	133.05
23	129.97	127.16	128.24	128.18	130.24	132.98	131.19	129.92	130.75	136.29	135.54	132.79
24	129.74	127.59	128.49	128.22	130.21	132.72	131.16	129.79	130.70	136.16	136.22	133.06
25	129.80	126.97	128.29	127.60	130.24	132.09	130.89	130.88	130.65	136.32	135.80	132.84
26	129.83	126.99	128.78	127.79	130.69	132.61	131.10	130.16	130.59	136.71	135.22	132.59
27	130.61	126.78	128.73	127.39	130.11	131.05	130.79	130.44	130.68	137.51	135.40	133.05
28	130.44	126.67	128.12	128.08	130.11	131.15	131.03	131.06	131.17	137.33	134.81	132.28
29	130.37	---	128.15	127.52	130.50	131.19	130.53	130.79	131.98	137.25	134.86	132.25
30	130.41	---	128.42	127.17	129.85	131.86	130.37	130.98	131.76	137.78	134.87	131.63
31	129.90	---	129.37	---	129.45	---	130.11	131.35	---	137.50	---	131.70
MEAN	131.50	128.14	128.06	128.15	129.59	132.34	131.60	130.53	131.12	134.72	136.25	133.53

CAL YR 1982 MEAN 131.31 HIGH 126.60 LOW 138.61

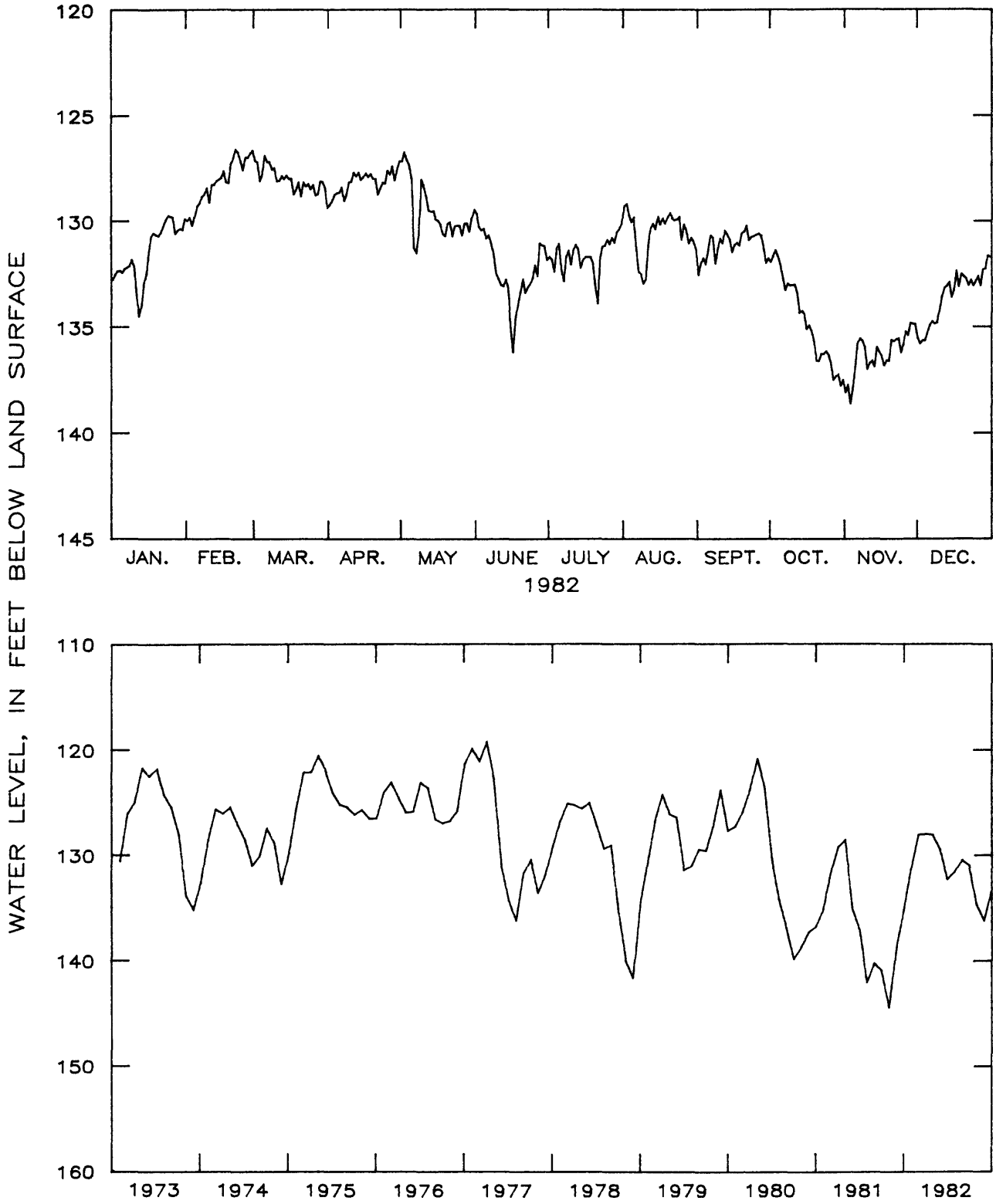

Figure 2.7.2—6.——Water level in observation well 19E009, Lowndes County.

2.7.3 East-central area

Water levels in the principal artesian aquifer in east-central Georgia are affected by precipitation, evapotranspiration, stream stage, and pumpage. Precipitation was about normal during the summer of 1982, and ground-water levels began to recover from the record lows experienced during the 1980-81 drought.

Mean annual water levels during 1982 ranged from about the same as in 1981 to 5.9 feet higher.

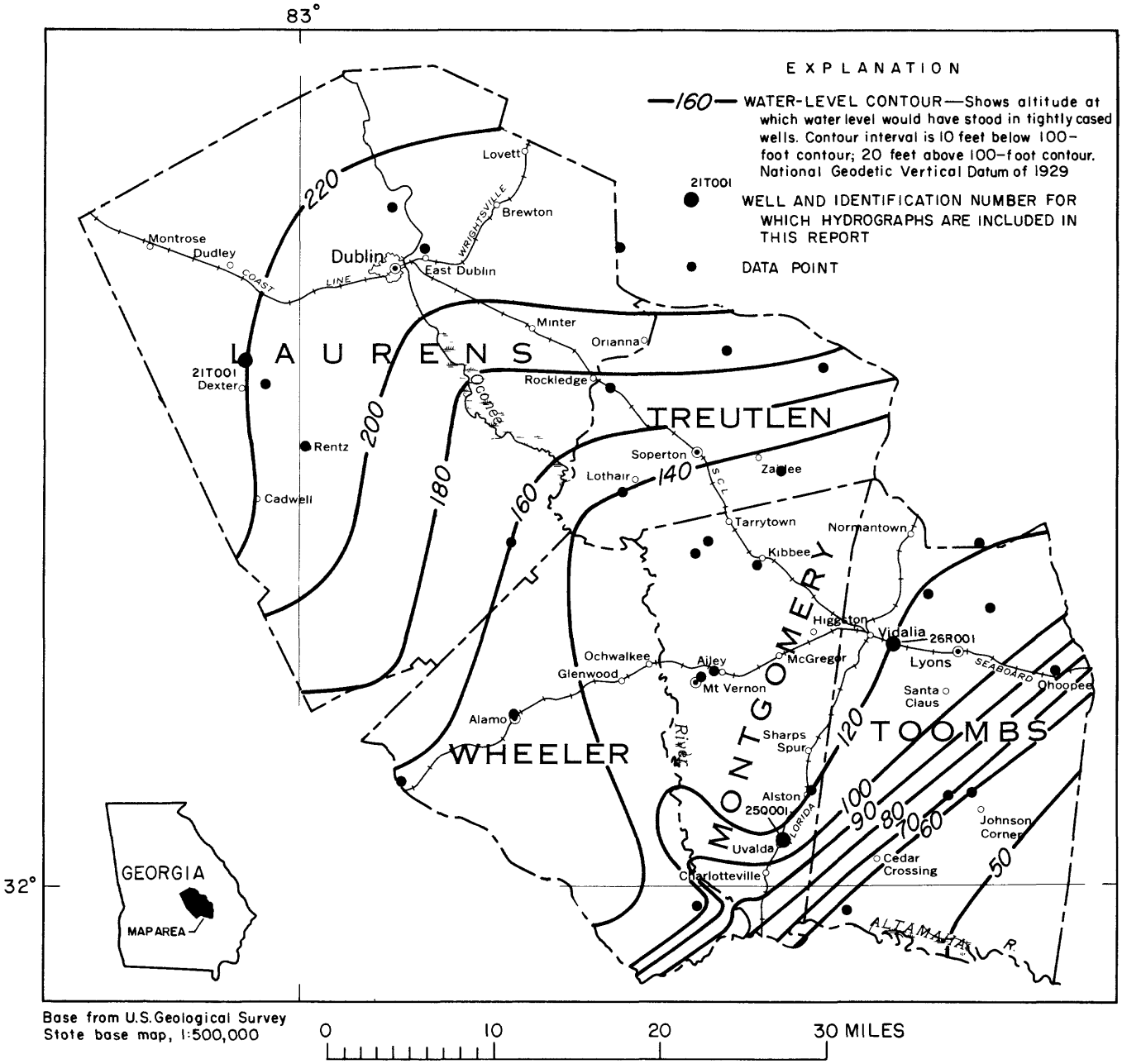

Figure 2.7.3–1.——Observation well locations and the water level in the principal artesian aquifer in the east–central area, November 1982.

21T001 HOGAN LAURENS COUNTY

322652083033001 Local number, 21T001.
LOCATION.—Lat 32°27'06", long 83°03'28", Hydrologic Unit 03070102, approximately 1.8 mi northeast of Dexter, Ga.
Owner: Danny Hogan.
AQUIFER.—Principal artesian aquifer.
WELL CHARACTERISTICS.—Drilled unused domestic well, diameter 4 in., depth 123 ft, cased to 89 ft, open hole.
DATUM.—Altitude of land-surface datum is 252 ft.
Measuring point: Floor of recorder shelter, 2.57 ft above land-surface datum.
REMARKS.—Borehole geophysical survey conducted November 1973. Water levels for periods of missing recorder record, January 1-18 and April 6 to May 3, were estimated.
PERIOD OF RECORD.—March 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 24.11 ft below land-surface datum, February 14, 1972; lowest, 39.58 ft below land-surface datum, November 12, 1968.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	31.84	26.35	26.05	28.15	26.24	29.15	30.31	30.14	31.36	31.48	30.86	29.68
2	31.58	26.41	26.11	28.23	26.32	29.24	30.21	30.05	31.46	31.52	30.88	29.72
3	31.31	26.31	26.18	28.29	26.40	29.33	30.10	30.02	31.55	31.62	30.91	29.76
4	30.88	26.08	26.26	28.41	26.48	29.33	30.06	30.04	31.68	31.71	30.91	29.76
5	30.36	25.85	26.37	28.10	26.58	29.30	30.06	30.12	31.84	31.83	31.01	29.73
6	29.99	25.68	26.43	27.84	26.70	29.34	30.13	30.20	32.00	31.95	31.08	29.77
7	29.67	25.63	26.42	27.57	26.81	29.41	30.22	30.24	32.12	32.03	31.13	29.88
8	29.25	25.58	26.56	27.31	26.89	29.47	30.29	30.29	32.23	32.07	31.18	29.98
9	28.84	25.48	26.63	26.95	27.06	29.54	30.34	30.21	32.33	32.09	31.24	30.01
10	28.56	25.45	26.61	26.75	27.24	29.64	30.41	30.07	32.32	32.12	31.27	30.02
11	28.44	25.51	26.56	26.65	27.41	29.76	30.44	29.93	32.19	31.71	31.31	29.92
12	28.32	25.54	26.54	26.55	27.60	29.87	30.48	29.83	31.90	31.12	31.31	29.57
13	28.05	25.49	26.56	26.45	27.78	29.88	30.54	29.76	31.49	30.67	31.32	29.17
14	27.64	25.50	26.62	26.35	27.95	29.89	30.62	29.74	31.19	30.39	31.37	28.77
15	27.23	25.48	26.67	26.26	28.13	29.94	30.71	29.77	30.99	30.22	31.41	28.41
16	26.82	25.41	26.74	26.17	28.33	30.01	30.78	29.84	30.87	30.10	31.46	28.15
17	26.42	25.29	26.81	26.08	28.50	30.10	30.78	29.89	30.84	30.10	31.47	27.90
18	26.32	25.30	26.86	26.04	28.64	30.11	30.81	29.91	30.84	30.12	31.39	27.76
19	26.22	25.35	26.92	25.90	28.78	30.19	30.86	29.99	30.84	30.12	31.12	27.59
20	26.20	25.36	26.97	25.81	28.85	30.32	30.94	30.03	30.83	30.10	30.78	27.51
21	26.17	25.33	27.06	25.89	28.92	30.46	31.04	30.04	30.82	30.09	30.48	27.48
22	26.18	25.41	27.17	25.97	28.99	30.58	31.11	30.09	30.86	30.13	30.22	27.49
23	26.13	25.54	27.28	26.05	29.10	30.69	31.07	30.20	30.94	30.19	30.02	27.49
24	26.09	25.61	27.35	26.13	29.22	30.80	30.96	30.30	30.99	30.26	29.92	27.48
25	26.11	25.69	27.43	26.21	29.26	30.91	30.84	30.40	31.00	30.33	29.92	27.52
26	26.15	25.85	27.54	26.29	29.12	31.01	30.76	30.52	31.02	30.43	29.89	27.56
27	26.26	25.89	27.70	26.22	29.03	30.99	30.72	30.65	31.11	30.53	29.80	27.60
28	26.31	25.95	27.86	26.15	28.99	30.94	30.65	30.78	31.23	30.61	29.70	27.61
29	26.35	---	27.95	26.08	29.00	30.75	30.51	30.93	31.32	30.67	29.62	27.46
30	26.36	---	28.01	26.16	29.03	30.49	30.38	31.10	31.41	30.75	29.64	27.10
31	26.31	---	28.08	---	29.09	---	30.25	31.24	---	30.83	---	26.66
MEAN	27.82	25.65	26.91	26.70	28.01	30.05	30.56	30.20	31.39	30.90	30.75	28.53

CAL YR 1982 MEAN 28.98 HIGH 25.29 LOW 32.33

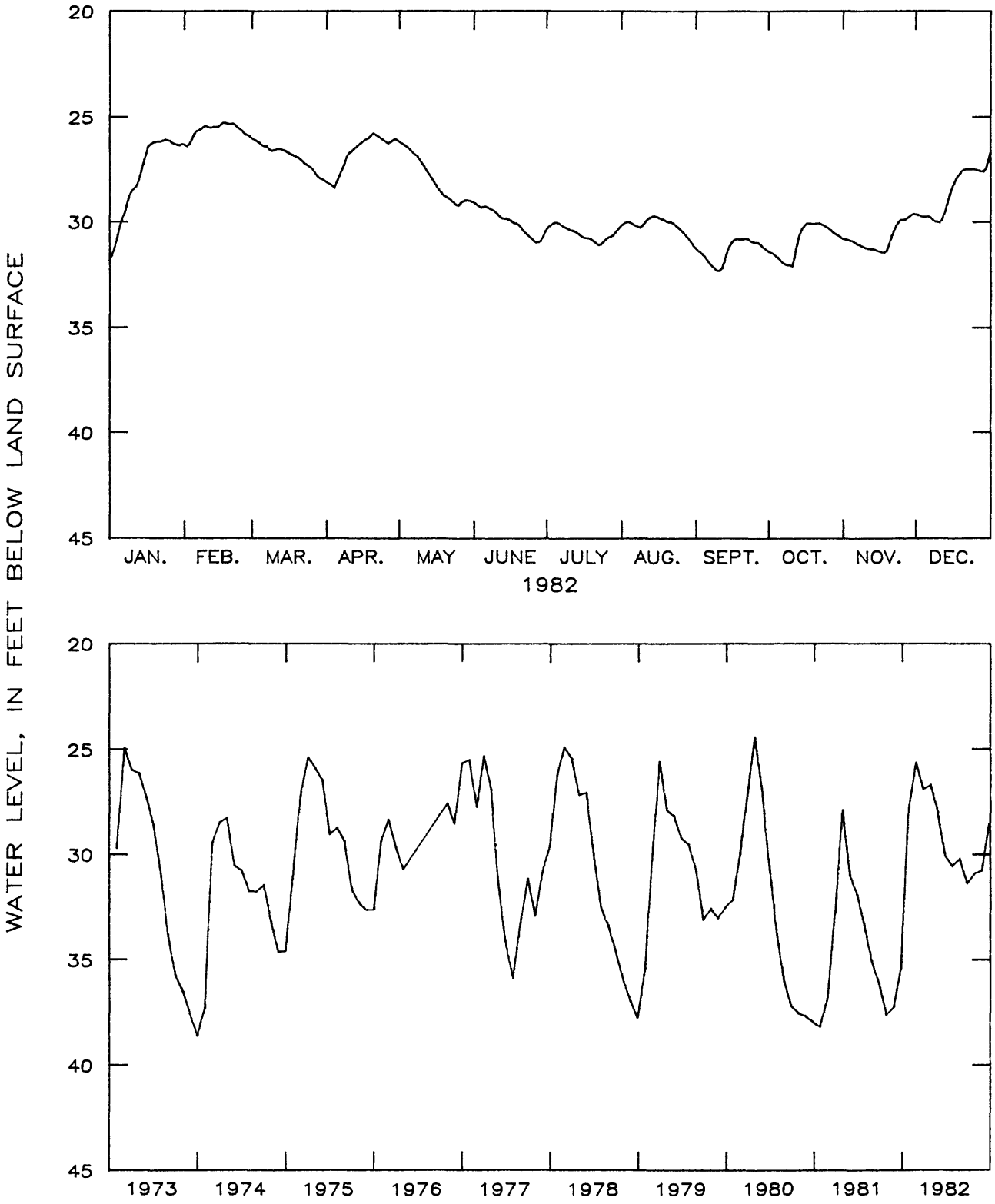

Figure 2.7.3–2.––Water level in observation well 21T001, Laurens County.

25Q001 UVALDA SCHOOL MONTGOMERY COUNTY

320226082301101 Local number, 25Q001.
LOCATION.--Lat 32°02'25", long 82°30'05", Hydrologic Unit 03070106, well is located behind the Uvalda School in the city of Uvalda.
Owner: Uvalda School.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 6 in., depth 536 ft., cased to 421, open hole.
DATUM.--Altitude of land-surface datum is 190 ft.
Measuring point: Top of 6-inch casing at land surface.
REMARKS.--Borehole geophysical survey conducted April 22, 1966.
PERIOD OF RECORD.--June 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 64.13 ft below land-surface datum, June 10, 1966; lowest, 78.9 ft below land-surface datum, October 9, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	77.95	77.59	77.08	76.76	76.51	76.71	76.96	76.61	76.67	76.66	76.70	76.51
2	77.99	77.56	77.01	76.73	76.48	76.73	77.05	76.56	76.64	76.63	76.64	76.54
3	77.91	77.45	76.94	76.67	76.46	76.75	77.06	76.56	76.63	76.66	76.60	76.52
4	77.85	77.50	76.89	76.73	76.46	76.75	77.03	76.60	76.66	76.70	76.52	76.47
5	77.97	77.50	76.89	76.62	76.48	76.69	77.00	76.65	76.69	76.75	76.64	76.41
6	77.91	77.49	76.82	76.58	76.52	76.76	76.98	76.66	76.71	76.80	76.67	76.46
7	77.86	77.54	76.81	76.70	76.50	76.80	76.97	76.67	76.67	76.78	76.67	76.55
8	77.86	77.51	77.07	76.58	76.45	76.79	76.92	76.67	76.65	76.76	76.65	76.60
9	77.74	77.34	77.10	76.54	76.50	76.80	76.89	76.66	76.65	76.74	76.64	76.54
10	77.80	77.39	77.01	76.65	76.51	76.77	76.87	76.67	76.61	76.76	76.65	76.48
11	77.86	77.44	76.92	76.63	76.51	76.85	76.85	76.65	76.59	76.78	76.61	76.30
12	77.83	77.34	76.88	76.67	76.54	76.90	76.84	76.62	76.61	76.78	76.53	76.19
13	77.64	77.24	76.88	76.62	76.57	76.90	76.84	76.60	76.63	76.72	76.57	76.40
14	77.57	77.31	76.89	76.60	76.58	76.92	76.86	76.60	76.64	76.71	76.59	76.43
15	77.78	77.27	76.86	76.64	76.60	76.94	76.85	76.62	76.61	76.70	76.61	76.31
16	77.77	77.13	76.87	76.72	76.64	76.94	76.79	76.63	76.61	76.70	76.64	76.23
17	77.85	76.99	76.85	76.72	76.65	76.93	76.80	76.59	76.64	76.81	76.64	76.27
18	77.82	77.10	76.87	76.73	76.67	76.85	76.78	76.57	76.65	76.85	76.65	76.29
19	77.74	77.12	76.82	76.73	76.70	76.89	76.73	76.61	76.63	76.82	76.66	76.20
20	77.73	77.05	76.77	76.68	76.69	76.92	76.72	76.61	76.64	76.78	76.65	76.20
21	77.68	76.93	76.77	76.70	76.69	76.95	76.73	76.56	76.64	76.74	76.61	76.24
22	77.72	77.05	76.80	76.70	76.73	76.98	76.72	76.56	76.68	76.74	76.54	76.29
23	77.56	77.13	76.77	76.76	76.77	77.01	76.70	76.57	76.73	76.75	76.50	76.28
24	77.56	77.09	76.74	76.70	76.77	77.01	76.69	76.57	76.70	76.72	76.54	76.25
25	77.56	77.12	76.71	76.55	76.75	77.05	76.70	76.54	76.63	76.71	76.67	76.30
26	77.59	77.21	76.74	76.42	76.75	77.06	76.68	76.56	76.57	76.74	76.65	76.30
27	77.68	77.08	76.84	76.40	76.76	77.04	76.64	76.58	76.63	76.75	76.57	76.26
28	77.65	77.09	76.91	76.44	76.75	76.98	76.62	76.60	76.67	76.73	76.48	76.18
29	77.66	---	76.89	76.50	76.75	76.91	76.65	76.67	76.68	76.71	76.43	76.13
30	77.59	---	76.84	76.52	76.75	76.90	76.68	76.71	76.69	76.74	76.49	76.14
31	77.48	---	76.80	---	76.75	---	76.66	76.71	---	76.76	---	76.15
MEAN	77.75	77.27	76.87	76.63	76.62	76.88	76.81	76.61	76.65	76.74	76.60	76.34

CAL YR 1982 MEAN 76.81 HIGH 76.13 LOW 77.99

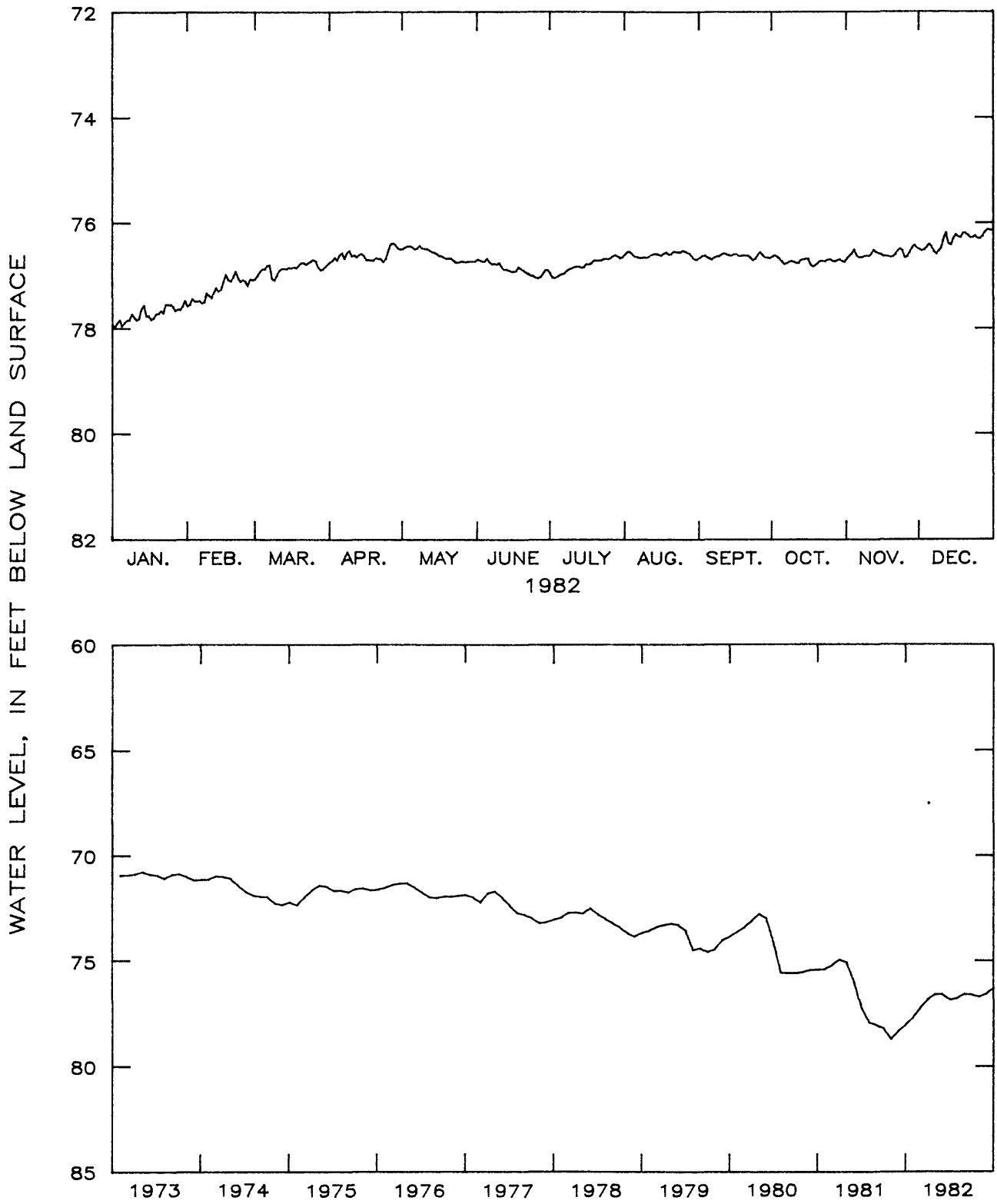

Figure 2.7.3–3.––Water level in observation well 25Q001, Montgomery County.

26R001 VIDALIA 2 TOOMBS COUNTY

321302082243601 Local number, 26R001.
LOCATION.--Lat 32°13'02", long 82°24'36", Hydrologic Unit 03070107, 15 ft south of the Vidalia Water and Street Department and Fire Station.
Owner: City of Vidalia, well 2.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled municipal well, diameter 12 in., depth 1,000 ft, cased to 720 ft, open hole.
DATUM.--Altitude of land-surface datum is 285 ft.
Measuring point: Top of 12-inch casing.
REMARKS.--None.
PERIOD OF RECORD.--April 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 151.64 ft below land-surface datum, April 15, 1974; lowest, 163.75 ft below land-surface datum, July 17, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	160.94	160.80	160.14	160.53	160.39	160.89	161.24	160.92	161.38	161.92	161.65	160.62
2	160.96	160.82	160.14	160.42	160.19	160.95	162.20	161.14	161.44	161.86	161.82	160.88
3	160.91	160.54	160.08	160.38	160.30	161.08	161.50	161.20	161.28	161.92	161.61	160.94
4	160.88	160.75	160.06	160.16	160.55	161.32	161.16	161.28	161.41	161.96	161.34	160.58
5	161.09	160.92	160.05	160.10	160.46	160.86	161.53	162.17	161.42	162.06	161.40	160.28
6	160.95	160.95	159.98	160.09	160.77	160.72	161.41	162.24	161.64	162.00	161.26	160.57
7	160.95	160.80	159.80	160.30	160.80	160.76	161.11	161.73	161.80	162.07	161.02	160.62
8	161.14	160.72	160.03	160.10	160.82	160.96	161.09	161.32	161.78	161.72	161.22	160.80
9	160.84	160.44	160.15	160.00	160.79	161.49	160.98	161.58	161.86	162.08	161.67	160.71
10	160.80	160.32	160.03	160.09	161.14	161.56	161.03	161.46	161.60	161.92	161.60	160.76
11	161.15	160.67	160.20	160.04	161.46	161.76	160.91	161.40	161.38	161.85	161.44	160.38
12	161.64	160.52	160.16	160.02	162.01	161.74	161.10	161.43	161.20	161.65	161.34	160.09
13	161.87	160.41	160.18	160.20	162.08	161.32	161.11	161.47	161.32	161.89	161.12	160.46
14	161.66	160.34	160.09	160.22	162.21	161.16	161.03	161.36	161.47	161.52	160.89	160.47
15	161.66	160.34	159.69	160.42	162.35	161.51	160.98	161.34	161.46	161.80	160.84	160.54
16	161.44	160.21	160.34	160.44	162.31	161.72	161.00	161.38	161.40	161.57	160.80	160.44
17	161.48	160.20	160.27	160.56	162.46	161.44	160.98	161.27	161.54	161.52	160.81	160.38
18	161.48	160.30	160.32	160.36	162.41	161.31	161.02	161.22	161.52	161.94	161.12	160.16
19	161.34	160.28	160.34	160.36	161.86	161.38	160.78	161.16	161.48	161.90	161.36	159.96
20	161.50	160.23	160.33	160.32	160.68	161.24	160.84	161.17	161.54	162.02	160.80	160.29
21	161.34	160.00	160.36	160.42	160.69	161.45	161.54	161.14	161.44	162.06	160.62	160.33
22	161.33	160.12	160.25	160.42	160.71	161.39	161.31	161.02	161.46	162.04	160.72	160.32
23	161.10	160.26	160.18	160.26	160.72	161.44	161.52	161.04	161.48	161.66	160.86	160.16
24	160.86	160.31	160.04	159.11	160.22	161.30	161.07	161.24	161.48	160.57	160.79	160.08
25	160.81	160.36	160.10	158.76	160.18	161.54	161.03	161.25	161.50	161.66	160.71	159.95
26	160.93	160.44	160.15	159.60	161.48	161.36	161.16	161.46	161.33	161.80	160.46	159.72
27	161.10	160.24	160.32	160.14	161.68	160.86	161.18	161.55	161.42	161.86	160.36	159.76
28	161.08	160.08	160.14	160.20	161.60	160.90	161.21	161.06	161.68	161.89	160.22	160.11
29	161.06	---	160.08	160.25	161.45	161.13	161.43	160.65	161.80	161.86	160.58	159.75
30	161.04	---	160.28	160.30	161.26	161.08	161.44	161.16	161.94	161.94	160.39	159.66
31	160.74	---	160.37	---	160.90	---	161.26	161.34	---	161.74	---	159.60
MEAN	161.16	160.44	160.15	160.15	161.19	161.25	161.20	161.33	161.52	161.81	161.03	160.30

CAL YR 1982 MEAN 160.97 HIGH 158.76 LOW 162.46

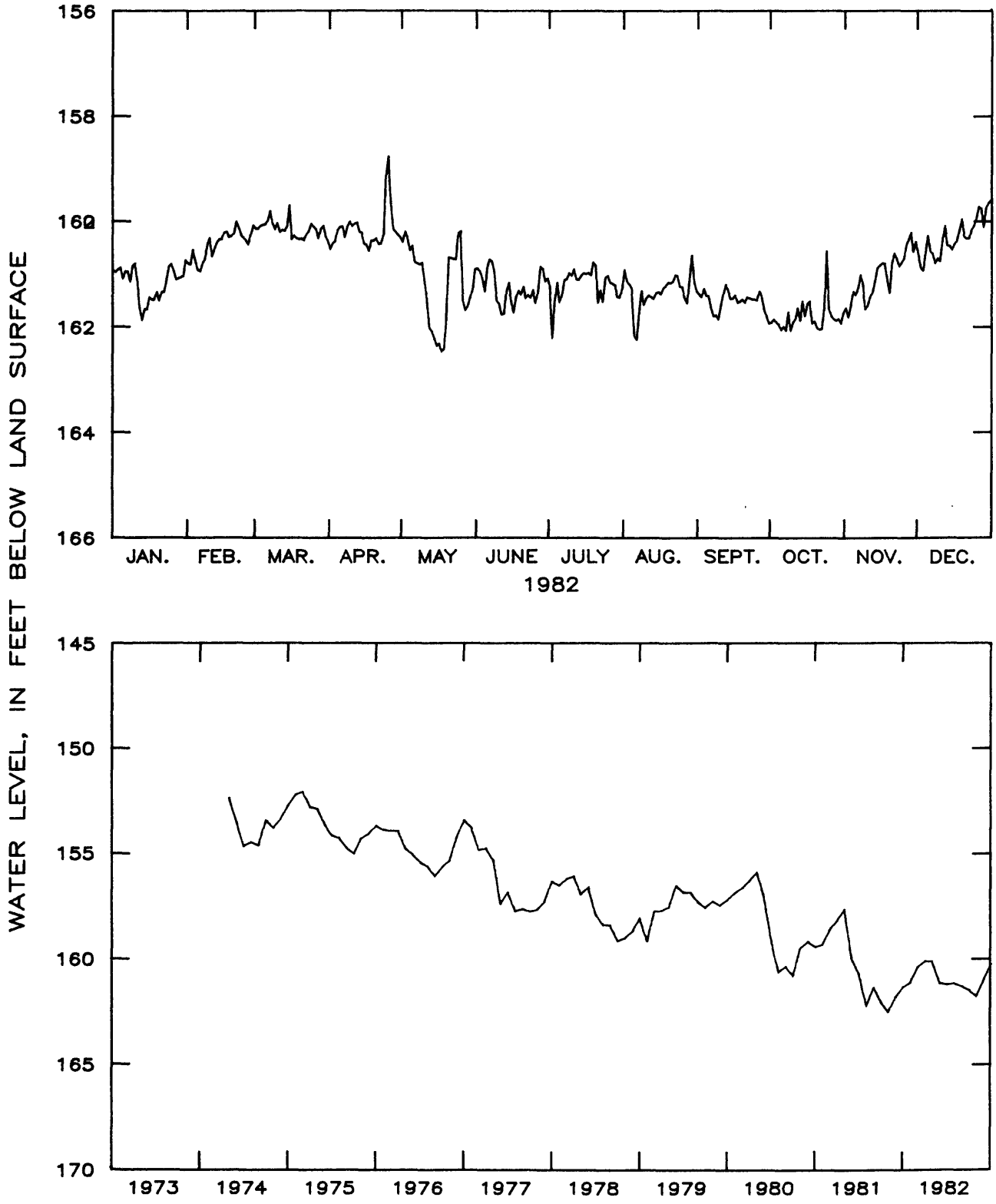

Figure 2.7.3–4.––Water level in observation well 26R001, Toombs County.

2.7.4 Coastal area

Ground-water in coastal Georgia constitutes one of the most valuable mineral resources in the area. Growth of the pulp and paper industry, as well as the chemical industry, has occurred mainly because of the presence of large supplies of ground water available at moderate depths and at small cost. Large pulp mills are located at Savannah, Jesup, Riceboro, Brunswick, and St. Marys. The combined pumpage in these areas is about 300 Mgal/d, about 80 percent of which is used for industrial purposes. All of the ground water is pumped from the principal artesian aquifer (Wait and Gregg, 1973, p. 9).

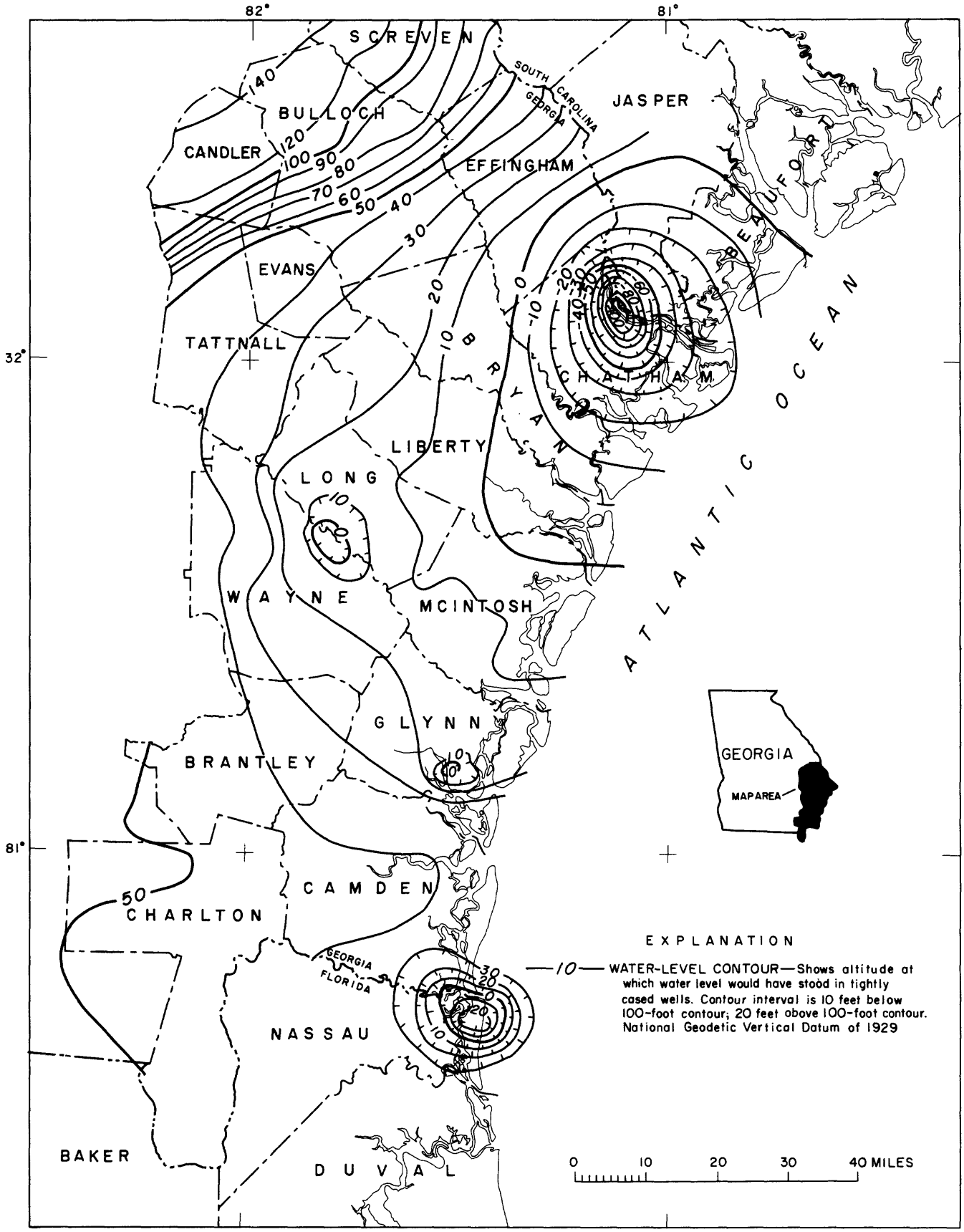

Figure 2.7.4—1.——Water level in the principal artesian aquifer in the coastal area, November 1982.

2.7.4.1 Savannah area

Ground-water levels in the principal artesian aquifer in the Savannah area are affected by changes in municipal and industrial pumpage. During 1982, water levels recovered somewhat from the record lows of 1980-81 due to reductions in industrial pumpage. The effects of partial industrial shutdowns are illustrated by the 1982 hydrographs for observation well 36Q008 (Layne-Atlantic) near the center of pumpage and for observation well 36Q020 (Morrison) 8 miles southwest.

Mean annual water levels in the Savannah area were from 0.9 foot to 5 feet higher in 1982 than in 1981.

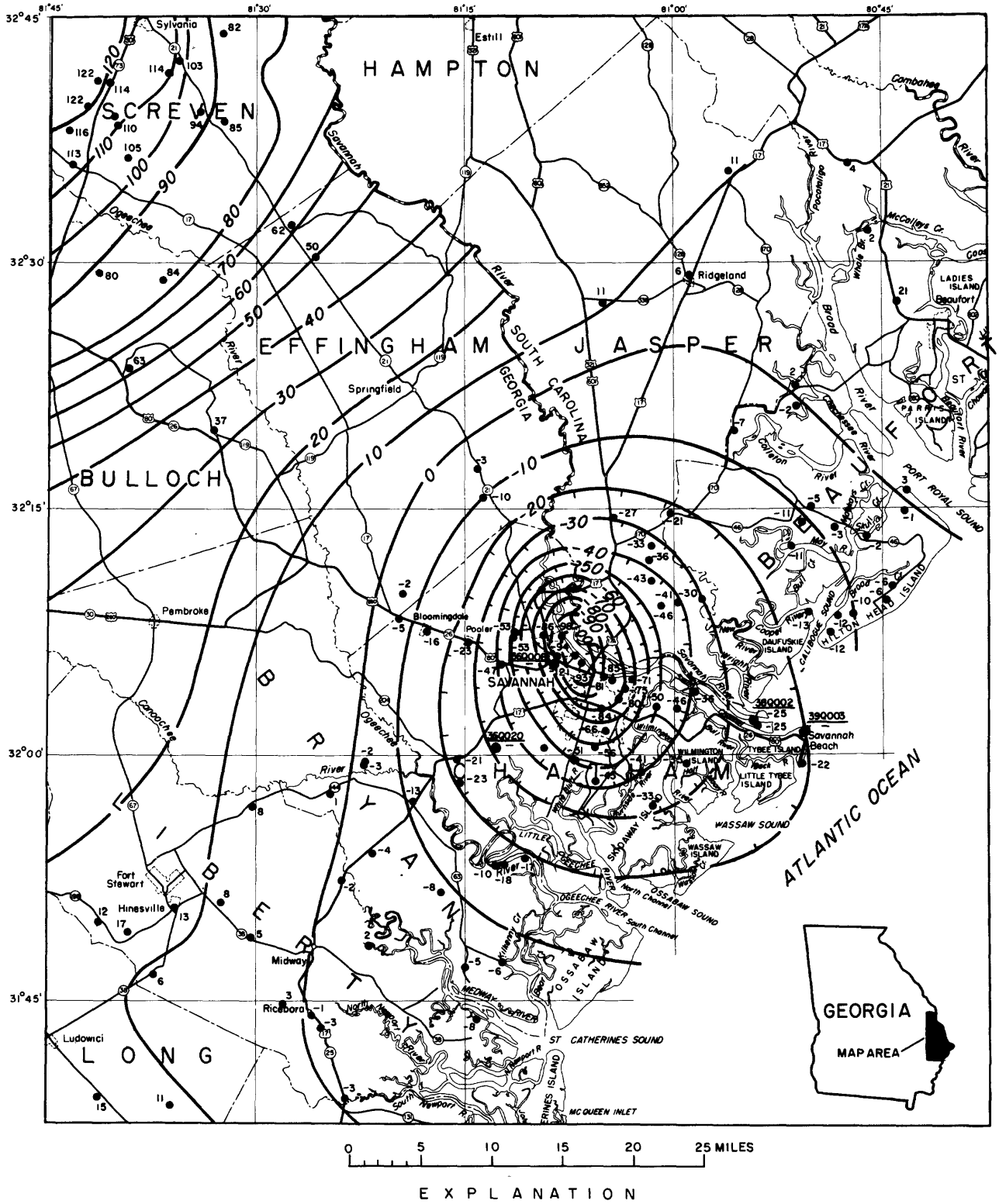

Figure 2.7.4.1—1.——Observation well locations and the water level in the principal artesian aquifer in the Savannah area, November 1982.

36Q008 LAYNE-ATLANTIC CHATHAM COUNTY

320530081085001 Local number, 36Q008.
LOCATION.--Lat 32°05'30", long 81°08'50", Hydrologic Unit 03060204, 0.19 mi southeast of intersection of Alfred Street and U.S. Highway 80.
Owner: Layne-Atlantic Co.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused industrial well, diameter 4 in., depth 406 ft, cased to 250 ft, open hole.
DATUM.--Altitude of land-surface datum is 9.91 ft.
Measuring point: Top of 3 in. casing, 1.0 ft above land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, January 1-11 and November 19 to December 14, were estimated.
PERIOD OF RECORD.--February 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.17 ft below land-surface datum, July 11, 1954; lowest, 124.40 ft below land-surface datum, August 30, 1980.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	79.40	101.50	105.30	87.35	100.80	101.80	106.60	106.45	107.10	103.80	103.30	107.58
2	80.95	103.60	104.30	85.90	100.70	102.00	106.90	106.50	108.40	103.75	103.20	107.02
3	82.60	103.90	104.50	83.90	101.10	101.80	105.30	107.10	109.00	103.95	103.50	106.46
4	84.75	103.70	104.60	83.00	100.10	101.60	103.40	107.30	108.50	104.40	103.80	105.39
5	86.90	103.70	103.45	84.25	100.25	101.60	102.80	107.30	106.80	104.45	104.00	106.83
6	88.55	103.00	103.20	88.50	100.90	101.50	104.30	108.20	105.30	104.60	104.20	107.77
7	90.30	102.60	103.30	90.90	101.10	101.70	105.70	106.60	105.70	104.65	102.40	108.20
8	91.85	102.90	103.60	92.20	101.10	102.90	106.50	104.00	106.50	105.05	101.90	107.14
9	93.30	104.00	103.50	93.60	101.15	104.45	106.60	104.70	106.10	105.50	104.30	106.08
10	95.15	104.40	103.30	93.70	101.30	105.60	106.10	106.00	105.65	105.25	105.50	104.01
11	97.80	105.70	103.10	94.15	101.90	106.10	105.30	105.70	103.50	104.60	106.40	102.95
12	101.30	106.30	103.10	96.00	102.30	105.10	105.00	105.60	101.10	104.70	107.20	105.39
13	102.50	106.10	103.25	96.90	102.20	104.10	105.00	105.80	101.80	104.50	107.00	104.83
14	101.60	105.50	103.10	97.30	102.40	104.60	105.90	105.70	103.40	103.90	105.10	102.26
15	102.10	105.30	103.15	97.90	102.40	104.90	106.45	105.20	103.90	104.25	106.00	101.50
16	102.55	105.20	104.10	98.60	102.45	104.60	106.40	105.30	104.00	104.70	107.70	101.50
17	102.80	105.80	103.70	99.20	102.70	104.60	106.00	106.00	104.40	104.50	108.70	101.50
18	103.15	106.60	103.80	99.30	102.85	103.30	103.90	106.25	104.30	104.25	109.40	99.90
19	103.80	106.70	105.30	99.10	102.60	103.60	103.50	106.60	104.30	104.80	109.84	97.60
20	103.90	106.40	104.65	99.20	102.60	104.50	104.50	107.10	104.20	105.20	109.97	98.20
21	102.90	105.60	104.30	99.70	102.60	105.50	104.90	105.85	104.00	105.30	109.71	97.90
22	102.85	105.40	103.95	100.70	102.60	105.60	105.30	103.60	104.18	105.60	109.65	93.20
23	102.85	106.00	103.40	101.10	102.40	105.20	105.45	103.60	104.30	103.60	110.59	88.80
24	101.90	105.90	104.20	101.00	102.15	104.80	105.30	105.30	104.10	101.20	113.02	84.80
25	101.45	105.90	105.35	101.20	102.20	104.60	105.60	106.00	103.00	101.30	112.46	80.80
26	101.65	106.00	106.15	98.70	101.70	104.85	105.60	105.75	101.00	103.60	111.40	78.20
27	102.40	105.60	104.90	98.70	101.55	104.50	105.70	105.40	101.60	103.70	110.33	77.00
28	102.30	105.30	101.30	100.40	101.80	104.50	105.95	104.00	103.30	104.70	108.27	80.70
29	102.40	---	95.60	100.90	102.00	104.70	106.25	102.30	103.25	104.70	108.21	85.20
30	101.85	---	91.80	100.70	102.00	105.60	107.20	103.10	103.40	103.75	107.64	88.10
31	100.60	---	89.20	---	101.50	---	106.65	105.15	---	103.40	---	88.90
MEAN	97.37	104.95	102.79	95.47	101.79	104.01	105.49	105.60	104.54	104.25	107.16	97.60

CAL YR 1982 MEAN 102.56 HIGH 77.00 LOW 113.02

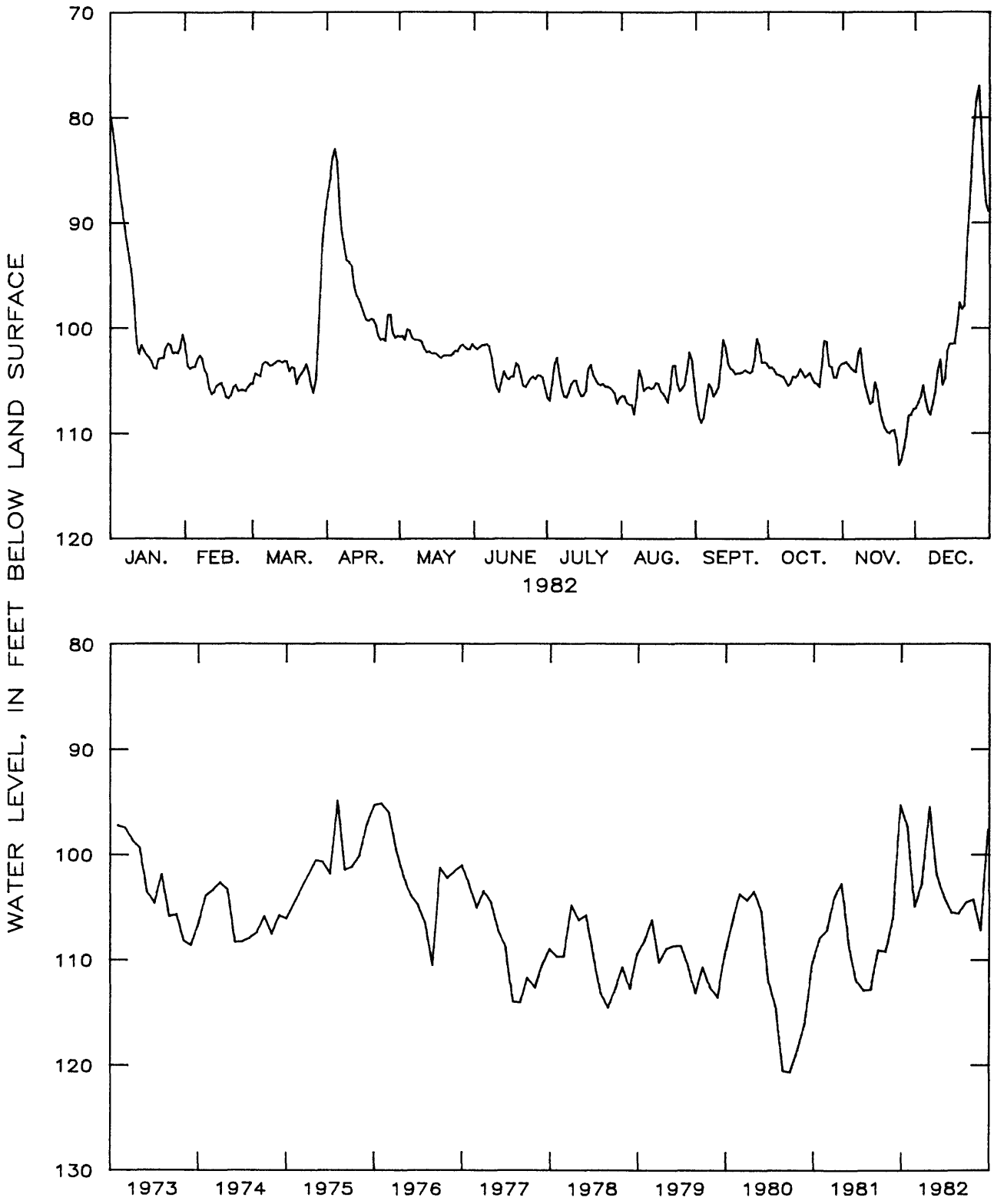

Figure 2.7.4.1—2.——Water level in observation well 36Q008, Chatham County.

36Q020 MORRISON CHATHAM COUNTY

320021081124801 Local number, 36Q020.
LOCATION.--Lat 32°00'21", long 81°12'48", Hydrologic Unit 03060204, 2.7 mi south of intersection of U.S. Highway 17 with Dean Forest Road.
Owner: H. J. Morrison.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused domestic well, diameter 3 in., depth 365 ft, cased to 330 ft, open hole.
DATUM.--Altitude of land-surface datum is 13 ft.
Measuring point: Floor of recorder shelter, 3.88 ft above land-surface datum.
REMARKS.--Water levels for period of missing recorder record, May 1-3, were estimated.
PERIOD OF RECORD.--March 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.66 ft below land-surface datum, June 28, 1958; lowest, 49.15 ft below land-surface datum, September 6 and 7, 1980.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	43.85	44.60	44.57	44.08	42.75	44.50	45.35	45.10	45.20	44.50	44.10	43.85
2	43.95	44.55	44.50	43.95	42.60	44.55	45.40	45.00	45.10	44.45	43.95	43.85
3	43.80	44.40	44.40	43.70	42.60	44.55	45.38	45.10	45.10	44.30	43.85	43.80
4	43.60	44.50	44.35	43.60	42.90	44.50	45.38	45.15	45.20	44.40	43.75	43.75
5	43.75	44.50	44.30	43.35	42.95	44.45	45.45	45.25	45.25	44.45	43.95	43.65
6	43.60	44.40	44.28	43.15	43.00	44.50	45.45	45.25	45.30	44.45	44.00	43.80
7	43.55	44.50	44.15	43.10	42.95	44.60	45.48	45.30	45.35	44.40	43.95	43.90
8	43.50	44.50	44.50	42.95	42.90	44.60	45.50	45.35	45.25	44.35	43.90	43.95
9	43.40	44.30	44.53	42.95	43.05	44.65	45.35	45.35	45.25	44.30	43.90	43.85
10	43.55	44.30	44.40	43.00	43.10	44.65	45.30	45.45	45.20	44.35	43.95	43.75
11	43.65	44.42	44.27	43.05	43.15	44.80	45.25	45.35	45.15	44.40	43.90	43.55
12	43.95	44.35	44.20	43.10	43.35	44.90	45.20	45.25	45.20	44.35	43.85	43.45
13	43.85	44.35	44.20	43.10	43.50	45.00	45.20	45.10	45.15	44.25	43.95	43.70
14	43.95	44.50	44.25	43.10	43.70	45.10	45.10	45.00	45.00	44.20	43.90	43.65
15	44.35	44.48	44.20	43.00	43.85	45.20	45.10	45.00	44.90	44.25	43.95	43.40
16	44.45	44.30	44.18	43.00	44.05	45.25	45.03	45.00	44.85	44.35	43.95	43.33
17	44.65	44.15	44.20	43.10	44.15	45.30	44.95	44.95	44.85	44.40	43.85	43.33
18	44.70	44.30	44.20	43.10	44.20	45.25	44.85	44.85	44.85	44.40	43.85	43.33
19	44.65	44.32	44.15	43.00	44.30	45.25	44.75	44.95	44.85	44.35	43.95	43.20
20	44.65	44.30	44.10	43.00	44.25	45.25	44.75	45.00	44.85	44.25	44.00	43.18
21	44.70	44.20	44.15	43.05	44.30	45.30	44.75	45.00	44.80	44.20	44.02	43.23
22	44.75	44.40	44.25	43.00	44.40	45.30	44.75	45.00	44.83	44.25	44.00	43.27
23	44.60	44.45	44.18	43.05	44.45	45.25	44.75	45.05	44.90	44.25	44.00	43.25
24	44.60	44.45	44.15	43.05	44.45	45.25	44.80	45.05	44.80	44.20	44.10	43.13
25	44.60	44.55	44.05	42.85	44.40	45.25	44.80	45.00	44.65	44.20	44.35	43.05
26	44.65	44.60	44.15	42.85	44.40	45.30	44.85	45.05	44.55	44.25	44.30	42.82
27	44.80	44.50	44.32	42.90	44.40	45.35	44.85	45.15	44.65	44.25	44.20	42.55
28	44.75	44.55	44.40	42.85	44.45	45.30	44.85	45.20	44.70	44.20	44.10	42.23
29	44.75	---	44.35	42.80	44.60	45.20	45.00	45.30	44.60	44.15	43.90	42.10
30	44.65	---	44.30	42.70	44.65	45.15	45.08	45.25	44.60	44.15	43.90	41.73
31	44.45	---	44.25	---	44.65	---	45.08	45.20	---	44.15	---	41.63
MEAN	44.22	44.42	44.27	43.12	43.76	44.98	45.09	45.13	44.96	44.30	43.98	43.27

CAL YR 1982 MEAN 44.29 HIGH 41.63 LOW 45.50

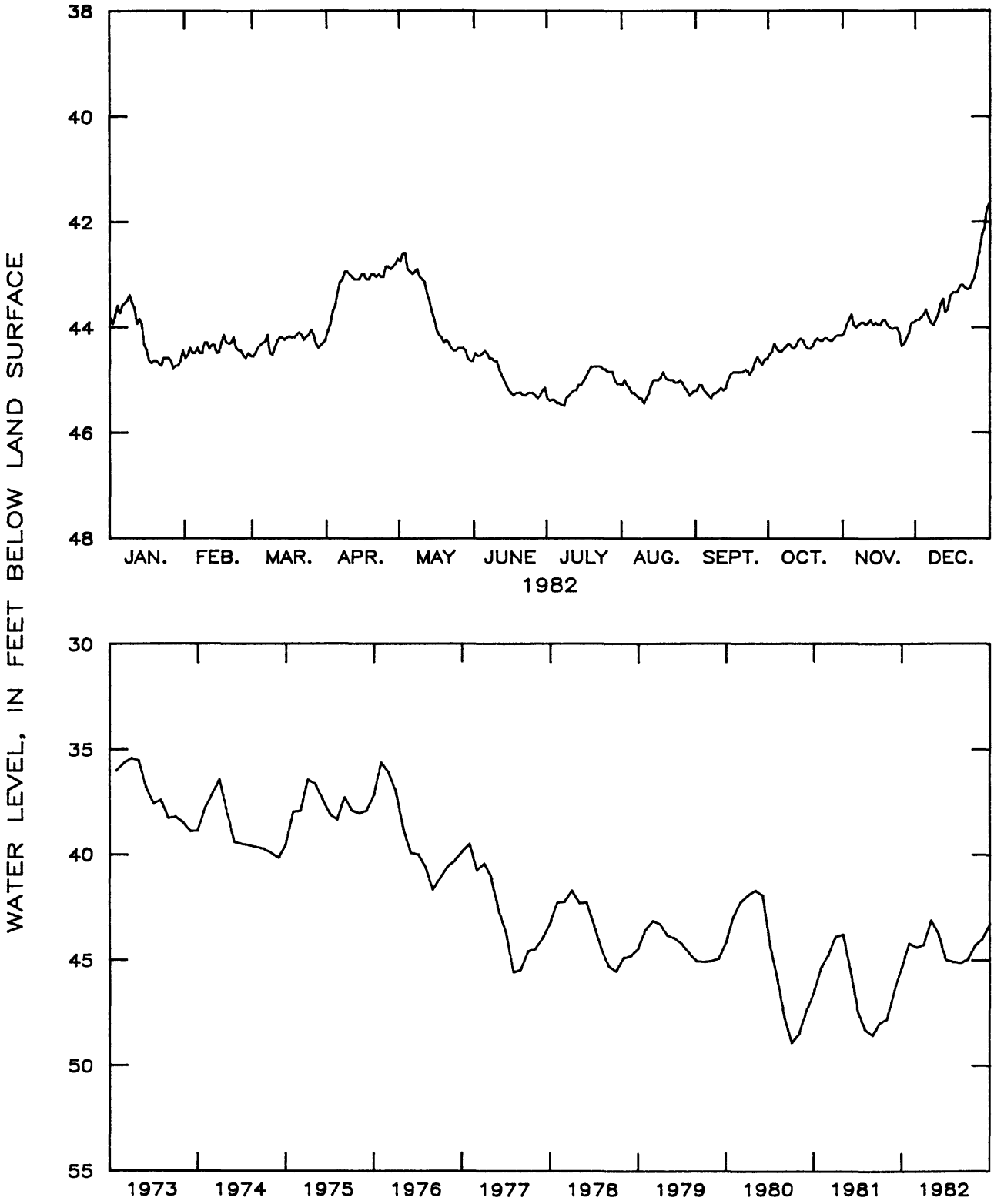

Figure 2.7.4.1—3.——Water level in observation well 36Q020, Chatham County.

38Q002 PILOT HOUSE CHATHAM COUNTY

320202080541201 Local number, 38Q002.
LOCATION.--Lat 32°02'02", long 80°54'12", Hydrologic Unit 03060204, Cockspur Island, near pilot house.
Owner: U.S. Department of the Interior, National Park Service.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.—Drilled observation well, diameter 8 in., depth 348 ft, cased to 110 ft, open hole.
DATUM.--Altitude of land-surface datum is 8.0 ft.
Measuring point: Floor of recorder shelter, 3.62 ft above land-surface datum.
REMARKS.--Borehole geophysical survey conducted June 16, 1961. Water levels for period of missing recorder record, May 1-3, were estimated.
PERIOD OF RECORD.--February 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 16.0 ft below land-surface datum, March 5, 1956; lowest, 35.60 ft below land-surface datum, September 2-6, 1980.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	32.20	32.00	31.30	31.60	30.79	32.20	32.60	32.55	32.60	31.90	31.70	31.70
2	32.15	31.80	31.40	31.50	30.68	32.20	32.50	32.30	32.60	31.80	31.60	31.70
3	32.00	31.70	31.30	31.55	30.71	32.20	32.60	32.20	32.85	31.80	31.50	31.70
4	32.10	31.85	31.15	31.75	31.05	32.20	32.60	32.30	32.80	32.00	31.40	31.60
5	32.30	31.75	31.20	31.40	31.00	32.20	32.50	32.40	32.50	32.00	31.80	31.45
6	32.05	31.70	31.10	31.50	31.15	32.20	32.50	32.50	32.60	32.00	31.70	31.60
7	31.95	31.80	31.00	31.55	31.15	32.30	32.65	32.60	32.70	31.90	31.60	31.60
8	31.85	31.60	31.50	31.35	31.10	32.40	32.70	32.65	32.50	31.90	31.55	31.50
9	31.50	31.50	31.50	31.30	31.15	32.35	32.75	32.80	32.50	31.90	31.70	31.50
10	31.90	31.65	31.45	31.40	31.20	32.35	32.70	32.90	32.50	31.80	31.70	31.40
11	31.60	31.60	31.35	31.30	31.25	32.30	32.80	32.90	32.50	31.70	31.70	31.15
12	31.80	31.50	31.30	31.40	31.35	32.30	32.80	32.80	32.60	31.65	31.60	31.20
13	31.55	31.60	31.40	31.45	31.50	32.50	32.80	32.70	32.60	31.75	31.75	31.20
14	31.60	31.70	31.40	31.40	31.55	32.70	32.65	32.65	32.50	31.80	31.50	31.30
15	32.00	31.70	31.30	31.25	31.60	32.70	32.55	32.50	32.40	31.80	31.60	31.20
16	31.85	31.60	31.30	31.20	31.60	32.80	32.50	32.50	32.35	31.80	31.45	31.30
17	32.00	31.35	31.40	31.35	31.81	32.90	32.25	32.50	32.30	31.80	31.30	31.20
18	32.00	31.35	31.45	31.35	31.90	32.70	32.25	32.45	32.30	31.90	31.35	31.10
19	31.95	31.40	31.40	31.20	31.95	32.60	32.25	32.60	32.40	31.90	31.35	31.00
20	32.00	31.30	31.35	31.20	31.95	32.55	32.25	32.80	32.45	31.90	31.30	31.25
21	31.90	31.25	31.35	31.20	31.85	32.60	32.25	32.85	32.30	31.90	31.40	31.30
22	31.70	31.20	31.40	31.10	31.85	32.50	32.25	32.80	32.40	31.90	31.40	31.20
23	31.65	31.30	31.20	31.00	31.90	32.60	32.40	32.80	32.30	31.60	31.40	31.20
24	31.90	31.40	31.00	31.10	32.00	32.40	32.42	32.90	32.20	31.60	31.70	31.30
25	31.95	31.30	31.00	30.85	31.90	32.50	32.50	32.80	32.10	31.80	31.70	31.30
26	31.95	31.15	31.30	30.90	31.90	32.50	32.40	32.80	32.00	31.90	31.80	31.20
27	31.95	31.30	31.40	31.00	31.95	32.60	32.40	32.70	32.20	31.90	31.80	31.10
28	32.00	31.40	31.30	30.90	31.95	32.70	32.40	32.80	32.20	31.70	31.60	31.00
29	32.00	---	31.40	30.70	32.05	32.70	32.50	32.60	32.20	31.70	31.75	30.90
30	31.90	---	31.50	30.70	32.20	32.60	32.60	32.70	31.90	31.80	31.70	30.75
31	31.75	---	31.50	---	32.25	---	32.60	32.70	---	31.80	---	30.60
MEAN	31.90	31.53	31.32	31.25	31.56	32.48	32.51	32.65	32.41	31.83	31.58	31.27

CAL YR 1982 MEAN 31.86 HIGH 30.60 LOW 32.90

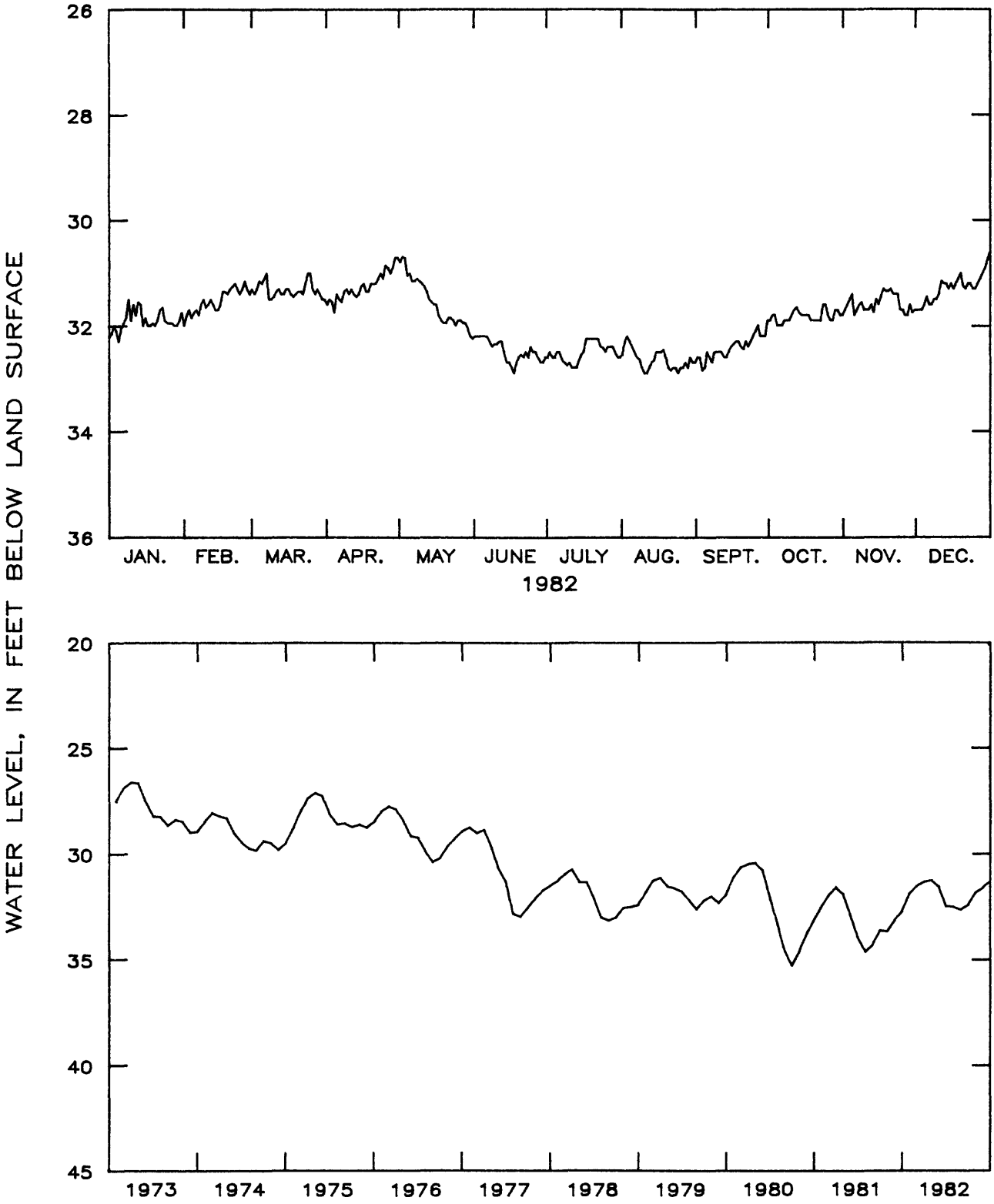

Figure 2.7.4.1—4.——Water level in observation well 38Q002, Chatham County.

39Q003 TEST WELL 7 CHATHAM COUNTY

320122080510202 Local number, 39Q003.
LOCATION.—Lat 32°01'22", long 80°51'02", Hydrologic Unit 03060204, Tybee Island near Fort Screven.
Owner: U.S. Geological Survey, test well 7.
AQUIFER.—Principal artesian aquifer.
WELL CHARACTERISTICS.—Drilled observation well, diameter 10 in., depth 600 ft, cased to 129 ft, open hole.
DATUM.—Altitude of land-surface datum is 7.0 ft.
Measuring point: Top of 10 in. casing, 2.0 ft above land-surface datum.
REMARKS.—Borehole geophysical survey conducted January 24, 1962. Water levels for periods of missing recorder record, May 1-3 and September 30, were estimated.
PERIOD OF RECORD.—May 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 17.8 ft below land-surface datum, April 11, 1963; lowest, 29.65 ft below land-surface datum, July 27, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	26.70	26.55	25.75	26.20	25.44	26.65	27.05	27.50	27.20	26.40	26.20	26.20
2	26.55	26.30	25.85	26.10	25.38	26.90	27.20	26.95	27.30	26.35	26.10	26.25
3	26.45	26.30	25.80	26.25	25.46	26.95	27.50	26.95	27.20	26.25	25.90	26.20
4	26.85	26.45	25.60	26.50	25.85	27.00	27.70	27.20	27.50	26.35	25.75	26.05
5	26.75	26.33	25.65	25.95	25.75	27.00	27.30	27.25	27.20	26.55	26.35	25.85
6	26.75	26.15	25.60	26.15	25.90	27.00	27.30	27.20	27.35	26.60	26.15	26.05
7	26.65	26.35	25.60	26.25	26.00	26.95	27.60	27.40	27.20	26.55	25.95	26.05
8	26.45	26.20	26.20	25.95	25.95	27.10	27.55	27.35	26.70	26.50	25.95	25.80
9	26.40	26.15	26.00	26.00	25.85	27.05	27.50	27.40	27.00	26.50	26.10	25.80
10	26.80	26.25	26.00	26.10	25.85	27.05	27.50	27.60	27.10	26.05	26.20	25.70
11	26.90	26.15	25.90	26.00	26.00	26.95	27.50	27.50	27.20	26.10	26.15	25.50
12	26.60	26.00	25.80	26.20	26.15	26.95	27.45	27.50	27.26	26.15	26.10	25.75
13	26.55	26.10	25.95	26.15	26.35	27.25	27.40	27.20	27.28	25.90	26.40	25.65
14	26.50	26.25	25.95	26.15	26.40	27.30	27.25	27.15	27.28	26.30	25.90	25.70
15	26.90	26.30	25.80	25.95	26.50	27.25	27.20	27.20	27.20	26.20	26.05	25.60
16	26.65	26.20	25.75	25.90	26.45	27.50	27.20	27.10	26.90	26.30	25.80	25.80
17	26.75	25.90	25.90	26.10	26.60	27.35	27.10	27.10	26.80	26.25	25.65	25.70
18	26.65	25.85	26.00	26.15	26.55	27.05	27.05	27.60	27.10	26.35	25.70	25.60
19	26.60	25.95	25.90	25.90	26.70	27.25	26.95	27.15	26.95	26.30	25.70	25.45
20	26.65	25.80	25.95	25.95	26.65	27.15	26.95	27.45	27.00	26.30	25.70	25.70
21	26.40	25.75	25.90	26.00	26.55	27.15	26.95	27.50	26.95	26.35	25.75	25.70
22	26.25	25.70	26.00	25.85	26.90	27.15	27.10	27.55	27.00	26.25	25.75	25.55
23	26.30	25.80	25.65	25.75	26.70	27.20	27.15	27.50	26.70	25.85	25.75	25.65
24	26.55	26.00	25.40	26.10	26.70	26.95	27.15	27.60	26.85	25.85	26.15	25.75
25	26.55	25.95	25.50	25.70	26.15	26.95	27.20	27.60	26.60	26.25	26.05	25.85
26	26.60	25.55	25.80	25.75	26.45	27.10	27.15	27.45	26.20	26.40	26.25	25.80
27	26.50	25.85	25.90	25.65	26.50	27.15	27.05	27.25	26.80	26.20	26.30	25.70
28	26.55	25.90	25.75	25.65	26.65	27.30	27.10	27.50	26.70	26.10	26.15	25.60
29	26.60	---	25.85	25.30	26.85	27.35	27.45	27.20	26.65	26.15	26.25	25.35
30	26.50	---	26.00	25.30	26.95	27.15	27.50	27.10	26.52	26.25	26.25	25.50
31	26.30	---	26.15	---	26.95	---	27.75	27.40	---	26.25	---	25.10
MEAN	26.59	26.07	25.83	25.97	26.29	27.10	27.28	27.34	26.99	26.26	26.02	25.74

CAL YR 1982 MEAN 26.46 HIGH 25.10 LOW 27.75

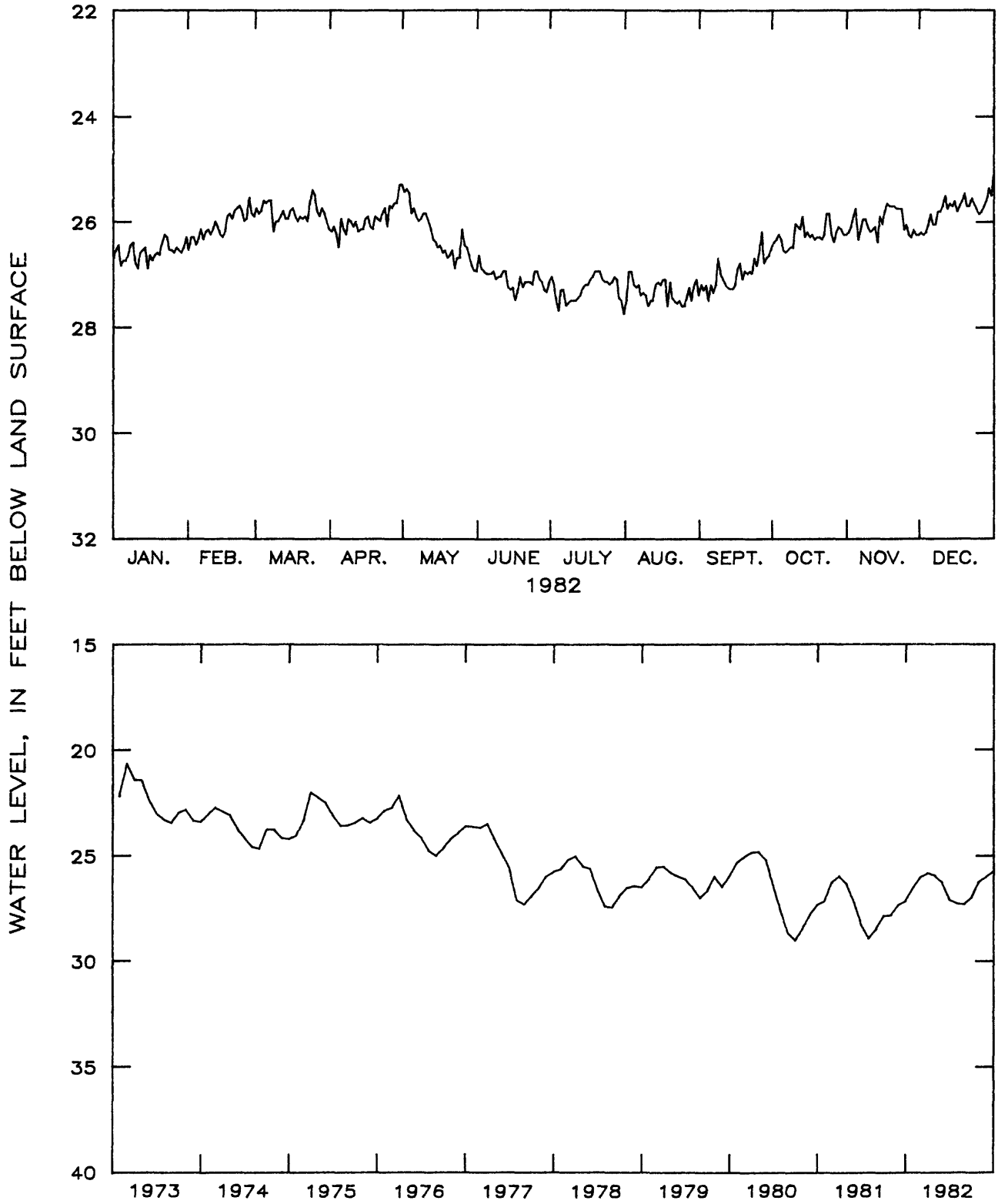

Figure 2.7.4.1–5.--Water level in observation well 39Q003, Chatham County.

2.7.4.2 Jesup-Riceboro area

Ground-water levels in the principal artesian aquifer are affected by industrial pumpage of about 75 Mgal/d in the Jesup area and about 9 Mgal/d at Riceboro. Reductions in industrial pumpage during 1982 allowed water levels to recover significantly from the record lows in 1981. The 1982 hydrographs illustrate the effects that partial industrial shutdowns have on water levels in these areas.

Mean annual water levels in the Jesup-Riceboro area were from 0.8 foot to 3.0 feet higher in 1982 than in 1981.

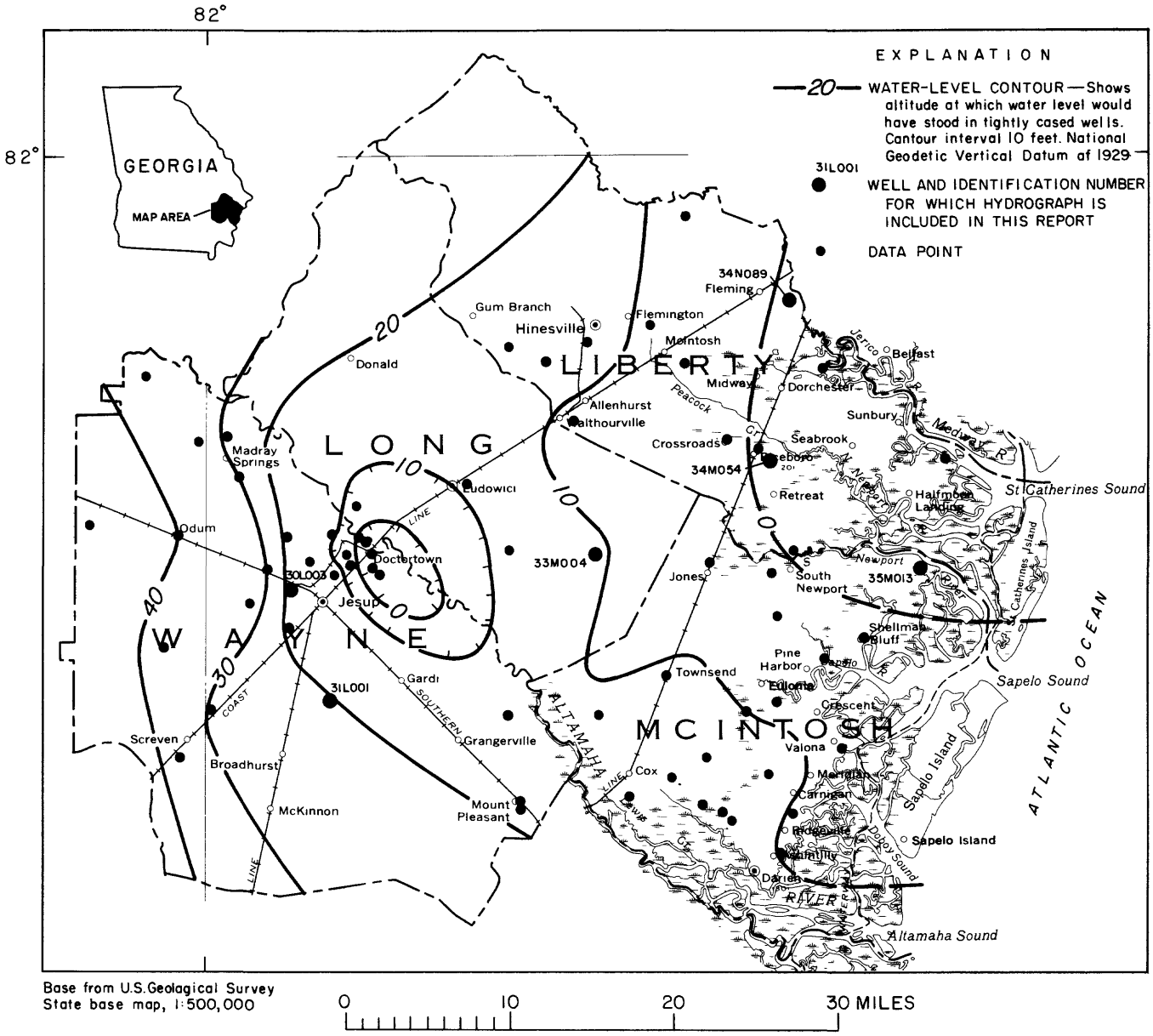

Figure 2.7.4.2–1.——Observation well locations and the water level in the principal artesian aquifer in the Jesup–Riceboro area, November 1982.

30L003 JOHNSON WAYNE COUNTY

313701081543501 Local number, 30L003.
LOCATION.—Lat 31°37'01", long 81°54'35", Hydrologic Unit 03070106, about 0.5 mi west of Jesup city limits near intersection of Highway 341 and Sunset Drive.
Owner: Homer Johnson.
AQUIFER.—Principal artesian aquifer.
WELL CHARACTERISTICS.—Drilled unused domestic well, diameter 4 in., depth 584 ft, cased to 472 ft, open hole.
DATUM.—Altitude of land-surface datum is 107 ft.
Measuring point: Floor of recorder shelter, 2.88 ft above land-surface datum.
REMARKS.—Borehole geophysical survey conducted August 19, 1963. Water levels for periods of missing recorder record, June 26-28, July 6 to August 2, August 25-30, and December 26-31, were estimated.
PERIOD OF RECORD.—January 1964 to March 1967. February 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 59.98 ft below land-surface datum, April 19, 1964; lowest 85.27 ft below land-surface datum, June 29, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	74.75	81.94	82.16	78.18	81.42	80.74	76.80	81.00	74.26	80.22	80.71	77.90
2	74.64	81.92	81.63	78.90	81.40	80.97	76.30	81.04	74.07	80.32	80.64	77.84
3	74.43	81.80	81.15	79.31	81.21	81.12	75.83	81.10	74.01	80.43	80.64	77.80
4	74.30	81.96	80.90	79.61	81.27	81.20	75.38	81.14	73.91	80.48	80.68	77.67
5	75.36	82.01	80.74	79.72	81.40	81.17	75.10	81.22	73.70	80.50	80.86	77.49
6	76.62	82.06	80.66	79.92	81.50	81.12	75.44	81.22	73.57	80.62	80.95	77.44
7	77.54	82.24	80.51	80.24	81.42	81.10	76.06	81.08	73.44	80.62	80.94	77.52
8	78.27	82.24	80.75	80.24	81.32	80.97	76.61	80.99	74.00	80.58	80.94	77.52
9	78.89	82.00	80.80	80.29	81.48	80.80	76.93	81.01	74.98	80.54	81.02	77.32
10	79.47	81.88	80.75	80.55	81.61	80.68	77.15	80.99	75.70	80.50	81.04	76.76
11	79.98	82.01	80.65	80.59	81.70	80.66	77.40	81.02	76.18	80.58	81.03	76.01
12	80.28	82.02	80.56	80.70	81.82	80.73	77.69	81.11	76.56	80.64	80.94	75.54
13	80.14	82.06	80.60	80.74	81.94	80.76	78.01	81.24	77.00	80.54	80.99	75.44
14	80.10	82.20	80.63	80.82	82.04	80.80	78.34	81.20	77.62	80.47	80.99	74.91
15	80.46	82.15	80.58	80.98	82.04	80.96	78.58	81.15	78.19	80.49	80.67	74.18
16	80.68	81.94	80.57	81.10	82.10	81.12	78.86	81.06	78.70	80.39	80.16	73.56
17	80.86	81.70	80.52	81.20	82.09	81.02	79.03	80.96	79.18	80.60	79.63	73.18
18	81.00	81.78	80.55	81.26	82.07	80.68	79.18	80.89	79.51	80.80	79.22	72.85
19	81.14	81.87	80.51	81.24	82.17	80.58	79.27	81.48	79.68	80.85	78.92	72.45
20	81.24	81.78	80.33	81.14	82.15	80.64	79.41	81.10	79.79	80.78	78.72	72.14
21	81.02	81.68	80.21	81.20	82.18	80.62	79.56	81.05	79.91	80.80	78.66	71.96
22	80.88	81.94	79.52	81.27	82.25	80.58	79.67	80.87	80.02	80.82	78.58	71.78
23	80.69	82.16	78.38	81.29	82.28	80.56	79.82	80.57	80.08	80.75	78.48	71.55
24	80.84	82.16	77.42	81.28	82.11	80.54	80.02	79.80	80.09	80.71	78.47	71.35
25	81.20	82.52	76.67	81.23	81.70	80.54	80.21	78.75	80.07	80.78	78.55	71.29
26	81.48	82.42	76.12	81.12	81.33	80.16	80.38	77.76	79.97	80.86	78.44	71.18
27	81.76	82.32	75.77	81.16	81.17	79.81	80.53	76.93	80.03	80.80	78.26	71.07
28	81.88	82.30	75.44	81.24	81.14	79.09	80.66	76.21	80.22	80.62	78.11	70.97
29	81.96	---	75.14	81.33	81.07	78.09	80.79	75.60	80.20	80.44	77.99	70.91
30	81.94	---	75.75	81.39	80.90	77.46	80.93	75.02	80.25	80.64	77.96	71.01
31	81.80	---	77.10	---	80.74	---	80.94	74.47	---	80.70	---	70.98
MEAN	79.54	82.04	79.45	80.64	81.65	80.51	78.42	79.97	77.50	80.61	79.77	74.18

CAL YR 1982 MEAN 79.50 HIGH 70.91 LOW 82.52

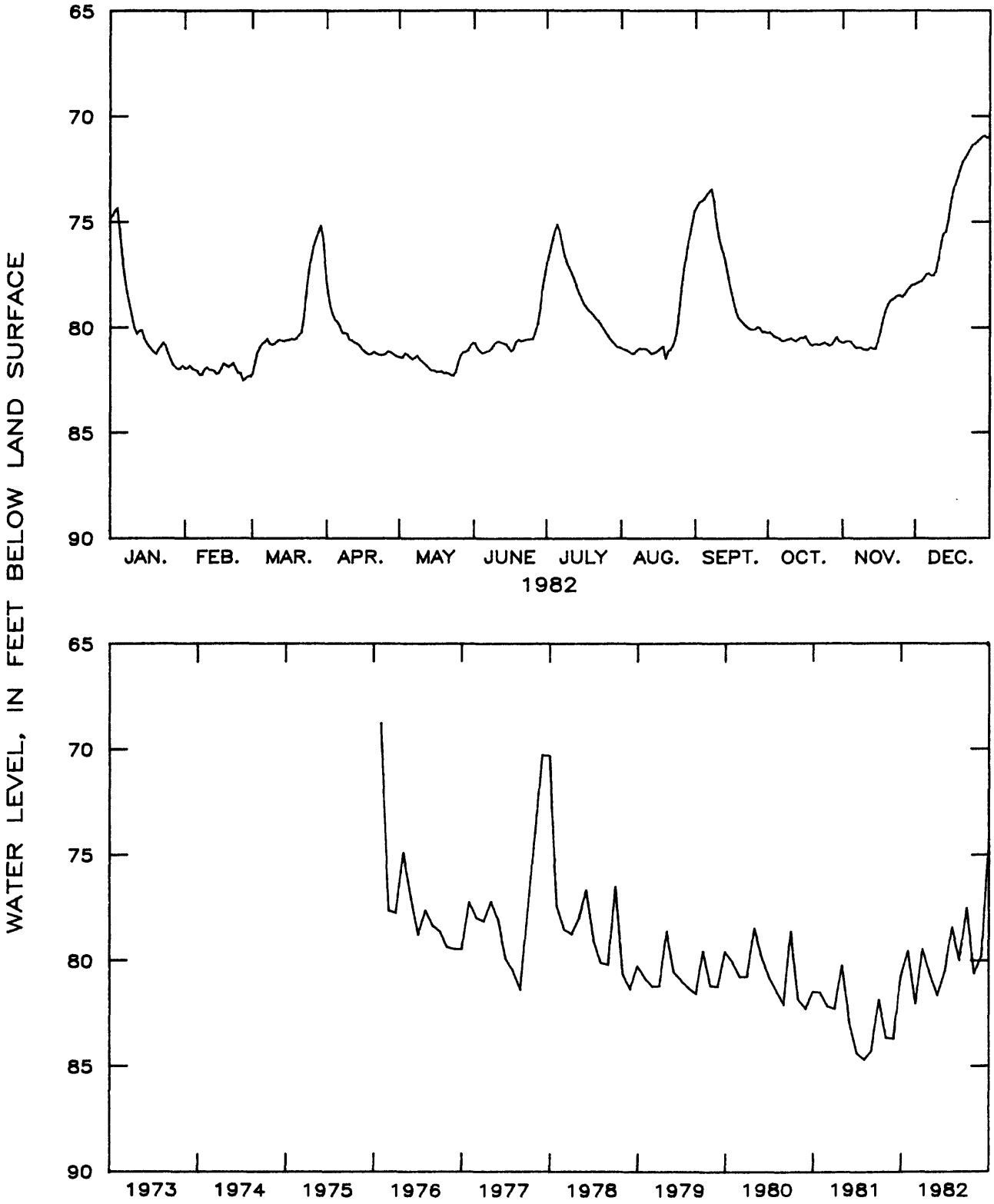

Figure 2.7.4.2–2.––Water level in observation well 30L003, Wayne County.

31L001 MEARS 2 WAYNE COUNTY

313055081521901 Local number, 31L001.
LOCATION.--Lat 31°31'02", long 81°52'22", Hydrologic Unit 03070106, about 6 mi south of Jesup near Penholoway Creek on Walker Creek.
Owner: Brunswick Pulp and Paper, Justice Mears 2.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused oil test well, diameter 6 in., depth 691 ft, cased to 587 ft, open hole.
DATUM.--Altitude of land-surface datum is 55 ft.
Measuring point: Top of 6 in. casing at land-surface datum.
REMARKS.--Well pumped and water quality sampled, August 2, 1978.
PERIOD OF RECORD.--February 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.30 ft below land-surface datum, December 16, 1977; lowest, 29.23 ft below land-surface datum, June 29, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	21.64	26.47	26.67	23.16	25.84	25.62	23.14	25.62	20.94	24.58	24.98	23.30
2	21.54	26.48	26.40	23.64	25.84	25.72	22.76	25.59	20.75	24.60	24.92	23.26
3	21.32	26.40	26.13	23.96	25.71	25.84	22.36	25.58	20.59	24.67	24.88	23.21
4	21.18	26.52	25.89	24.24	25.74	25.90	21.96	25.60	20.52	24.70	24.92	23.09
5	21.70	26.56	25.74	24.30	25.82	25.84	21.68	25.68	20.48	24.77	25.09	22.94
6	22.38	26.56	25.64	24.51	25.89	25.88	21.95	25.67	20.41	24.82	25.19	22.95
7	22.98	26.68	25.52	24.80	25.83	25.92	22.50	25.64	20.31	24.82	25.20	23.02
8	23.49	26.66	25.80	24.77	25.73	25.84	22.97	25.58	20.44	24.77	25.17	23.06
9	23.88	26.46	25.81	24.83	25.84	25.80	23.22	25.58	20.86	24.73	25.23	22.92
10	24.32	26.44	25.70	25.06	25.97	25.74	23.37	25.57	21.27	24.74	25.28	22.60
11	24.74	26.56	25.58	25.10	26.08	25.78	23.55	25.59	21.61	24.78	25.26	22.06
12	24.96	26.50	25.50	25.20	26.15	25.80	23.76	25.57	21.92	24.82	25.17	21.58
13	24.84	26.52	25.48	25.22	26.25	25.82	24.01	25.60	22.18	24.77	25.22	21.60
14	24.82	26.66	25.50	25.24	26.30	25.84	24.27	25.60	22.47	24.73	25.24	21.25
15	25.19	26.58	25.44	24.89	26.38	25.90	24.44	25.61	22.80	24.75	25.14	20.66
16	25.37	26.40	25.44	25.50	26.42	25.96	24.64	25.64	23.12	24.74	24.94	20.12
17	25.54	26.22	25.40	25.58	26.46	25.91	24.74	25.50	23.44	24.91	24.62	19.80
18	25.69	26.33	25.44	25.60	26.41	25.70	24.82	25.44	23.70	25.06	24.36	19.56
19	25.76	26.40	25.40	25.63	26.51	25.65	24.84	25.48	23.85	25.07	24.18	19.20
20	25.86	26.31	25.25	25.59	26.54	25.69	24.90	25.58	23.98	25.05	24.03	18.96
21	25.80	26.17	25.18	25.64	26.54	25.69	24.98	25.52	24.09	24.98	23.91	18.82
22	25.80	26.40	24.92	25.74	26.60	25.68	25.02	25.45	24.22	25.02	23.79	18.70
23	25.64	26.58	24.24	25.86	26.62	25.64	25.10	25.38	24.36	25.02	23.68	18.51
24	25.70	26.54	23.53	25.76	26.54	25.61	25.22	24.95	24.40	24.98	23.73	18.31
25	25.89	26.65	22.94	25.66	26.30	25.62	25.34	24.14	24.36	25.04	23.83	18.20
26	26.10	26.78	22.53	25.56	26.15	25.51	25.44	23.39	24.28	25.12	23.74	18.04
27	26.34	26.66	22.28	25.54	26.00	25.42	25.52	22.80	24.41	25.15	23.58	17.88
28	26.42	26.68	22.02	25.66	25.96	24.97	25.57	22.31	24.55	25.07	23.42	17.73
29	26.47	---	21.76	25.75	25.92	24.24	25.63	21.94	24.58	24.94	23.31	17.62
30	26.43	---	21.96	25.86	25.82	23.57	25.70	21.60	24.62	24.98	23.32	17.66
31	26.30	---	22.58	---	25.70	---	25.64	21.29	---	25.02	---	17.58
MEAN	24.65	26.51	24.76	25.13	26.12	25.60	24.16	24.85	22.65	24.88	24.51	20.46

CAL YR 1982 MEAN 24.51 HIGH 17.58 LOW 26.78

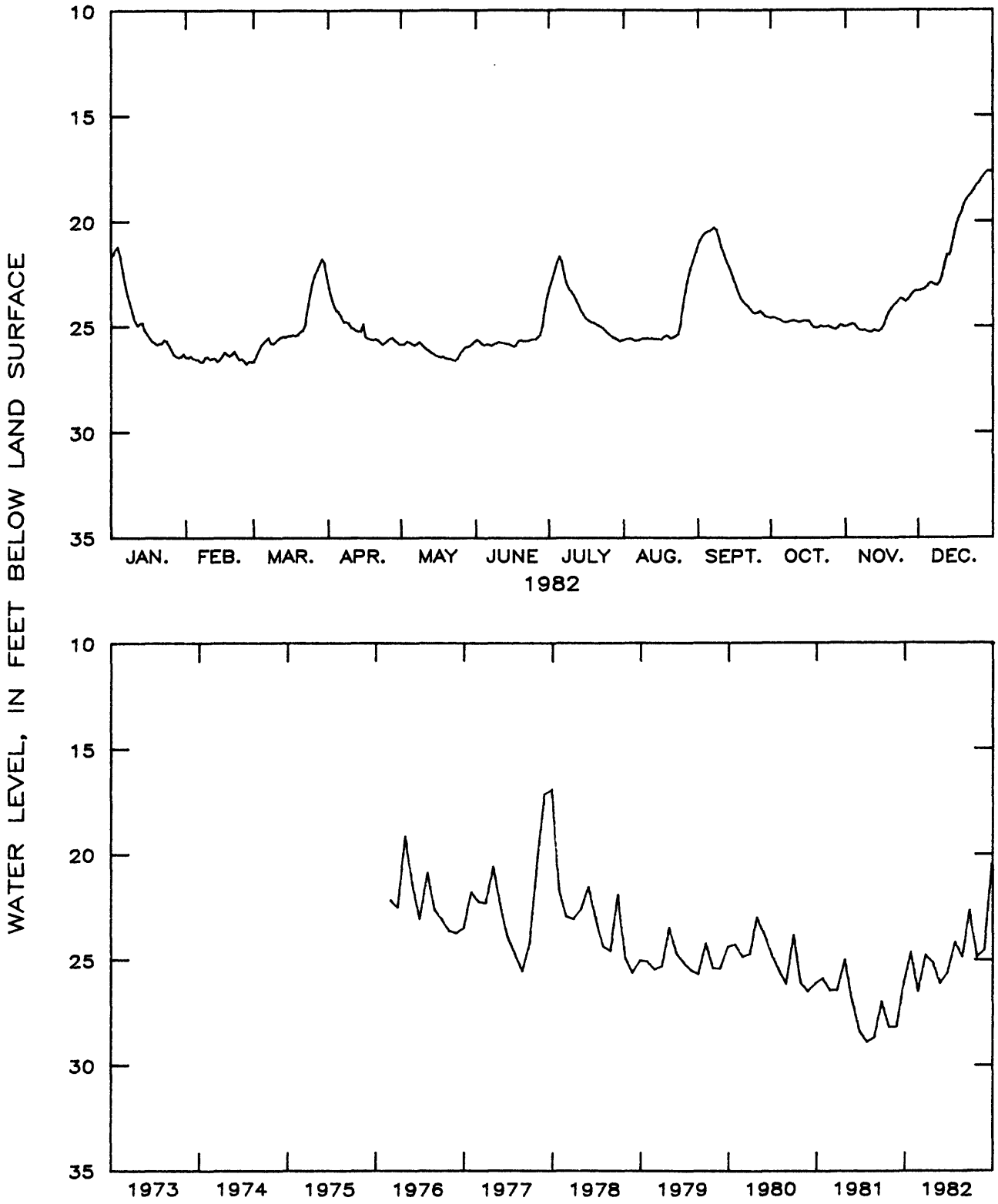

Figure 2.7.4.2–3.––Water level in observation well 31L001, Wayne County.

33M004 TEST WELL 3 LONG COUNTY

313844081361401 Local number, 33M004.
LOCATION.--Lat 31°38'44", long 81°36'14", Hydrologic Unit 03070106, 9 mi southeast of Ludowici, at Hope Cemetery.
Owner: U.S. Geological Survey, test well 3.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4-3 in, depth 872 ft, cased to 538 ft, open hole.
DATUM.--Altitude of land-surface datum is 61.2 ft.
Measuring point: Top of recorder shelter, 3.5 ft above land-surface datum.
REMARKS.--Well pumped and sounded June 17, 1976, to depth of 861 ft; water-quality sample collected. Borehole geophysical survey conducted July 28, 1976. Water levels for periods of missing recorder record, June 26-28 and December 19-31, were estimated.
PERIOD OF RECORD.--January 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.04 ft below land-surface datum, January 14, 1968; lowest, 53.22 ft below land-surface datum, July 27, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	49.83	50.92	51.45	49.46	50.70	50.92	49.89	50.11	49.08	49.06	49.63	49.14
2	49.78	50.94	51.37	49.40	50.70	50.92	49.77	50.04	48.82	49.02	49.56	49.14
3	49.60	50.88	51.27	49.34	50.68	50.92	49.53	50.03	48.60	49.07	49.52	49.10
4	49.34	51.00	51.18	49.44	50.70	50.90	49.26	50.09	48.46	49.10	49.55	48.98
5	49.36	51.07	51.14	49.39	50.76	50.82	49.06	50.16	48.38	49.18	49.72	48.85
6	49.24	51.08	51.06	49.48	50.79	50.88	48.92	50.19	48.29	49.22	49.82	48.86
7	49.14	51.18	50.97	49.75	50.73	50.95	48.80	50.22	48.16	49.22	49.85	48.95
8	49.21	51.17	51.27	49.64	50.66	50.94	48.69	50.22	48.04	49.18	49.84	49.00
9	49.17	51.02	51.33	49.66	50.72	50.92	48.63	50.24	47.90	49.14	49.86	48.92
10	49.38	51.07	51.20	49.86	50.78	50.88	48.62	50.26	47.80	49.16	49.90	48.78
11	49.32	51.20	51.04	49.90	50.82	50.88	48.64	50.27	47.79	49.23	49.88	48.48
12	49.64	51.14	50.96	50.00	50.86	50.90	48.64	50.24	47.84	49.28	49.78	48.32
13	49.50	51.14	50.94	50.00	50.91	50.87	48.68	50.22	47.92	49.24	49.84	48.56
14	49.46	51.28	50.95	49.98	50.94	50.84	48.72	50.21	47.96	49.24	49.90	48.51
15	49.77	51.22	50.88	50.08	50.96	50.81	48.83	50.26	47.96	49.25	49.93	48.25
16	49.90	51.05	50.88	50.20	51.00	50.76	48.93	50.31	48.02	49.31	49.96	47.95
17	50.04	50.90	50.86	50.24	51.04	50.72	48.98	50.30	48.14	49.46	49.86	47.82
18	50.16	51.04	50.90	50.26	51.07	50.57	49.03	50.28	48.24	49.56	49.79	47.74
19	50.18	51.13	50.86	50.32	51.12	50.58	49.05	50.32	48.34	49.55	49.78	47.35
20	50.26	51.05	50.74	50.34	51.13	50.67	49.10	50.37	48.44	49.51	49.72	47.09
21	50.33	50.92	50.72	50.40	51.14	50.69	49.16	50.32	48.54	49.48	49.62	46.92
22	50.44	51.11	50.74	50.52	51.19	50.68	49.24	50.30	48.68	49.52	49.50	46.78
23	50.33	51.28	50.70	50.66	51.20	50.70	49.30	50.32	48.82	49.54	49.40	46.56
24	50.38	51.25	50.58	50.63	51.18	50.70	49.34	50.31	48.86	49.52	49.44	46.34
25	50.44	51.37	50.42	50.48	51.12	50.75	49.42	50.21	48.82	49.57	49.56	46.20
26	50.57	51.50	50.28	50.38	51.10	51.16	49.46	50.07	48.80	49.65	49.50	46.02
27	50.78	51.38	50.26	50.38	51.10	50.96	50.00	49.92	48.90	49.71	49.39	45.83
28	50.83	51.40	50.16	50.46	51.10	50.37	49.98	49.77	49.03	49.71	49.24	45.65
29	50.88	---	49.94	50.58	51.09	50.12	50.01	49.65	49.06	49.67	49.10	45.52
30	50.84	---	49.72	50.68	51.04	49.98	50.11	49.50	49.10	49.68	49.14	45.53
31	50.74	---	49.58	---	50.99	---	50.14	49.34	---	49.69	---	45.43
MEAN	49.96	51.13	50.79	50.06	50.95	50.76	49.22	50.13	48.43	49.38	49.65	47.63

CAL YR 1982 MEAN 49.83 HIGH 45.43 LOW 51.50

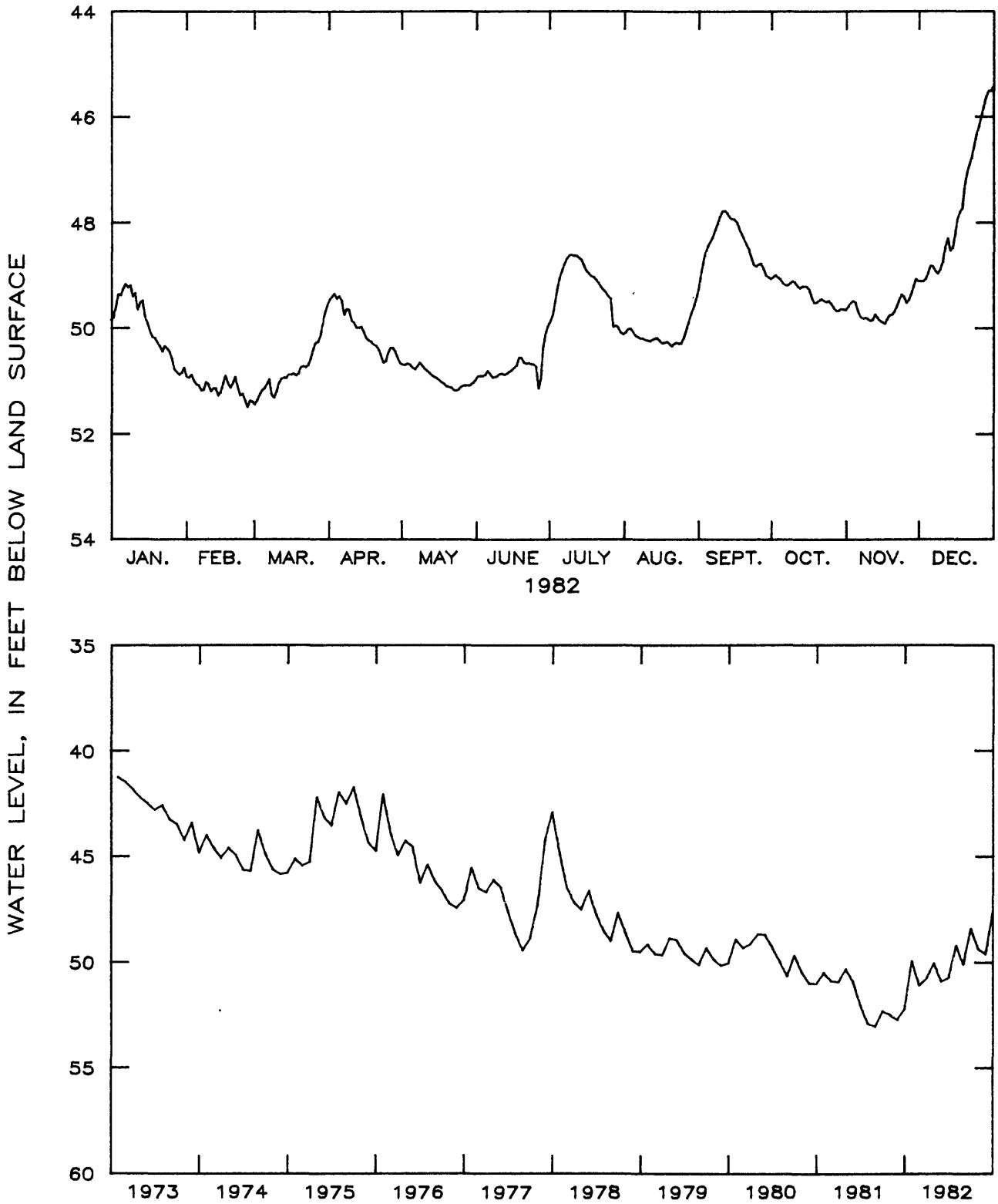

Figure 2.7.4.2—4.——Water level in observation well 33M004, Long County.

34M054 TEST WELL 2 LIBERTY COUNTY

314343081251901 Local number, 34M054.
LOCATION.--Lat 31°43'43", long 81°25'19", Hydrologic Unit 03060204, Riceboro, Ga., near entrance to Interstate Paper Co.
Owner: U.S. Geological Survey, test well 2.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 802 ft, cased to 467 ft, open hole.
DATUM.--Altitude of land-surface datum is 19 ft.
Measuring point: Floor of recorder shelter, 3.4 ft above land-surface datum.
REMARKS.--Well pumped July 11, 1979; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted June 15, 1976.
PERIOD OF RECORD.--February 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.85 ft below land-surface datum, February 5, 1967; lowest, 24.30 ft below land-surface datum, December 20, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	22.48	22.90	22.85	20.50	21.85	20.55	20.CO	19.35	21.80	19.05	21.25	21.25
2	22.70	22.93	22.78	21.05	22.05	21.35	19.95	19.70	21.70	19.05	21.CO	21.35
3	22.70	22.80	22.70	21.65	22.10	21.85	19.80	20.35	21.60	19.05	20.90	21.35
4	22.65	22.85	22.64	21.80	22.25	22.00	19.60	20.70	21.60	19.05	20.88	21.25
5	22.85	22.95	22.70	21.80	22.30	22.05	20.00	20.90	21.68	19.40	21.20	21.18
6	22.75	23.00	22.65	21.90	22.32	22.20	20.85	21.05	21.60	19.85	21.35	21.18
7	22.80	23.10	22.50	22.08	22.25	21.80	21.45	21.20	21.50	20.08	21.20	21.30
8	22.90	23.00	22.43	21.80	22.18	20.95	21.75	21.30	21.25	20.20	21.33	21.50
9	22.85	22.40	22.65	21.75	22.20	20.50	21.80	21.30	21.25	20.30	21.33	21.45
10	22.90	22.65	22.75	22.00	22.20	20.10	21.70	21.35	21.20	20.30	21.33	21.25
11	23.00	22.75	22.62	22.08	22.20	19.95	21.65	21.40	21.15	20.50	21.28	21.00
12	22.95	22.80	22.65	22.12	22.20	19.70	21.70	21.38	21.15	20.57	21.20	21.05
13	22.70	22.80	22.75	22.15	22.0C	19.60	21.75	21.35	21.15	20.62	21.28	21.32
14	22.35	22.95	22.77	22.10	21.97	20.10	21.70	21.42	21.12	20.6C	21.23	21.32
15	22.55	22.97	22.75	22.10	22.25	21.20	21.65	21.40	21.08	20.5C	21.35	21.15
16	22.55	22.82	22.77	22.15	22.30	21.65	21.65	21.50	21.05	20.65	21.50	21.10
17	22.65	22.70	22.80	22.10	22.20	21.80	21.70	21.60	21.05	20.85	21.50	21.05
18	22.68	22.77	22.88	22.05	22.15	21.80	21.60	21.65	21.00	21.00	21.52	21.10
19	22.60	22.80	22.90	21.90	22.20	21.95	21.60	21.60	20.90	21.02	21.48	20.35
20	22.60	22.65	22.83	22.00	22.15	22.15	21.60	21.60	20.45	20.95	21.50	19.67
21	22.70	22.47	22.83	22.22	22.15	22.35	21.60	21.67	19.75	20.97	21.45	19.15
22	22.72	22.60	22.75	22.15	22.25	22.40	21.70	21.62	19.25	20.97	21.30	18.87
23	22.55	22.75	22.65	22.30	22.20	22.25	21.50	21.70	19.10	20.90	21.30	18.73
24	22.65	22.60	22.67	22.25	22.25	22.30	21.60	21.80	18.98	20.88	21.25	18.43
25	22.70	22.75	22.60	22.05	22.25	22.40	21.62	21.75	18.95	21.05	21.45	18.27
26	22.60	22.83	22.60	21.90	22.40	22.45	21.05	21.75	18.98	21.1C	21.45	18.11
27	22.80	22.80	22.70	21.85	21.95	21.90	20.25	21.70	19.02	21.15	21.40	18.07
28	22.90	22.80	22.90	22.00	21.10	20.95	19.9C	21.68	19.02	21.08	21.27	18.00
29	22.95	---	22.15	22.22	20.75	20.35	19.75	21.70	19.00	21.03	21.20	18.00
30	22.95	---	21.10	22.30	20.55	20.05	19.60	21.78	19.02	21.1C	21.22	18.00
31	22.80	---	20.70	---	20.35	---	19.45	21.85	---	21.20	---	18.00
MEAN	22.73	22.79	22.58	21.94	21.98	21.36	21.02	21.33	20.55	20.48	21.30	20.12

CAL YR 1982 MEAN 21.51 HIGH 18.0C LOW 23.10

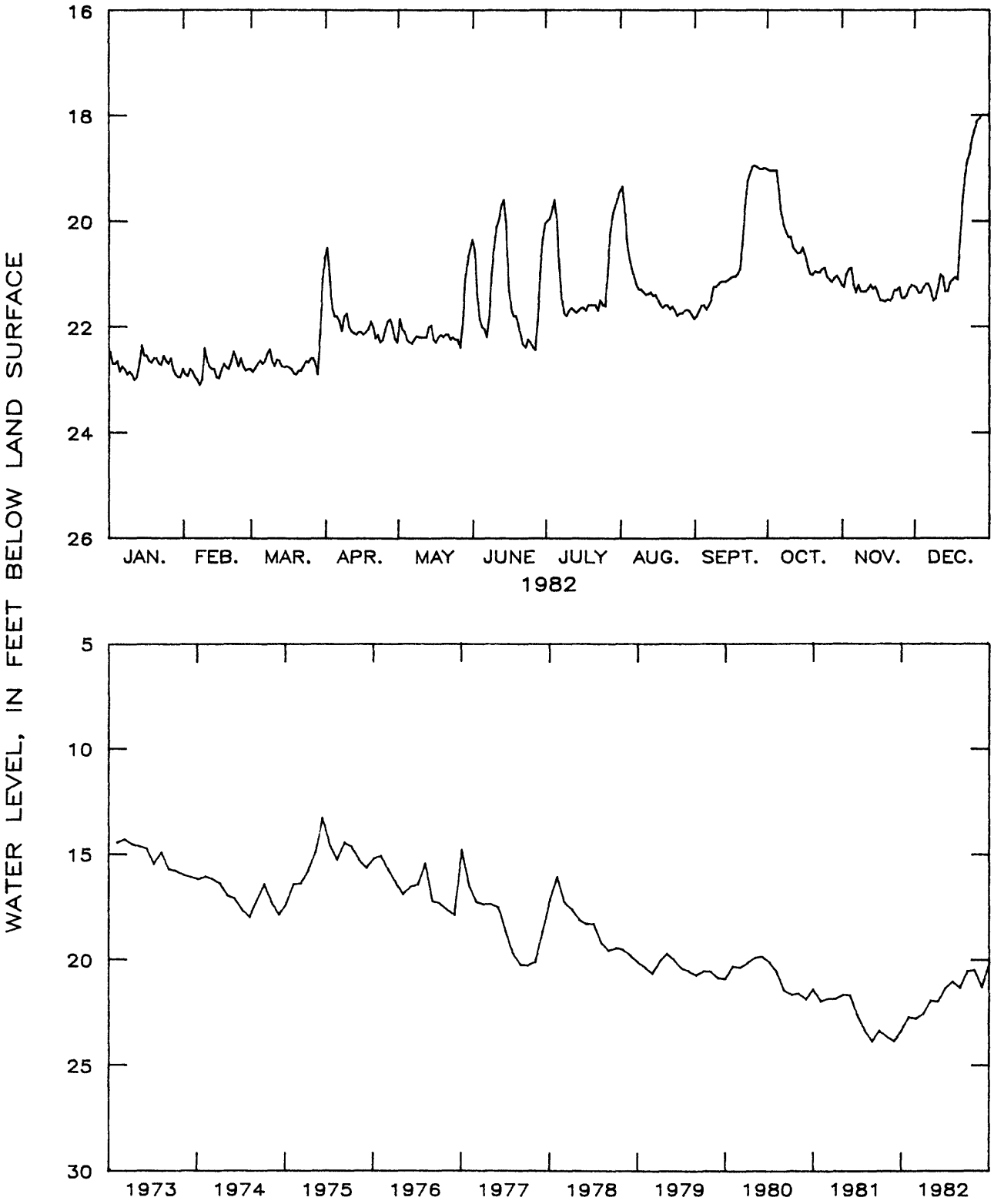

Figure 2.7.4.2–5.––Water level in observation well 34M054, Liberty County.

34N089 TEST WELL 1 LIBERTY COUNTY

315214081235301 Local number, 34N089.
LOCATION.--Lat 31°52'14", long 81°23'53", Hydrologic Unit 03060204, north of Midway, Ga., near intersection of Georgia Highway 196 and U.S. Highway 17.
Owner: U.S. Geological Survey, test well 1.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 789 ft, cased to 410 ft, open hole.
DATUM.--Altitude of land-surface datum is 17 ft.
Measuring point: Top of 4 in. casing, 1.33 ft above land-surface datum.
REMARKS.--Well pumped July 11, 1979; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted June 15, 1976. Water levels for period of missing recorder record, December 30-31, were estimated.
PERIOD OF RECORD.--February 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.34 ft below land-surface datum, March 6, 1967; lowest, 22.28 ft below land-surface datum, August 10-11, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	20.85	20.27	20.20	20.00	19.42	19.65	19.87	19.33	19.55	18.75	18.80	18.95
2	20.95	20.25	20.10	19.90	19.40	19.65	19.90	19.25	19.50	18.65	18.75	19.00
3	20.82	20.15	20.03	19.75	19.38	19.68	19.85	19.18	19.50	18.60	18.65	18.95
4	20.75	20.30	20.00	19.80	19.38	19.68	19.80	19.20	19.50	18.55	18.70	18.90
5	20.85	20.30	20.00	19.65	19.45	19.60	19.80	19.25	19.60	18.60	18.85	18.85
6	20.72	20.25	19.93	19.60	19.45	19.70	19.80	19.28	19.60	18.60	18.95	18.90
7	20.65	20.35	19.90	19.80	19.40	19.75	19.75	19.32	19.60	18.55	18.95	19.00
8	20.65	20.30	20.72	19.60	19.32	19.80	19.70	19.33	19.55	18.50	18.95	19.05
9	20.50	20.08	20.30	19.50	19.40	19.80	19.65	19.40	19.55	18.50	18.95	18.98
10	20.60	20.15	20.20	19.65	19.45	19.78	19.63	19.43	19.45	18.50	19.00	18.90
11	20.62	20.30	20.05	19.60	19.48	19.80	19.60	19.43	19.40	18.55	18.95	18.70
12	20.60	20.20	20.02	19.65	19.52	19.80	19.60	19.38	19.40	18.60	18.85	18.75
13	20.40	20.20	20.02	19.60	19.57	19.78	19.60	19.32	19.40	18.55	18.90	18.95
14	20.25	20.32	20.05	19.52	19.58	19.78	19.57	19.32	19.35	18.55	18.93	19.00
15	20.45	20.25	20.00	19.55	19.60	19.80	19.57	19.35	19.25	18.55	18.98	18.85
16	20.45	20.05	20.05	19.60	19.65	19.85	19.60	19.40	19.20	18.65	19.00	18.70
17	20.53	19.85	20.02	19.57	19.70	19.85	19.55	19.37	19.25	18.80	18.90	18.70
18	20.50	20.05	20.10	19.55	19.70	19.68	19.55	19.30	19.25	18.90	18.92	18.72
19	20.45	20.10	20.02	19.55	19.75	19.75	19.50	19.35	19.20	18.85	18.95	18.61
20	20.42	20.03	19.95	19.45	19.75	19.80	19.45	19.43	19.20	18.80	18.98	18.58
21	20.35	19.85	19.97	19.50	19.75	19.85	19.45	19.35	19.20	18.80	18.95	18.61
22	20.45	20.05	20.05	19.52	19.80	19.90	19.50	19.38	19.25	18.80	18.90	18.64
23	20.28	20.15	20.05	19.65	19.85	19.95	19.48	19.45	19.25	18.85	18.90	18.53
24	20.22	20.10	20.05	19.60	19.85	19.90	19.50	19.45	19.10	18.80	18.95	18.43
25	20.35	20.20	20.00	19.42	19.80	19.95	19.53	19.40	18.95	18.80	19.15	18.41
26	20.30	20.30	20.00	19.25	19.75	19.98	19.50	19.45	18.85	18.90	19.10	18.32
27	20.45	20.15	20.15	19.23	19.78	20.00	19.48	19.45	18.85	18.90	19.05	18.21
28	20.42	20.17	20.30	19.30	19.80	19.95	19.45	19.50	18.90	18.90	18.98	18.02
29	20.42	---	20.25	19.37	19.80	19.85	19.45	19.60	18.85	18.85	18.85	17.89
30	20.35	---	20.20	19.40	19.78	19.82	19.45	19.65	18.80	18.90	18.95	17.83
31	20.15	---	20.10	---	19.75	---	19.40	19.65	---	18.90	---	17.77
MEAN	20.51	20.17	20.09	19.57	19.61	19.80	19.60	19.39	19.28	18.71	18.92	18.64

CAL YR 1982 MEAN 19.52 HIGH 17.77 LOW 20.95

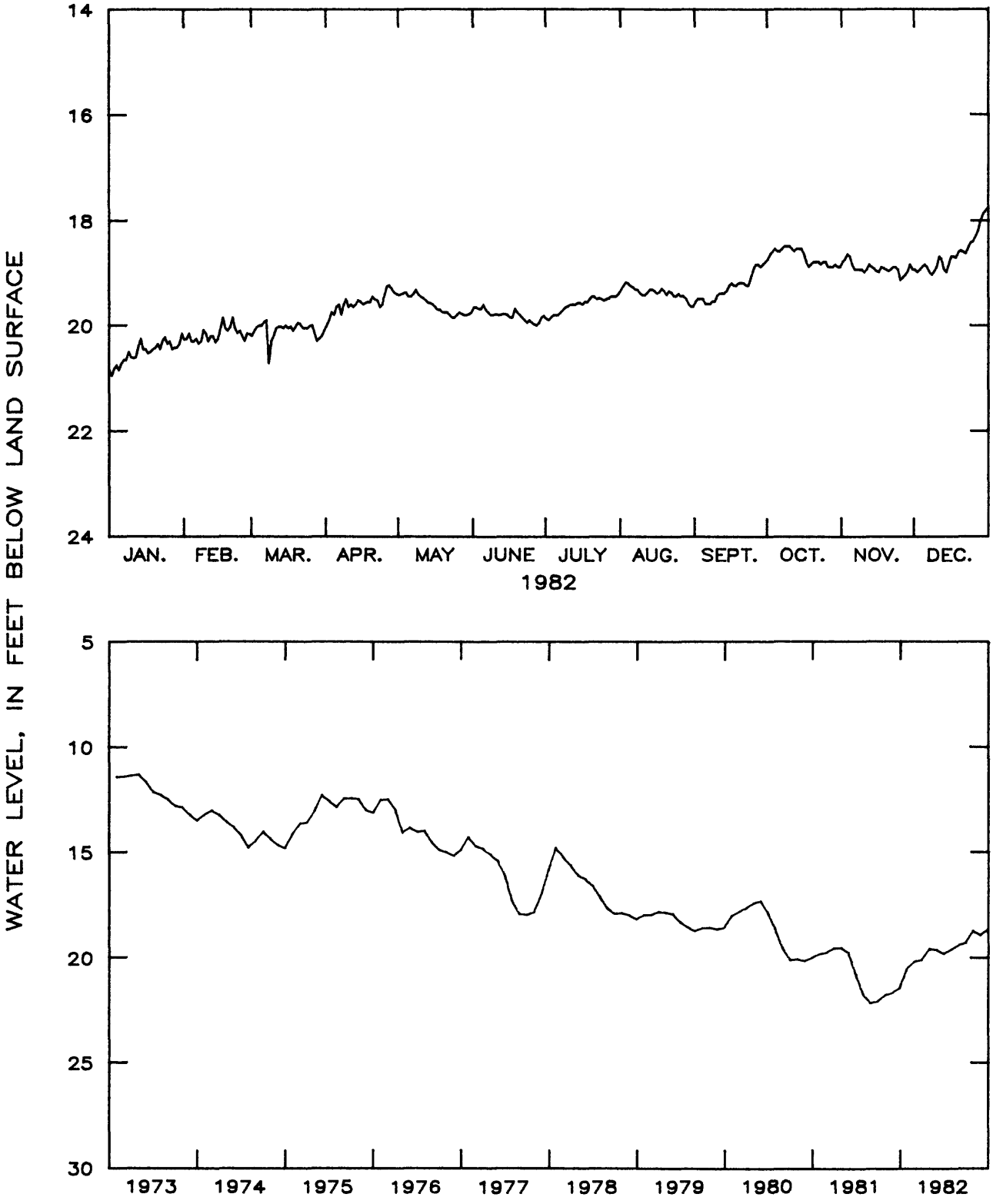

Figure 2.7.4.2–6.––Water level in observation well 34N089, Liberty County.

35M013 HARRIS NECK MCINTOSH COUNTY

313826081152601 Local number, 35M013.
LOCATION.--Lat 31°38'23", long 81°15'42", Hydrologic Unit 03060204, 8.5 mi east of U.S. Highway 17 at Harris Neck Wildlife Refuge.
Owner: U.S. Department of the Interior, Fish and Wildlife Service.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused supply well, diameter 10 in., depth 553 ft, cased to 376 ft, open hole.
DATUM.--Altitude of land-surface datum is 16.3 ft.
Measuring point: Floor of recorder shelter, 3.2 ft above land-surface datum.
REMARKS.--Well pumped August 3, 1978; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted June 16, 1976.
PERIOD OF RECORD.--September 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.35 ft below land-surface datum, October 4, 1966; lowest, 20.45 ft below land-surface datum, December 19, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	19.85	19.60	19.30	19.15	18.70	18.65	18.85	18.55	18.43	17.65	17.60	17.75
2	19.95	19.45	19.25	19.07	18.75	18.67	18.85	18.29	18.40	17.58	17.50	17.80
3	19.75	19.38	19.20	19.03	18.77	18.65	18.80	18.20	18.40	17.52	17.45	17.78
4	19.83	19.48	19.12	19.10	18.75	18.58	18.75	18.25	18.43	17.52	17.35	17.70
5	20.03	19.45	19.10	18.83	18.75	18.55	18.68	18.35	18.35	17.60	17.75	17.60
6	19.85	19.35	19.05	18.85	18.80	18.58	18.65	18.40	18.40	17.65	17.70	17.75
7	19.75	19.47	18.93	19.00	18.75	18.63	18.72	18.40	18.40	17.55	17.65	17.80
8	19.75	19.38	19.35	18.80	18.72	18.70	18.75	18.40	18.25	17.52	17.65	17.75
9	19.50	19.25	19.42	18.85	18.68	18.65	18.75	18.45	18.25	17.50	17.70	17.75
10	19.80	19.35	19.32	18.88	18.70	18.62	18.75	18.55	18.20	17.48	17.80	17.70
11	19.95	19.40	19.25	18.87	18.80	18.60	18.75	18.50	18.20	17.45	17.75	17.55
12	19.83	19.35	19.20	18.92	18.80	18.55	18.78	18.45	18.28	17.47	17.70	17.50
13	19.45	19.35	19.20	18.95	18.83	18.65	18.75	18.33	18.25	17.48	17.85	17.63
14	19.45	19.48	19.30	18.93	18.90	18.70	18.70	18.25	18.18	17.54	17.65	17.70
15	19.83	19.50	19.25	18.90	18.92	18.65	18.65	18.22	18.05	17.54	17.73	17.65
16	19.70	19.35	19.23	18.90	18.85	18.65	18.60	18.28	18.03	17.55	17.65	17.65
17	19.82	19.18	19.28	18.98	18.90	18.65	18.50	18.25	18.05	17.60	17.55	17.71
18	19.80	19.23	19.30	18.95	18.90	18.55	18.50	18.23	18.03	17.75	17.58	17.76
19	19.75	19.27	19.25	18.85	18.90	18.52	18.45	18.35	18.10	17.75	17.60	17.63
20	19.75	19.25	19.22	18.80	18.78	18.50	18.48	18.50	18.13	17.72	17.60	17.82
21	19.65	19.05	19.15	18.85	18.70	18.55	18.45	18.55	18.10	17.70	17.65	17.78
22	19.60	19.08	19.15	18.80	18.70	18.58	18.48	18.50	18.18	17.65	17.60	17.74
23	19.45	19.32	18.97	18.75	18.70	18.60	18.55	18.48	18.12	17.50	17.60	17.67
24	19.55	19.30	18.83	18.75	18.65	18.62	18.55	18.55	18.03	17.48	17.85	17.70
25	19.50	19.23	18.83	18.55	18.63	18.60	18.60	18.52	17.90	17.65	17.90	17.80
26	19.63	19.10	18.98	18.60	18.63	18.70	18.60	18.48	17.80	17.75	17.90	17.73
27	19.60	19.15	19.07	18.55	18.60	18.85	18.55	18.45	17.95	17.75	17.90	17.60
28	19.63	19.25	19.03	18.60	18.70	18.90	18.55	18.50	17.93	17.65	17.70	17.47
29	19.67	---	19.00	18.55	18.78	18.90	18.65	18.43	17.80	17.60	17.65	17.35
30	19.55	---	19.15	18.57	18.80	18.85	18.69	18.50	17.70	17.60	17.75	17.20
31	19.40	---	19.15	---	18.75	---	18.62	18.50	---	17.65	---	17.15
MEAN	19.70	19.32	19.16	18.84	18.76	18.65	18.65	18.41	18.14	17.59	17.68	17.65

CAL YR 1982 MEAN 18.54 HIGH 17.15 LOW 20.03

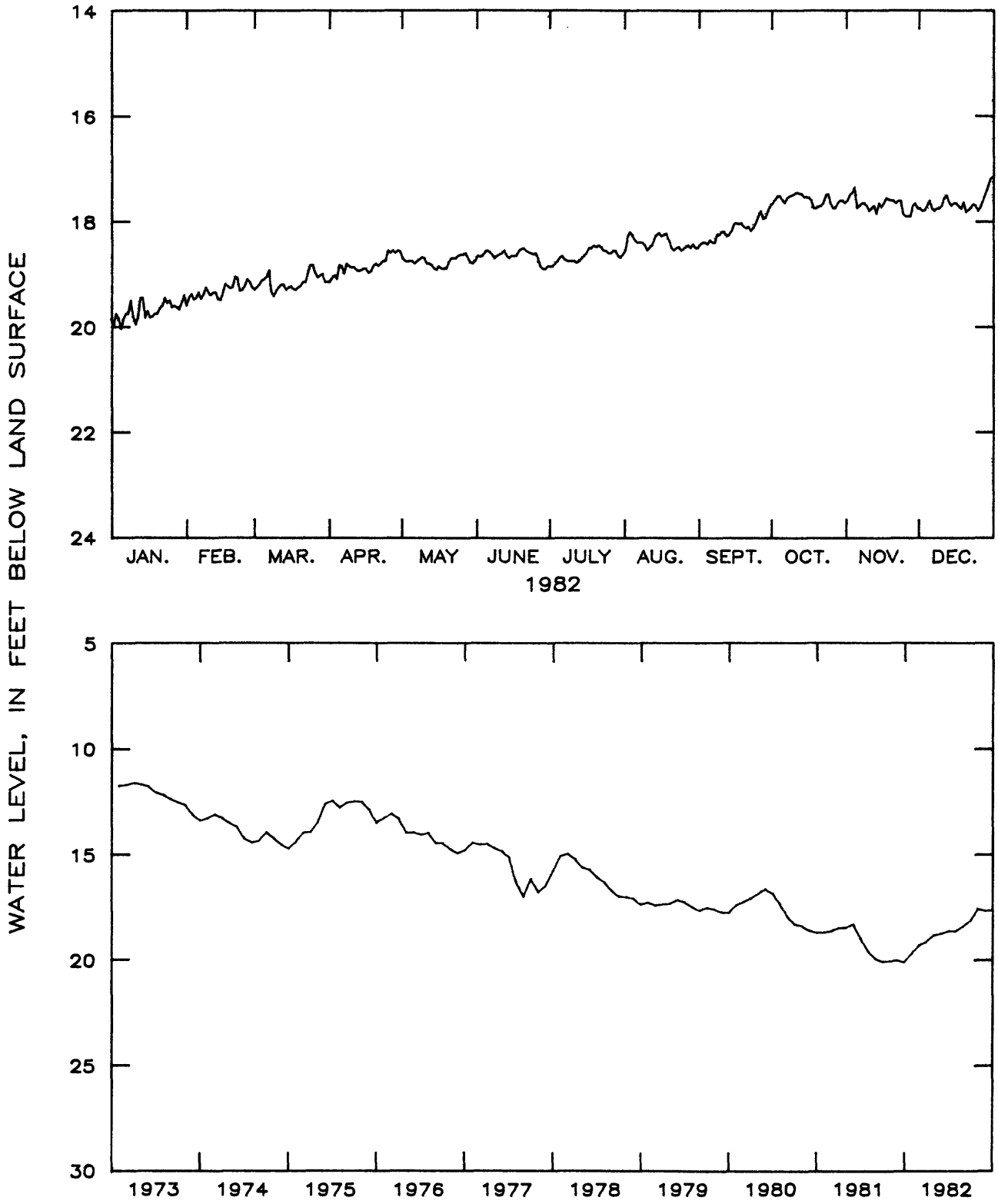

Figure 2.7.4.2–7.––Water level in observation well 35M013, McIntosh County.

2.7.4.3 Brunswick area

Water levels in the principal artesian aquifer in the Brunswick area are affected by ground-water pumpage of about 100 Mgal/d for municipal and industrial use. Partial industrial shutdowns during 1982 and the installation of an evaporative cooling tower by a major water user in July reduced industrial pumpage by about 10 Mgal/d and allowed ground-water levels to recover significantly from the record lows of 1981.

Mean annual water levels in water-bearing zones of the principal artesian aquifer in the Brunswick area ranged from 3.4 to 4.3 feet higher in 1982 than in 1981. Levels in the brackish-water zone were from 2.0 to 3.4 feet higher in 1982 than in 1981.

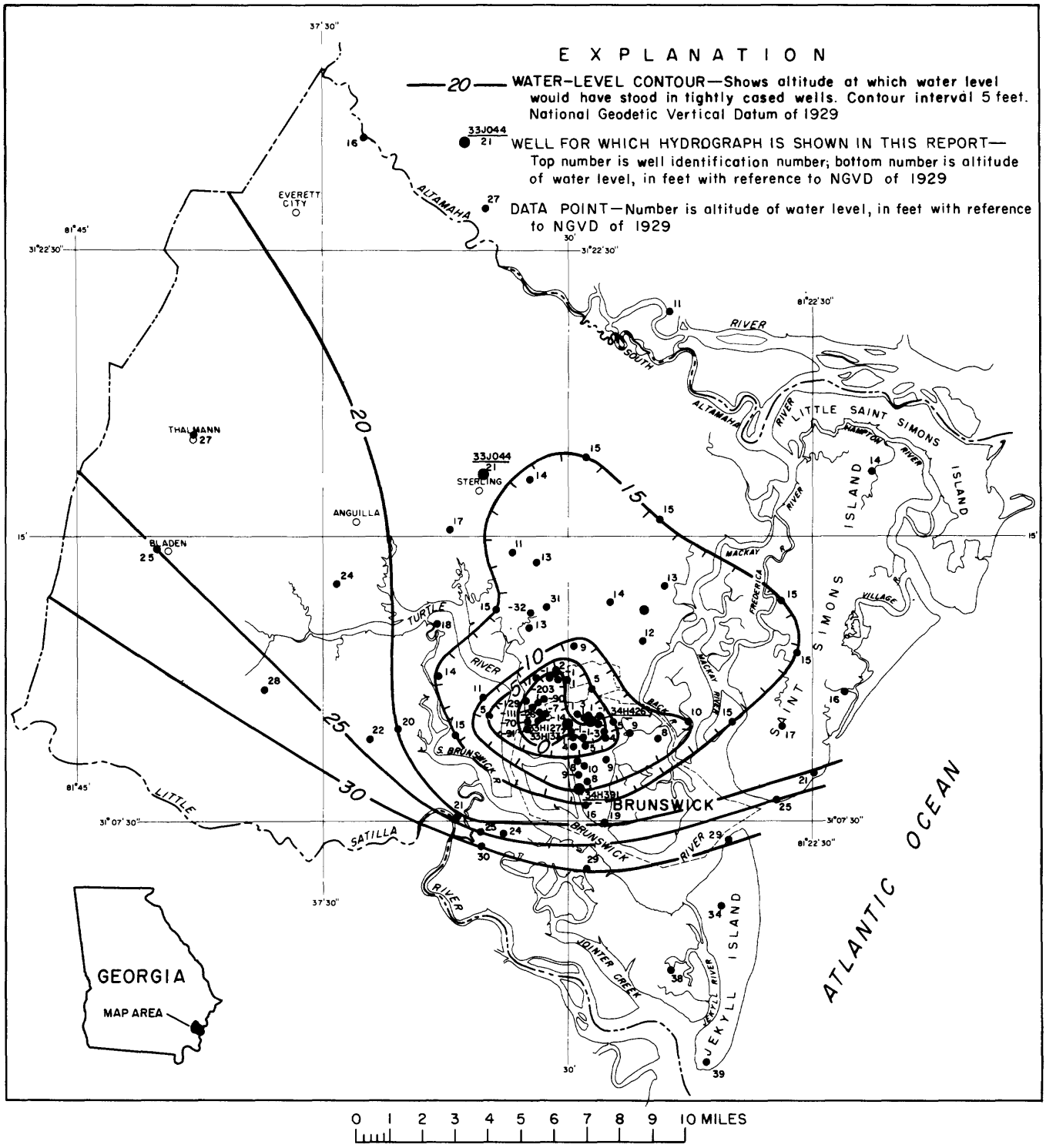

Figure 2.7.4.3—1.——Observation well locations and the water level in the Brunswick area, November 1982.

33H127 TEST WELL 3 GLYNN COUNTY

311007081301701 Local number, 33H127.
LOCATION.--Lat 31°10'07", long 81°30'17", Hydrologic Unit 03070203, in south corner of Greenwood Cemetary in Brunswick.
Owner: U.S. Geological Survey, test well 3.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 4 in., depth 1,002 ft, cased to 823 ft, open hole.
DATUM.--Altitude of land-surface datum is 6 ft.
Measuring point: Top of 4-in. nipple on recorder, 4.50 ft above land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, January 3-5, June 24-30, and November 27 to December 2, were estimated. Well was flowing August 1-3, September 20 to October 13, and December 20-31.
PERIOD OF RECORD.--August 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.00 ft above land-surface datum, October 9, 1962; lowest, 11.19 ft below land-surface datum, July 14, 1977.

Water level, in feet above or below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-5.84	-8.54	-7.88	-8.50	-8.34	-8.67	-4.66	---	-2.06	---	-1.72	-1.13
2	-6.75	-8.50	-7.60	-8.72	-8.57	-8.92	-4.61	---	-1.80	---	-1.30	-0.65
3	-7.08	-7.90	-7.81	-8.57	-8.32	-8.78	-4.78	---	-2.10	---	-1.15	-0.86
4	-7.02	-8.02	-7.76	-8.29	-8.69	-8.68	-4.51	.16	-1.80	---	-1.38	-0.96
5	-7.04	-8.14	-8.16	-8.51	-8.58	-8.61	-4.42	-0.72	-1.74	---	-1.60	-0.80
6	-7.35	-7.81	-8.31	-8.44	-8.46	-8.64	-4.90	-1.32	-1.98	---	-1.35	-0.82
7	-7.71	-7.74	-8.24	-8.52	-8.26	-8.58	-5.94	-1.48	-1.63	---	-1.49	-1.24
8	-7.66	-8.22	-8.44	-8.00	-8.36	-8.72	-6.82	-1.57	-2.12	---	-1.50	-1.38
9	-7.21	-8.14	-8.27	-7.99	-8.23	-9.11	-6.84	-1.84	-2.00	---	-1.30	-1.77
10	-7.56	-8.20	-8.11	-8.10	-7.98	-9.12	-7.16	-2.26	-1.71	---	-1.88	-1.64
11	-7.95	-8.32	-8.60	-7.99	-8.16	-9.12	-4.86	-2.55	-1.64	---	-1.35	-1.36
12	-8.12	-8.44	-8.61	-8.40	-8.39	-9.26	-2.87	-2.31	-1.92	---	-1.68	-1.16
13	-8.30	-8.00	-8.64	-8.38	-8.44	-9.14	-2.30	-3.12	-1.58	---	-1.22	-1.03
14	-8.36	-7.91	-8.52	-8.26	-8.48	-7.74	-2.60	-2.59	-0.24	.42	-1.11	-0.74
15	-8.56	-8.18	-8.06	-8.43	-9.02	-9.00	-3.60	-2.26	-0.06	-0.04	-1.02	-1.10
16	-8.08	-7.98	-8.05	-8.51	-8.91	-8.98	-3.90	-2.18	.14	-0.41	-0.32	-0.62
17	-8.39	-7.63	-8.16	-8.38	-9.02	-8.96	-2.97	-2.33	.19	-0.58	-0.40	.05
18	-8.46	-8.12	-8.78	-8.65	-9.15	-8.20	-1.86	-2.06	.36	-0.50	-0.81	.20
19	-8.07	-7.66	-8.40	-8.08	-8.78	-8.24	-1.64	-2.20	.30	-0.31	-0.76	.59
20	-8.14	-7.34	-8.54	-8.60	-8.68	-8.06	-1.84	-2.08	---	.18	-0.90	---
21	-8.00	-7.54	-8.36	-8.20	-8.52	-7.18	-2.06	-2.67	---	-0.62	-0.78	---
22	-8.22	-7.29	-8.46	-8.15	-8.67	-6.46	-1.88	-2.62	---	-1.20	-0.78	---
23	-8.27	-7.04	-8.64	-8.48	-8.70	-6.12	-2.86	-3.34	---	-0.64	-0.80	---
24	-8.24	-7.28	-8.54	-8.65	-8.72	-5.59	-2.68	-2.66	---	-1.22	-0.72	---
25	-7.98	-7.94	-8.22	-8.41	-8.72	-5.08	-2.31	-2.30	---	-1.17	-0.91	---
26	-8.08	-7.79	-8.40	-8.25	-8.83	-4.92	-1.56	-1.86	---	-0.46	-0.13	---
27	-7.98	-7.66	-8.62	-7.82	-8.93	-4.99	-1.18	-1.75	---	-1.38	-0.76	---
28	-8.14	-7.88	-8.64	-7.94	-9.30	-4.73	-0.88	-1.46	---	-1.55	-0.65	---
29	-7.78	---	-8.57	-8.12	-9.26	-4.73	-0.54	-1.45	---	-1.56	-0.60	---
30	-8.19	---	-8.64	-8.14	-9.18	-4.61	.30	-1.21	---	-1.60	-1.27	---
31	-8.16	---	-8.75	---	-8.71	---	.50	-1.38	---	-1.64	---	---
MEAN	-7.83	-7.90	-8.35	-8.32	-8.66	-7.63	-3.17	-1.98	-1.23	-0.79	-1.05	-0.86

CAL YR 1982 MEAN -5.24 MAX .59 MIN -9.30

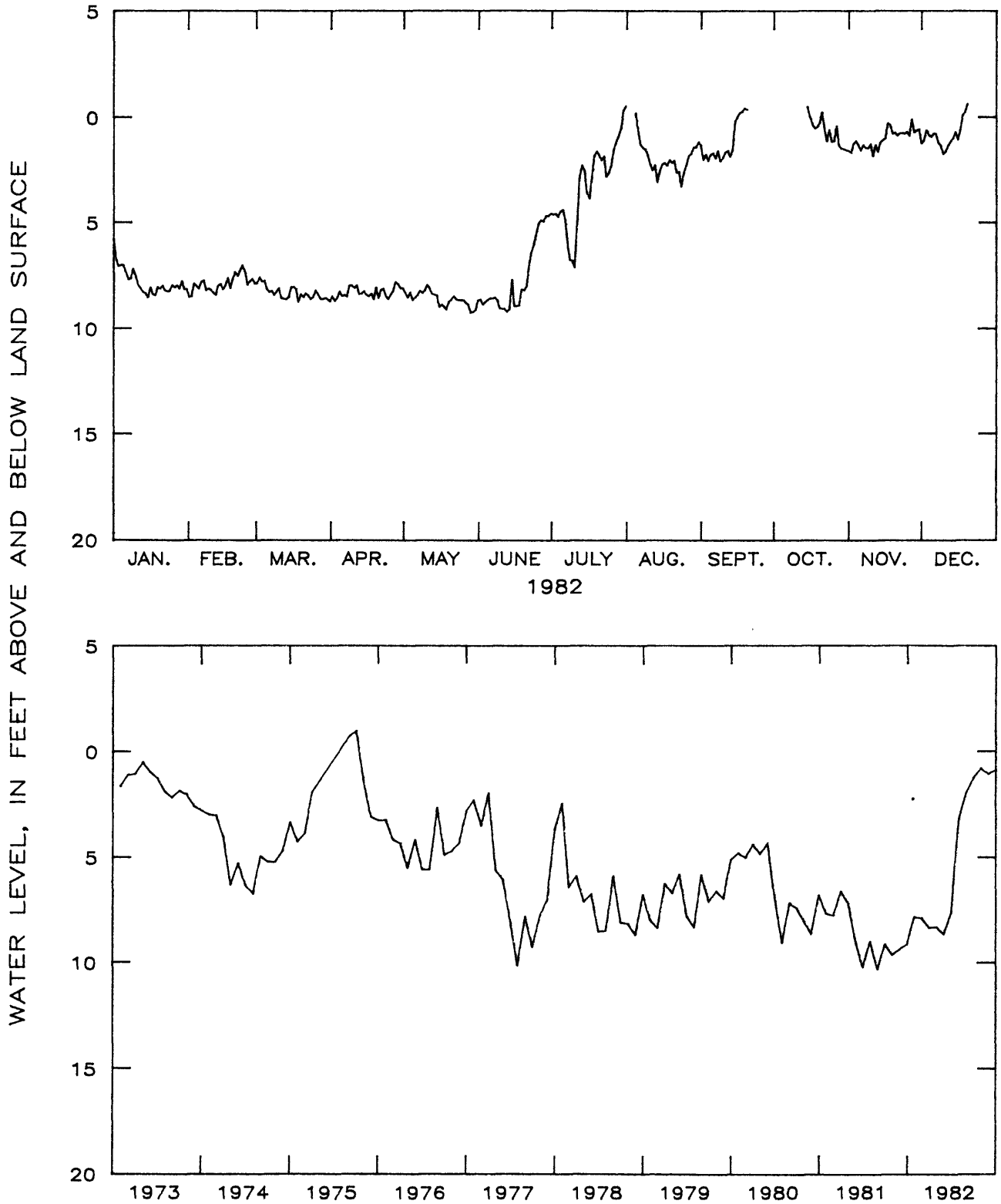

Figure 2.7.4.3–2.––Water level in observation well 33H127, lower water–bearing zone, Glynn County.

33H133 TEST WELL 6 GLYNN COUNTY

311007081301702 Local number, 33H133.
LOCATION.--Lat 31°10'07", long 81°30'17", Hydrologic Unit 03070203, near the intersection of Newcastle and Oak Streets to the south of the cemetery in Brunswick.
Owner: U.S. Geological Survey, test well 6.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 790 ft, cased to 520 ft, open hole.
DATUM.--Altitude of land-surface datum is 7 ft.
Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.
REMARKS.--Well pumped monthly; water-quality samples collected at conclusion of pumping. Borehole geophysical survey conducted September 26, 1977. Water levels for periods of missing recorder record, January 1-6, February 26 to March 4, July 29 to August 1, September 16-21 and 26-28, October 5-11, and December 3-25 and 28-31, were estimated. Well was flowing September 29 to October 4 and December 26-27.
PERIOD OF RECORD.--January 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.07 ft above land-surface datum, December 26, 1965; lowest, 21.87 ft below land-surface datum, July 22, 1977.

Water level, in feet above or below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-16.50	-19.32	-18.21	-19.45	-19.50	-19.54	-13.17	-5.43	-10.42	---	-9.80	-9.15
2	-17.25	-19.02	-18.06	-19.86	-19.46	-19.92	-13.12	-5.31	-9.97	---	-9.32	-8.73
3	-17.75	-18.32	-18.50	-19.34	-19.20	-19.75	-13.08	-5.78	-10.64	---	-9.10	-9.00
4	-18.00	-18.84	-18.73	-18.83	-19.60	-19.64	-13.00	-7.52	-10.76	---	-9.16	-8.91
5	-18.15	-19.23	-19.24	-19.28	-19.70	-19.34	-12.88	-9.52	-10.55	.19	-9.55	-8.66
6	-18.53	-19.04	-19.28	-18.88	-19.74	-19.40	-14.72	-10.14	-10.93	.31	-9.14	-8.50
7	-18.36	-18.74	-19.03	-18.61	-19.52	-19.38	-16.40	-10.29	-10.80	-4.37	-9.54	-8.92
8	-18.56	-18.46	-19.41	-18.02	-19.38	-19.54	-17.16	-10.06	-11.38	-6.13	-9.24	-9.40
9	-17.76	-18.55	-19.21	-18.49	-18.90	-20.00	-17.39	-9.95	-11.16	-7.24	-8.97	-10.17
10	-17.68	-18.48	-19.32	-18.02	-18.71	-20.02	-17.63	-10.24	-10.82	-7.78	-9.60	-10.24
11	-18.32	-19.17	-19.52	-17.98	-19.00	-20.00	-15.49	-10.72	-10.94	-7.89	-8.96	-9.67
12	-18.65	-19.24	-19.79	-19.04	-19.26	-20.18	-13.00	-10.66	-10.98	-7.78	-9.59	-9.70
13	-18.96	-18.73	-19.56	-19.02	-19.32	-20.14	-12.15	-11.46	-10.62	-7.80	-9.16	-9.76
14	-18.86	-18.15	-19.06	-18.60	-19.42	-18.66	-11.70	-11.56	-9.46	-8.35	-8.56	-9.32
15	-18.78	-18.78	-18.81	-18.94	-19.88	-19.64	-10.79	-11.18	-8.66	-8.66	-8.08	-9.97
16	-18.58	-18.82	-19.04	-19.34	-19.80	-19.53	-9.95	-11.37	-8.55	-8.97	-7.75	-8.98
17	-18.48	-18.82	-18.71	-18.94	-19.85	-19.57	-10.10	-11.80	-8.33	-9.06	-8.19	-8.71
18	-18.74	-19.28	-19.61	-19.36	-19.98	-18.94	-12.77	-12.24	-8.75	-8.84	-8.80	-8.59
19	-18.28	-18.63	-19.07	-19.16	-19.76	-18.98	-12.58	-11.96	-8.65	-8.42	-8.42	-7.92
20	-18.50	-18.44	-18.94	-19.62	-19.46	-18.66	-12.27	-12.11	-8.80	-7.76	-8.33	-7.72
21	-18.42	-18.46	-18.90	-18.14	-19.46	-16.47	-11.97	-11.70	-8.81	-8.61	-8.18	-7.80
22	-18.46	-18.19	-18.78	-18.66	-19.36	-14.66	-12.13	-11.94	-8.90	-9.08	-8.46	-8.53
23	-18.96	-17.45	-19.46	-19.38	-19.48	-14.59	-11.13	-11.84	-9.14	-9.03	-8.52	-8.38
24	-18.28	-16.81	-19.07	-19.44	-19.39	-14.06	-10.96	-11.20	-9.20	-9.36	-8.22	-3.30
25	-17.92	-17.85	-18.78	-19.24	-19.45	-13.56	-11.17	-9.96	-8.71	-9.00	-8.54	.66
26	-17.82	-18.31	-18.78	-19.27	-19.57	-13.40	-10.16	-9.54	-8.03	-8.03	-7.84	---
27	-18.14	-17.89	-18.94	-18.33	-19.88	-13.48	-9.46	-10.05	-2.74	-9.04	-8.53	---
28	-18.35	-17.88	-19.02	-18.76	-20.20	-13.22	-8.68	-9.64	.64	-9.78	-7.18	-1.20
29	-17.61	---	-19.07	-18.89	-20.00	-13.23	-8.53	-9.86	---	-9.54	-8.49	-3.40
30	-18.48	---	-19.31	-19.41	-19.85	-13.11	-7.02	-9.43	---	-9.50	-9.23	-4.41
31	-18.54	---	-19.42	---	-19.47	---	-6.15	-9.60	---	-9.56	---	-5.71
MEAN	-18.25	-18.53	-19.05	-18.94	-19.53	-17.69	-12.15	-10.13	-9.15	-7.74	-8.75	-7.73

CAL YR 1982 MEAN -14.07 MAX .66 MIN -20.20

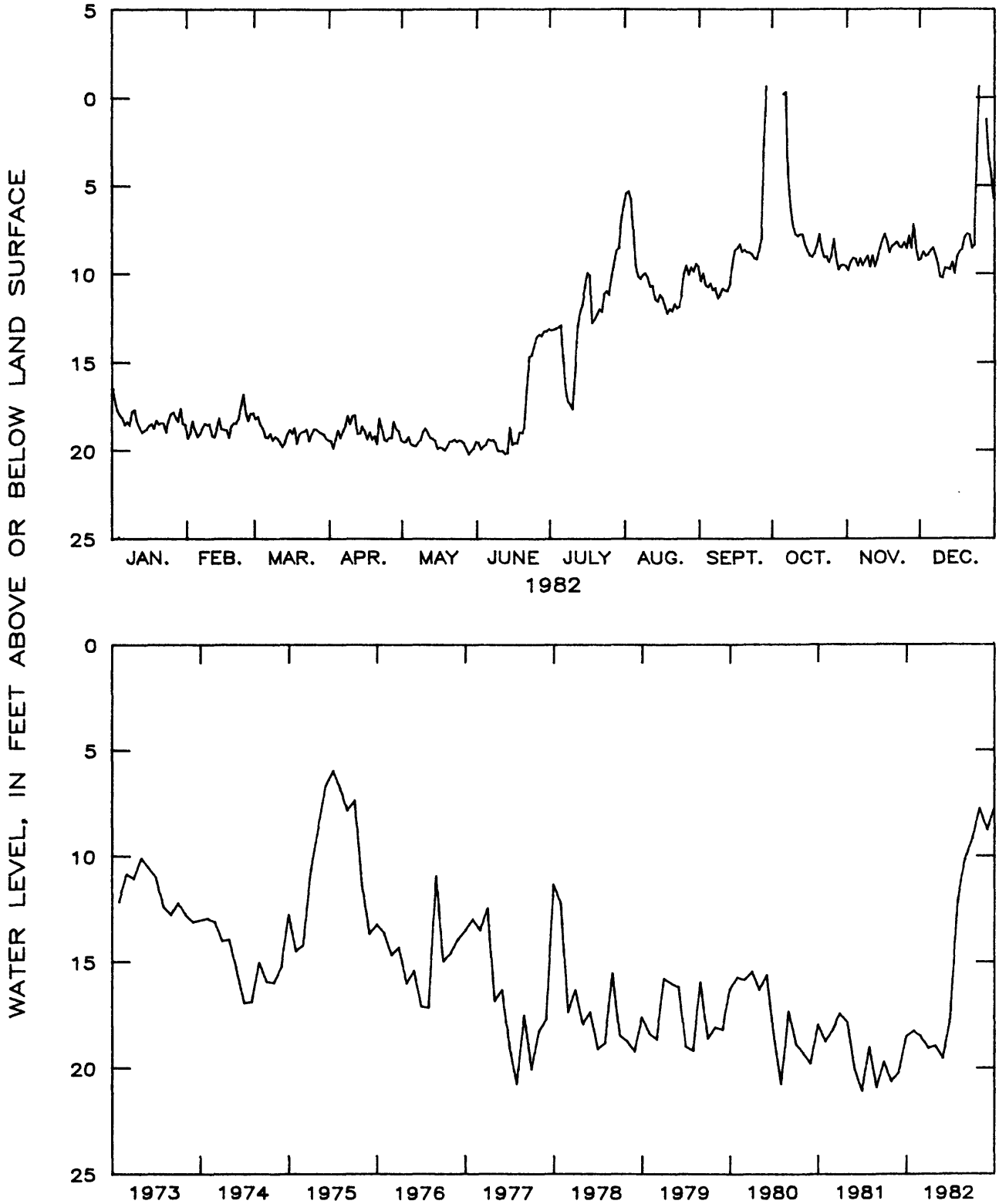

Figure 2.7.4.3–3.––Water level in observation well 33H133, upper water–bearing zone, Glynn County.

34H426 TEST WELL 25 GLYNN COUNTY

310938081285303 Local number, 34H426.
LOCATION.--Lat 31°09'38", long 81°28'53", Hydrologic Unit 03070203, near intersection of "J" Street and Wilson Avenue behind Miller Ball Park.
Owner: U.S. Geological Survey, test well 25.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 8 in., depth 1,211 ft, cased to 1,027 ft, open hole.
DATUM.--Altitude of land-surface datum is 8.3 ft.
Measuring point: Floor of recorder shelter, 8.0 ft above land-surface datum.
REMARKS.--Well was flowing July 31 to August 5 and September 15 to December 31.
PERIOD OF RECORD.--September 1962 to January 1966; October 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.00 ft above land-surface datum, December 24-31, 1977; lowest, 4.10 ft below land-surface datum, June 19, 1981.

Water level, in feet above or below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.04	-1.56	-1.10	-1.63	-1.34	-1.88	2.34	---	4.52	---	---	---
2	.32	-1.39	-1.04	-1.78	-1.38	-2.02	2.36	---	4.53	---	---	---
3	-0.01	-1.34	-1.08	-1.75	-1.38	-1.96	2.45	---	4.30	---	---	---
4	-0.26	-1.46	-1.10	-1.58	-1.52	-1.94	2.60	---	4.31	---	---	---
5	-0.54	-1.62	-1.34	-1.50	-1.59	-1.88	2.59	---	4.38	---	---	---
6	-0.58	-1.55	-1.38	-1.57	-1.68	-1.84	1.76	5.06	4.30	---	---	---
7	-0.80	-1.55	-1.32	-1.66	-1.58	-1.90	.80	4.69	4.44	---	---	---
8	-0.76	-1.50	-1.66	-1.28	-1.48	-1.98	.20	4.54	4.26	---	---	---
9	-0.56	-1.39	-1.66	-1.45	-1.38	-2.16	-0.04	4.41	4.27	---	---	---
10	-0.73	-1.38	-1.54	-1.21	-1.29	-2.25	-0.16	4.27	4.51	---	---	---
11	-1.00	-1.49	-1.40	-1.08	-1.40	-2.36	.58	4.01	4.63	---	---	---
12	-1.24	-1.50	-1.84	-1.30	-1.54	-2.42	1.63	4.08	4.54	---	---	---
13	-1.20	-1.43	-1.82	-1.43	-1.64	-2.32	2.20	3.69	4.74	---	---	---
14	-1.29	-1.25	-1.67	-1.35	-1.76	-2.06	2.57	3.76	5.20	---	---	---
15	-1.60	-1.25	-1.48	-1.38	-1.89	-1.93	2.95	4.04	---	---	---	---
16	-1.33	-1.23	-1.41	-1.60	-1.92	-1.88	3.30	3.86	---	---	---	---
17	-1.42	-1.08	-1.34	-1.53	-2.06	-1.94	3.26	3.68	---	---	---	---
18	-1.46	-1.30	-1.60	-1.54	-2.19	-1.53	2.59	3.56	---	---	---	---
19	-1.36	-1.31	-1.55	-1.39	-2.11	-1.48	2.37	3.55	---	---	---	---
20	-1.40	-1.07	-1.46	-1.54	-2.02	-1.28	2.44	3.43	---	---	---	---
21	-1.26	-0.84	-1.41	-0.94	-1.96	-0.40	2.62	3.58	---	---	---	---
22	-1.38	-0.90	-1.47	-1.16	-1.90	.69	2.51	3.68	---	---	---	---
23	-1.36	-0.87	-1.58	-1.49	-1.86	1.14	2.87	3.48	---	---	---	---
24	-1.34	-0.80	-1.50	-1.48	-1.84	1.52	3.05	3.64	---	---	---	---
25	-1.22	-1.10	-1.36	-1.30	-1.86	1.85	3.10	3.92	---	---	---	---
26	-1.15	-1.20	-1.44	-1.31	-1.94	1.97	3.34	4.16	---	---	---	---
27	-1.24	-1.04	-1.56	-1.07	-1.92	2.08	3.90	4.24	---	---	---	---
28	-1.26	-1.06	-1.50	-1.12	-2.22	2.28	4.53	4.48	---	---	---	---
29	-1.17	---	-1.50	-1.18	-2.24	2.38	4.68	4.52	---	---	---	---
30	-1.28	---	-1.58	-1.22	-2.19	2.48	5.28	4.64	---	---	---	---
31	-1.20	---	-1.64	---	-1.98	---	---	4.68	---	---	---	---
MEAN	-0.97	-1.27	-1.46	-1.39	-1.78	-0.77	2.49	4.06	4.50	---	---	---

CAL YR 1982 MEAN .05 MAX 5.28 MIN -2.42

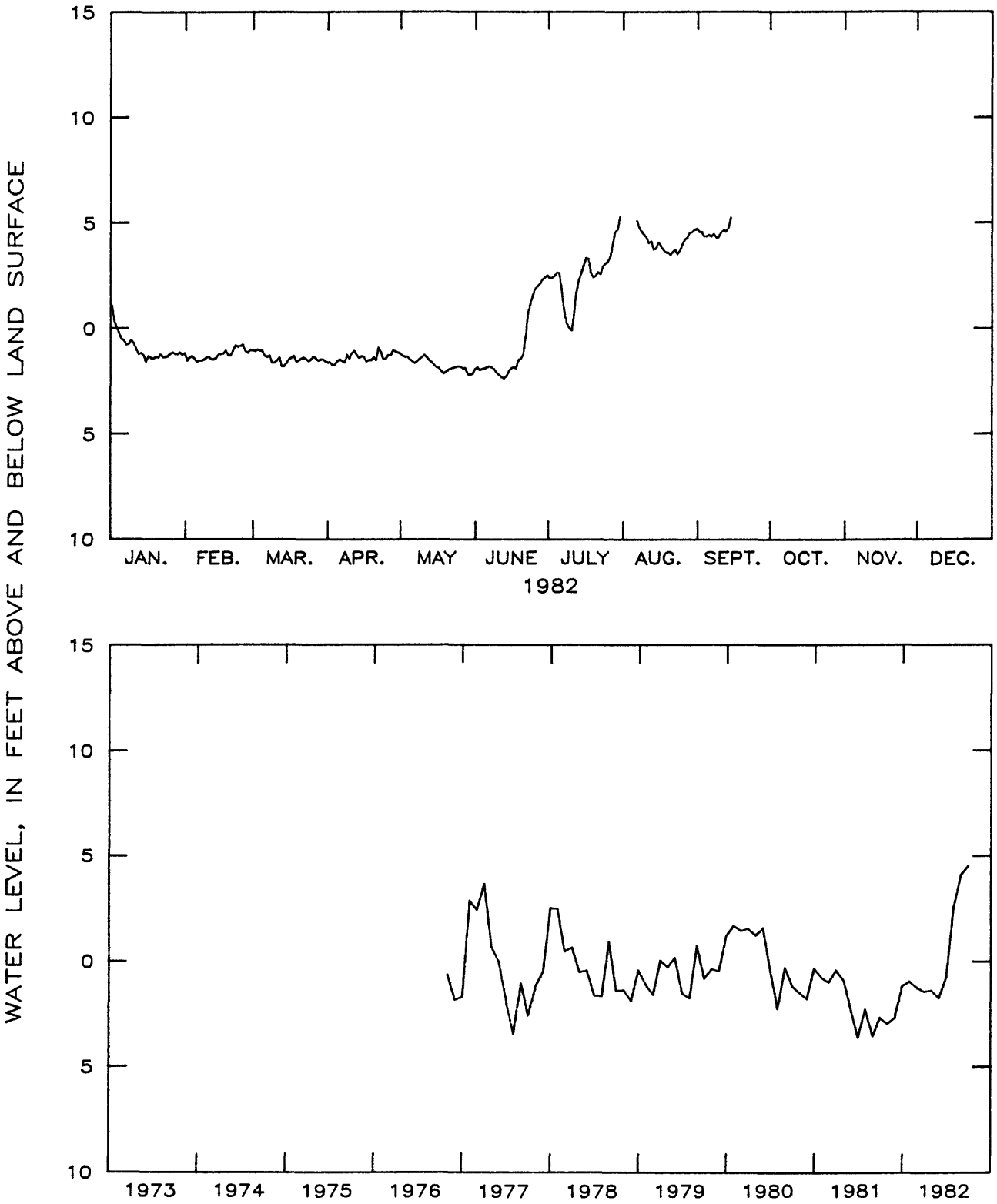

Figure 2.7.4.3—4.——Water level in observation well 34H426, brackish water zone, Glynn County.

34H391 TEST WELL 16 GLYNN COUNTY

310818081294201 Local number, 34H391.
LOCATION.--Lat 31°08'18", long 81°29'42", Hydrologic Unit 03070203, located near intersection of Albemarle Street/Ocean Boulevard and Bay Street in Brunswick.
Owner: U.S. Geological Survey, test well 16.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 1,150 ft, cased to 1,070 ft, open hole.
DATUM.--Altitude of land-surface datum is 7.71 ft.
Measuring point: Floor of recorder shelter at land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, January 11-31, August 2, September 20-28, and October 8-11, were estimated. Well was flowing September 29 to October 7 and December 25-28.
PERIOD OF RECORD.--August 1975.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.30 ft above land-surface datum, January 1, 1978; lowest, 2.96 ft below land-surface datum, July 27, 1977.

Water level, in feet above or below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.82	-0.46	.16	-0.75	-0.32	-C.74	2.80	6.42	5.24	---	5.84	6.00
2	1.46	-0.46	.28	-0.86	-0.32	-C.86	2.84	6.96	5.16	---	5.84	6.02
3	1.34	-0.18	.24	-0.78	-0.32	-C.81	2.93	6.96	4.96	---	6.00	6.28
4	.78	-0.24	.24	-0.66	-C.34	-C.76	3.06	6.14	4.96	---	5.94	6.56
5	.62	-0.42	.03	-0.57	-C.46	-C.67	3.10	5.47	5.08	---	5.68	6.33
6	.54	-0.38	.08	-0.68	-0.54	-C.63	2.44	5.15	4.97	---	5.76	6.30
7	.40	-C.34	.04	-0.76	-C.46	-C.72	1.54	4.96	5.08	---	5.82	6.12
8	.48	-0.27	-0.32	-0.42	-C.32	-0.81	1.10	4.92	4.94	8.43	5.86	6.02
9	.63	-C.16	-0.33	-0.36	-0.24	-C.96	.96	4.83	4.94	8.19	5.90	5.84
10	.55	-0.16	-0.22	-0.36	-0.13	-1.02	.84	4.78	5.10	7.87	5.70	5.78
11	.41	-0.21	-0.44	-0.16	-0.24	-1.10	1.41	4.52	5.26	7.60	5.88	6.12
12	.34	-0.24	-0.72	-0.51	-C.36	-1.14	2.26	4.64	5.20	7.40	5.84	6.24
13	.31	-C.16	-0.72	-0.52	-C.49	-1.03	2.76	4.38	5.32	7.09	5.84	6.12
14	.43	.02	-0.54	-0.40	-C.57	-0.85	3.14	4.42	5.71	6.87	6.08	6.22
15	.05	-0.04	-0.35	-0.37	-0.68	-C.78	3.40	4.68	6.22	6.64	6.22	6.24
16	.00	.04	-0.44	-0.56	-C.67	-C.74	3.75	4.50	6.40	6.46	6.18	6.37
17	-C.09	.16	-0.40	-0.50	-C.82	-0.77	3.77	4.36	6.48	6.31	6.40	6.71
18	-0.12	-0.06	-0.65	-0.50	-1.00	-0.20	3.18	4.24	6.52	6.20	6.30	6.80
19	-C.11	-0.10	-C.42	-0.40	-0.94	-C.31	3.02	4.17	6.54	6.15	6.32	7.20
20	-C.10	.18	-0.42	-0.56	-C.81	-C.16	3.04	4.06	6.61	6.36	6.32	7.36
21	-C.08	.32	-0.36	.06	-C.74	.55	3.24	4.32	6.64	6.29	6.42	7.47
22	-C.15	.20	-0.40	-0.19	-0.68	.98	3.15	4.38	6.68	6.02	6.44	7.31
23	-C.08	.30	-C.53	-0.48	-C.66	1.71	3.42	4.24	6.63	6.18	6.40	7.41
24	-0.13	.33	-C.40	-0.45	-0.68	2.00	3.64	4.38	6.70	6.13	6.26	8.32
25	-0.13	.16	-0.24	-0.29	-0.66	2.25	3.69	4.62	6.81	6.01	6.35	---
26	-0.19	.04	-0.45	-0.31	-0.72	2.38	3.90	4.86	6.94	6.15	6.46	---
27	-0.32	.18	-0.44	-0.14	-0.77	2.52	4.32	4.92	7.31	6.04	6.62	---
28	-0.32	.15	-0.42	-0.23	-1.00	2.64	4.78	5.12	8.19	5.82	6.65	---
29	-0.33	---	-0.52	-0.12	-1.04	2.79	4.98	5.18	---	5.82	6.32	8.70
30	-0.26	---	-0.58	-0.28	-0.98	2.83	5.44	5.25	---	5.81	6.11	8.35
31	-0.21	---	-0.61	---	-0.79	---	5.97	5.32	---	5.79	---	8.12
MEAN	.24	-0.06	-0.32	-0.44	-C.60	.19	3.16	4.94	5.95	6.57	6.13	6.75

CAL YR 1982 MEAN 2.59 MAX 8.70 MIN -1.14

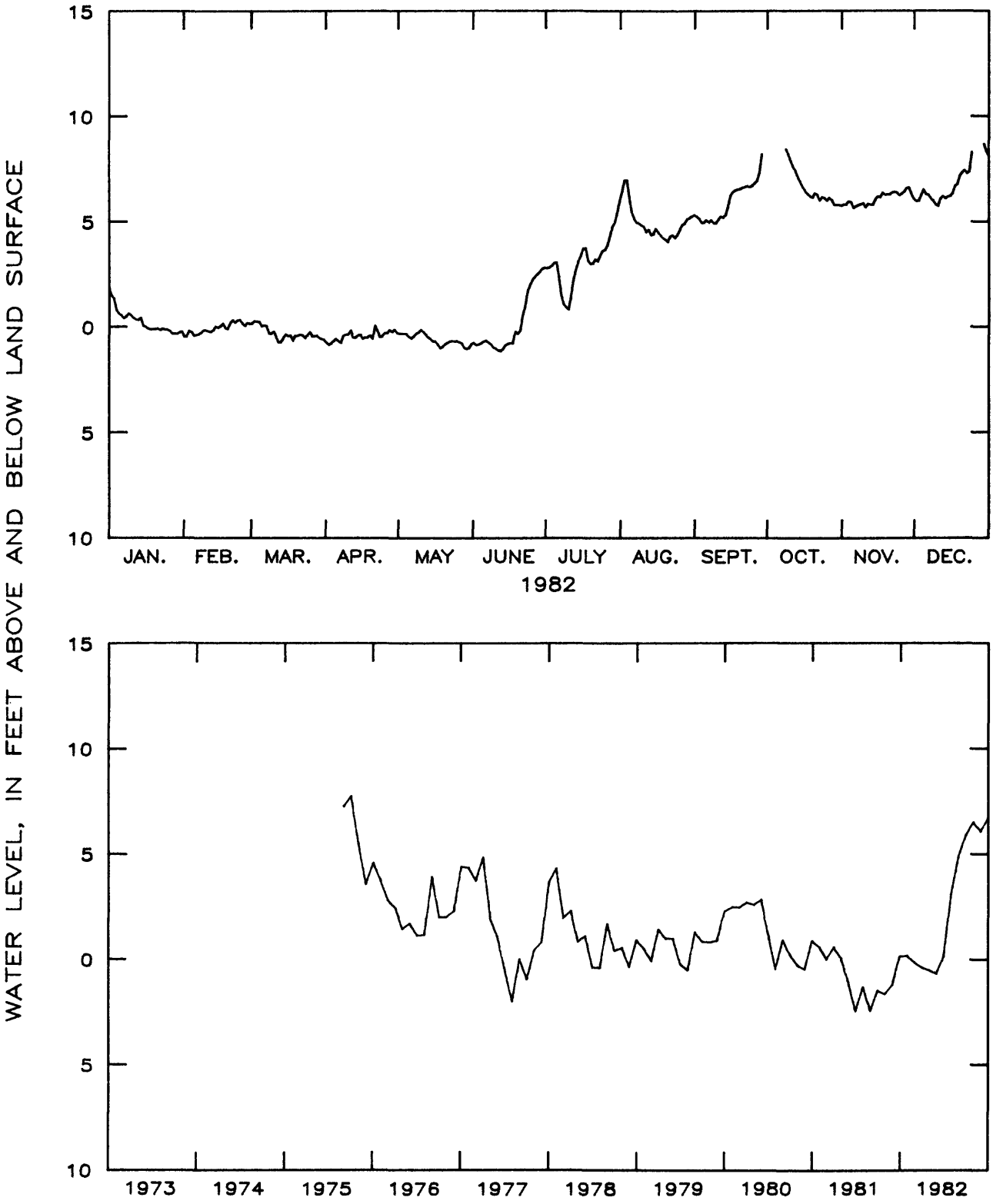

Figure 2.7.4.3–5.––Water level in observation well 34H391, brackish water zone, Glynn County.

33J044 TEST WELL 27 GLYNN COUNTY

311633081324001 Local number, 33J044.
LOCATION.--Lat 31°16'33", long 81°32'40", Hydrologic Unit 03070203, 1.2 mi east of Sterling, off State Highway 99 at the Brunswick Pulp and Paper Lumber Company.
Owner: Brunswick Pulp and Paper Co., USGS test well 27.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.—Drilled unused observation well, diameter 9 in., depth 2,260 ft, cased to 1,079 ft, open hole.
DATUM.--Altitude of land-surface datum is 20 ft.
Measuring point: Floor of recorder shelter, 4.5 ft above land-surface datum.
REMARKS.--This is the Sterling oil test well. Water levels for periods of missing recorder record, January 2-5 and August 2-5, were estimated. Well was flowing September 30 to October 7 and December 26-29.
PERIOD OF RECORD.—May 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 3.02 ft above land-surface datum, December 30, 1982; lowest, 6.30 ft below land-surface datum, August 11, 1981.

Water level, in feet above or below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-2.27	-3.93	-3.66	-3.88	-3.72	-4.20	-2.28	.23	-0.01	---	.44	.54
2	-2.87	-3.96	-3.61	-3.83	-3.74	-4.25	-2.30	1.02	.02	---	.48	.51
3	-3.08	-3.86	-3.56	-3.81	-3.72	-4.25	-2.16	1.27	.03	---	.56	.52
4	-3.20	-3.94	-3.52	-3.82	-3.78	-4.22	-2.02	.69	.02	---	.53	.62
5	-3.36	-3.98	-3.62	-3.65	-3.86	-4.16	-1.98	.27	.03	---	.27	.72
6	-3.28	-3.96	-3.59	-3.71	-3.89	-4.19	-2.06	.20	.02	---	.23	.64
7	-3.30	-4.02	-3.65	-3.86	-3.80	-4.24	-2.24	.02	.07	---	.26	.50
8	-3.38	-3.94	-4.02	-3.64	-3.74	-4.22	-2.48	-0.10	.10	2.72	.27	.45
9	-3.28	-3.76	-4.04	-3.52	-3.76	-4.26	-2.66	-0.20	.10	2.48	.27	.42
10	-3.41	-3.81	-3.93	-3.64	-3.73	-4.32	-2.77	-0.28	.17	2.17	.20	.39
11	-3.53	-3.90	-3.84	-3.57	-3.74	-4.42	-2.76	-0.38	.24	1.91	.24	.56
12	-3.58	-3.84	-3.82	-3.61	-3.80	-4.52	-2.47	-0.38	.22	1.72	.35	.64
13	-3.58	-3.85	-3.94	-3.66	-3.88	-4.52	-2.12	-0.46	.18	1.64	.26	.39
14	-3.44	-3.92	-3.98	-3.62	-3.93	-4.50	-1.82	-0.50	.00	1.50	.32	.40
15	-3.80	-3.81	-3.90	-3.66	-3.99	-4.39	-1.58	-0.48	.24	1.35	.38	.54
16	-3.83	-3.66	-3.86	-3.78	-4.05	-4.35	-1.35	-0.52	.42	1.19	.49	.68
17	-3.89	-3.54	-3.86	-3.79	-4.12	-4.32	-1.14	-0.54	.52	.96	.63	.77
18	-3.90	-3.73	-3.93	-3.79	-4.20	-4.12	-1.23	-0.60	.59	.82	.62	.88
19	-3.87	-3.79	-3.93	-3.72	-4.26	-4.06	-1.30	-0.68	.66	.80	.56	1.16
20	-3.84	-3.66	-3.82	-3.76	-4.20	-4.02	-1.32	-0.74	.74	.84	.58	1.29
21	-3.80	-3.46	-3.84	-3.78	-4.20	-3.91	-1.29	-0.68	.78	.89	.60	1.38
22	-3.84	-3.61	-3.87	-3.70	-4.20	-3.61	-1.30	-0.64	.83	.78	.69	1.39
23	-3.75	-3.64	-3.87	-3.80	-4.20	-3.31	-1.22	-0.68	.78	.74	.70	1.38
24	-3.78	-3.54	-3.83	-3.78	-4.13	-3.08	-1.12	-0.72	.86	.72	.56	1.86
25	-3.76	-3.56	-3.78	-3.65	-4.10	-2.90	-1.09	-0.60	.98	.62	.44	2.74
26	-3.79	-3.70	-3.81	-3.56	-4.12	-2.77	-0.99	-0.46	1.12	.56	.57	---
27	-3.90	-3.59	-3.99	-3.54	-4.21	-2.66	-0.80	-0.38	1.50	.58	.68	---
28	-3.88	-3.62	-4.00	-3.55	-4.25	-2.48	-0.62	-0.32	2.39	.50	.80	---
29	-3.87	---	-3.96	-3.62	-4.32	-2.34	-0.45	-0.28	2.98	.47	.84	---
30	-3.77	---	-3.95	-3.68	-4.36	-2.24	-0.28	-0.22	---	.43	.68	3.02
31	-3.70	---	-3.00	---	-4.30	---	-0.01	-0.08	---	.41	---	2.68
MEAN	-3.57	-3.77	-3.81	-3.70	-4.01	-3.83	-1.59	-0.23	.57	1.12	.48	1.00

CAL YR 1982 MEAN -1.86 MAX 3.02 MIN -4.52

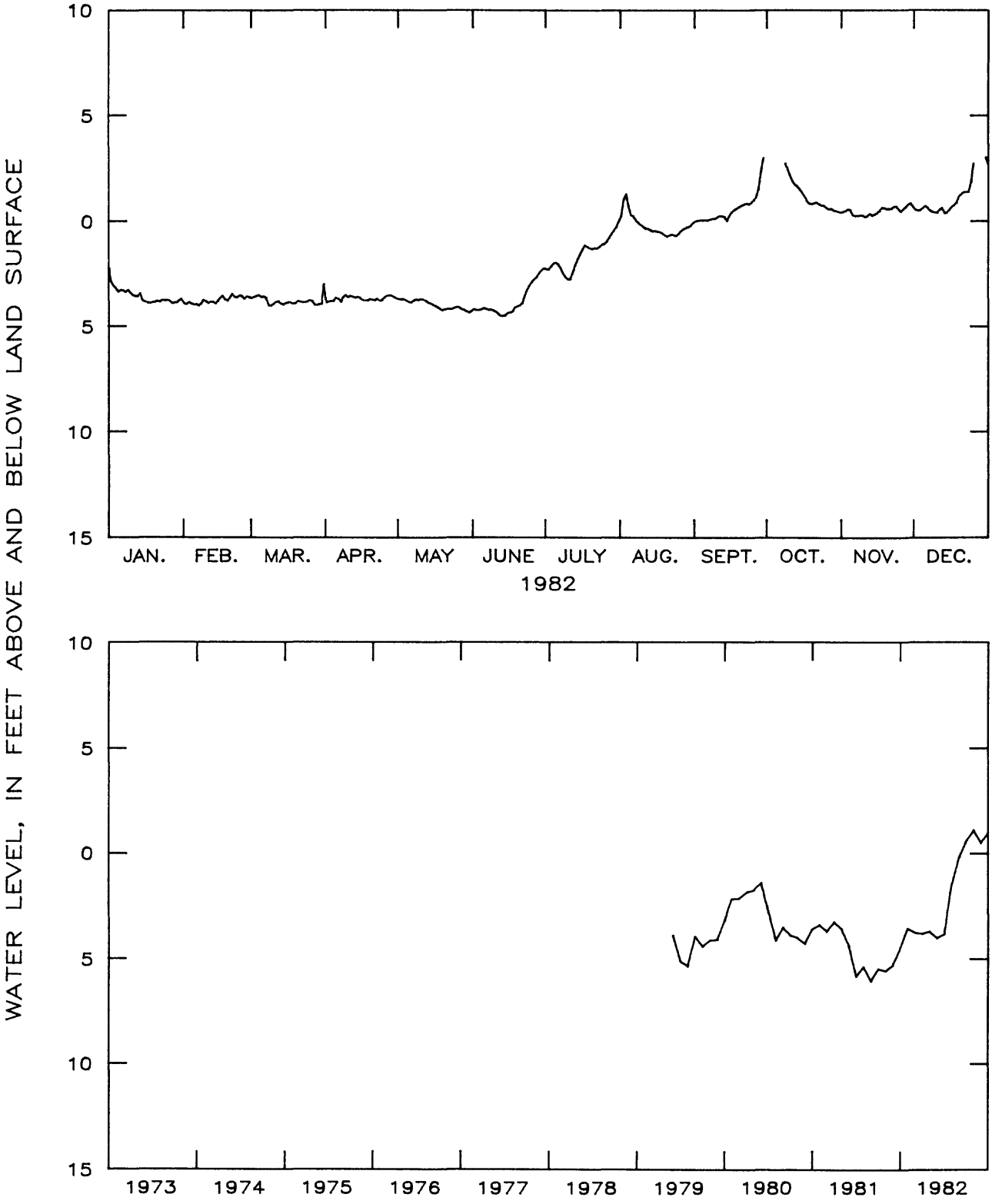

Figure 2.7.4.3–6.––Water level in observation well 33J044, brackish water zone, Glynn County.

2.7.4.4 Kings Bay-Okefenokee Swamp area

Ground-water levels in the principal artesian aquifer in the Kings Bay area are affected by industrial pumpage of about 35 Mgal/d near St. Marys. A reduction in pumpage during 1982 allowed water levels to recover from the record lows of 1981. The 1982 hydrograph for observation well 33E027 (Kings Bay) shows the effects of a partial industrial shutdown in December.

The water table in the Okefenokee Swamp area fluctuates seasonally and is affected by precipitation and evapotranspiration. This fluctuation probably affects the water level in the underlying principal artesian aquifer (Callahan, 1964).

Mean annual water levels in the principal artesian aquifer in the Kings Bay-Okefenokee Swamp area were from 1.7 to 2.5 feet higher in 1982 than in 1981.

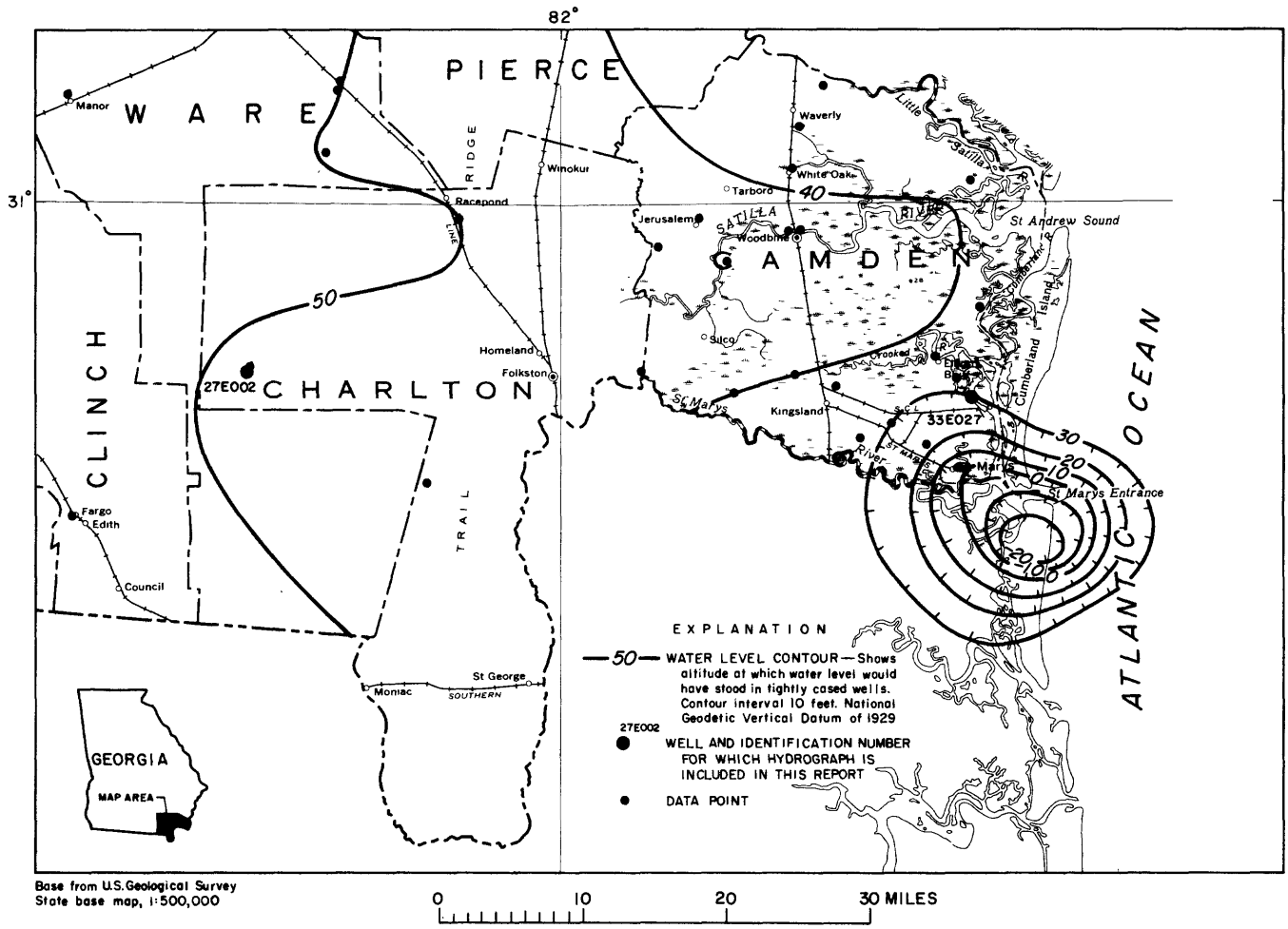

Figure 2.7.4.4—1.——Observation well locations and the water level in the principal artesian aquifer in the Kings Bay—Okefenokee Swamp area, November 1982.

33E027 KINGS BAY CAMDEN COUNTY

304756081311101 Local number, 33E027.
LOCATION.--Lat 30°47'56", long 81°31'11", Hydrologic Unit 03070203, Kings Bay Army Terminal.
Owner: U.S. Department of the Navy.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled unused test well, diameter 8 in., depth 1,306 ft, cased to 555 ft, backfilled to 990 ft.
DATUM.--Altitude of land-surface datum is 13.1 ft.
Measuring point: Top of flange at land-surface datum.
REMARKS.--Water levels for periods of missing recorder record, January 1-3, May 2-4, August 22 to September 2, September 21 to October 5, October 7-27, and November 28 to December 1, were estimated.
PERIOD OF RECORD.--August 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.10 ft above land-surface datum, December 29, 1982; lowest, 14.75 ft above land-surface datum, February 28, 1981.

Water level, in feet above land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	20.94	18.50	19.30	19.50	20.90	18.70	19.00	20.60	19.92	22.26	20.90	20.56
2	20.22	18.50	19.40	19.80	20.96	18.90	18.80	20.70	20.09	22.47	20.90	20.50
3	20.12	18.90	19.60	19.70	21.01	18.80	19.00	20.70	20.30	22.61	21.10	20.60
4	20.10	18.60	20.00	19.70	21.07	18.80	19.10	20.50	20.10	22.70	20.90	20.70
5	19.60	18.90	19.80	19.80	21.00	18.80	19.10	20.50	20.10	22.77	20.50	21.00
6	19.50	19.00	20.00	19.70	20.90	18.80	19.10	20.50	20.10	22.80	20.30	20.60
7	19.60	19.10	20.30	19.40	20.70	18.80	19.00	20.30	20.20	22.82	20.20	20.50
8	19.70	19.20	19.50	19.70	20.80	18.80	19.00	20.30	20.10	22.90	20.40	20.60
9	19.50	19.50	19.20	19.90	20.60	18.80	19.20	20.30	20.20	22.92	20.40	20.70
10	19.50	19.40	19.30	19.60	20.60	18.70	19.20	20.10	20.30	22.86	20.50	20.80
11	19.10	19.20	19.50	19.90	20.60	18.70	19.30	20.00	20.60	22.76	20.60	20.80
12	18.70	19.20	19.60	19.90	20.50	18.70	19.40	20.00	20.70	22.58	20.70	20.90
13	18.60	19.30	19.50	20.00	20.40	18.70	19.50	20.20	20.80	22.58	20.30	20.60
14	18.70	19.20	19.40	20.20	20.20	18.60	19.60	20.10	20.90	22.54	20.30	20.50
15	19.20	19.40	19.50	20.30	20.50	18.60	19.60	20.30	21.10	22.42	20.40	21.00
16	19.00	19.70	19.60	20.40	20.50	18.60	19.70	20.20	21.20	22.34	20.40	21.00
17	18.70	19.90	19.60	20.50	20.40	18.60	19.70	20.00	21.20	22.02	20.60	20.90
18	18.80	19.50	19.50	20.10	20.30	18.50	19.60	20.00	21.40	21.72	20.80	20.90
19	19.00	19.60	19.40	20.30	20.20	18.50	19.70	20.00	21.40	21.66	20.60	21.10
20	18.80	19.60	19.40	20.50	20.10	18.50	19.80	19.90	21.40	21.66	20.60	21.00
21	18.90	19.60	19.50	20.50	20.20	18.40	20.00	19.80	21.49	21.66	20.80	21.30
22	18.90	19.40	19.80	20.50	20.10	18.50	20.20	19.93	21.52	21.74	20.90	21.20
23	19.00	19.40	19.90	20.20	20.10	18.50	20.30	19.88	21.47	21.78	20.70	21.40
24	19.00	19.40	19.80	20.10	20.10	18.30	20.30	19.84	21.60	21.62	20.40	21.60
25	19.10	19.50	19.90	20.30	20.00	18.30	20.40	19.91	21.82	21.36	20.00	22.00
26	18.90	19.10	19.80	20.60	19.60	18.50	20.50	19.96	22.09	21.14	20.10	22.80
27	19.00	19.20	19.90	20.60	19.30	18.40	20.60	19.99	22.08	20.96	20.40	23.40
28	19.10	19.20	19.80	20.70	19.20	18.30	20.70	20.01	21.95	20.90	20.60	24.00
29	19.10	---	19.40	20.60	19.30	18.60	20.60	19.94	22.02	20.90	20.76	24.10
30	18.80	---	19.40	20.60	19.20	19.00	20.60	19.81	22.13	20.90	20.64	23.90
31	18.60	---	19.50	---	19.00	---	20.70	19.84	---	20.80	---	23.50
MEAN	19.22	19.25	19.62	20.12	20.27	18.62	19.72	20.13	21.01	22.04	20.56	21.43

CAL YR 1982 MEAN 20.17 MAX 24.10 MIN 18.30

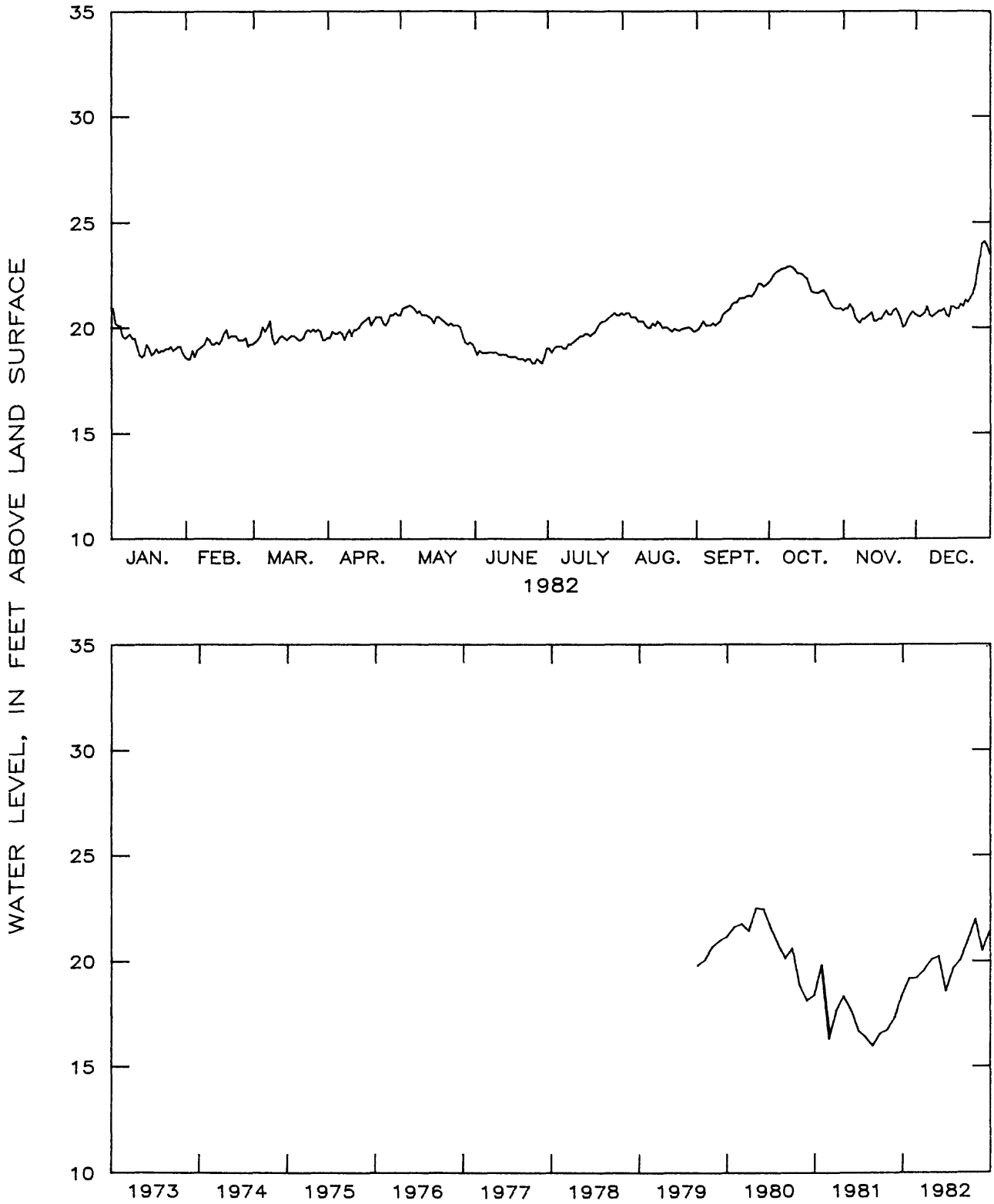

Figure 2.7.4.4–2.––Water level in observation well 33E027, Camden County.

27E002 TEST WELL OK8 CHARLTON COUNTY

304943082213701 Local number, 27E002.
LOCATION.--Lat 30°49'43", long 82°21'37", Hydrologic Unit 03110201, end of Georgia Highway 177 east of Stephen C. Foster State Park.
Owner: U.S. Geological Survey, test well OK 8.
AQUIFER.--Principal artesian aquifer.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 647 ft, cased to 465 ft, open hole.
DATUM.--Altitude of land-surface datum is 116 ft.
Measuring point: Floor of recorder shelter, 4.2 ft above land-surface datum.
REMARKS.--Well pumped Aug. 1, 1978, sounded to obstruction at 484 ft. Well open below obstruction. Water levels for periods of missing recorder record, February 20-23, July 19 to August 1, and December 13-29, were estimated.
PERIOD OF RECORD.--May 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.65 ft below land-surface datum, June 27, 1966; lowest, 71.17 ft below land surface datum, July 27, 1981.

Water level, in feet below land surface, through calendar year 1982 daily mean values - monthly mean values

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	69.74	68.86	68.32	67.97	67.54	68.11	68.55	67.86	67.52	67.18	67.26	67.44
2	69.77	68.84	68.26	67.92	67.50	68.14	68.62	67.73	67.46	67.13	67.20	67.47
3	69.76	68.90	68.16	67.84	67.45	68.18	68.61	67.70	67.42	67.12	67.14	67.44
4	69.71	68.78	68.08	67.88	67.46	68.22	68.54	67.70	67.43	67.13	67.16	67.39
5	69.75	68.63	68.07	67.76	67.50	68.19	68.62	67.72	67.48	67.16	67.30	67.30
6	69.70	68.66	67.98	67.77	67.51	68.25	68.62	67.71	67.52	67.17	67.39	67.34
7	69.62	68.70	67.93	67.96	67.42	68.33	68.61	67.69	67.52	67.18	67.41	67.46
8	69.60	68.84	68.20	67.81	67.36	68.36	68.59	67.66	67.48	67.14	67.40	67.54
9	69.52	68.65	68.31	67.73	67.38	68.36	68.54	67.61	67.45	67.10	67.41	67.51
10	69.50	68.70	68.20	67.86	67.43	68.38	68.52	67.59	67.42	67.08	67.44	67.44
11	69.55	68.63	68.07	67.85	67.44	68.38	68.52	67.58	67.38	67.06	67.43	67.27
12	69.51	68.43	68.00	67.87	67.47	68.45	68.51	67.56	67.39	67.11	67.36	67.06
13	69.49	68.32	68.00	67.84	67.50	68.50	68.48	67.50	67.43	67.08	67.41	67.30
14	69.46	68.42	68.00	67.78	67.51	68.53	68.46	67.46	67.36	67.06	67.45	67.35
15	69.41	68.45	67.97	67.76	67.53	68.57	68.45	67.46	67.28	67.08	67.45	67.31
16	69.36	68.35	67.94	67.78	67.57	68.58	68.45	67.48	67.22	67.12	67.48	67.29
17	69.28	68.21	67.93	67.76	67.62	68.59	68.41	67.45	67.23	67.22	67.40	67.29
18	69.24	68.17	67.96	67.72	67.66	68.50	68.38	67.43	67.22	67.30	67.38	67.29
19	69.16	68.17	67.96	67.67	67.72	68.52	68.34	67.46	67.19	67.30	67.41	67.15
20	69.10	68.21	67.88	67.60	67.77	68.58	68.30	67.43	67.19	67.26	67.42	67.10
21	69.09	68.25	67.88	67.62	67.78	68.60	68.25	67.48	67.19	67.21	67.42	67.18
22	69.11	68.29	67.87	67.62	67.86	68.62	68.21	67.44	67.22	67.20	67.38	67.26
23	69.15	68.33	67.87	67.71	67.89	68.62	68.21	67.46	67.25	67.20	67.34	67.29
24	69.15	68.37	67.84	67.67	67.91	68.60	68.20	67.48	67.23	67.20	67.42	67.24
25	69.12	68.38	67.85	67.51	67.91	68.63	68.18	67.45	67.16	67.22	67.56	67.29
26	69.02	68.45	67.90	67.42	67.92	68.65	68.14	67.42	67.09	67.30	67.58	67.30
27	68.88	68.34	68.01	67.38	67.95	68.65	68.08	67.44	67.11	67.34	67.52	67.26
28	68.94	68.28	68.12	67.38	68.02	68.60	68.00	67.44	67.19	67.32	67.52	67.15
29	68.90	---	68.12	67.45	68.06	68.54	67.95	67.50	67.21	67.29	67.36	67.08
30	68.80	---	68.09	67.52	68.08	68.52	67.96	67.58	67.21	67.32	67.42	67.06
31	68.84	---	68.04	---	68.10	---	67.91	67.58	---	67.34	---	67.06
MEAN	69.33	68.49	68.03	67.71	67.67	68.46	68.36	67.55	67.32	67.19	67.39	67.29

CAL YR 1982 MEAN 67.90 HIGH 67.06 LOW 69.77

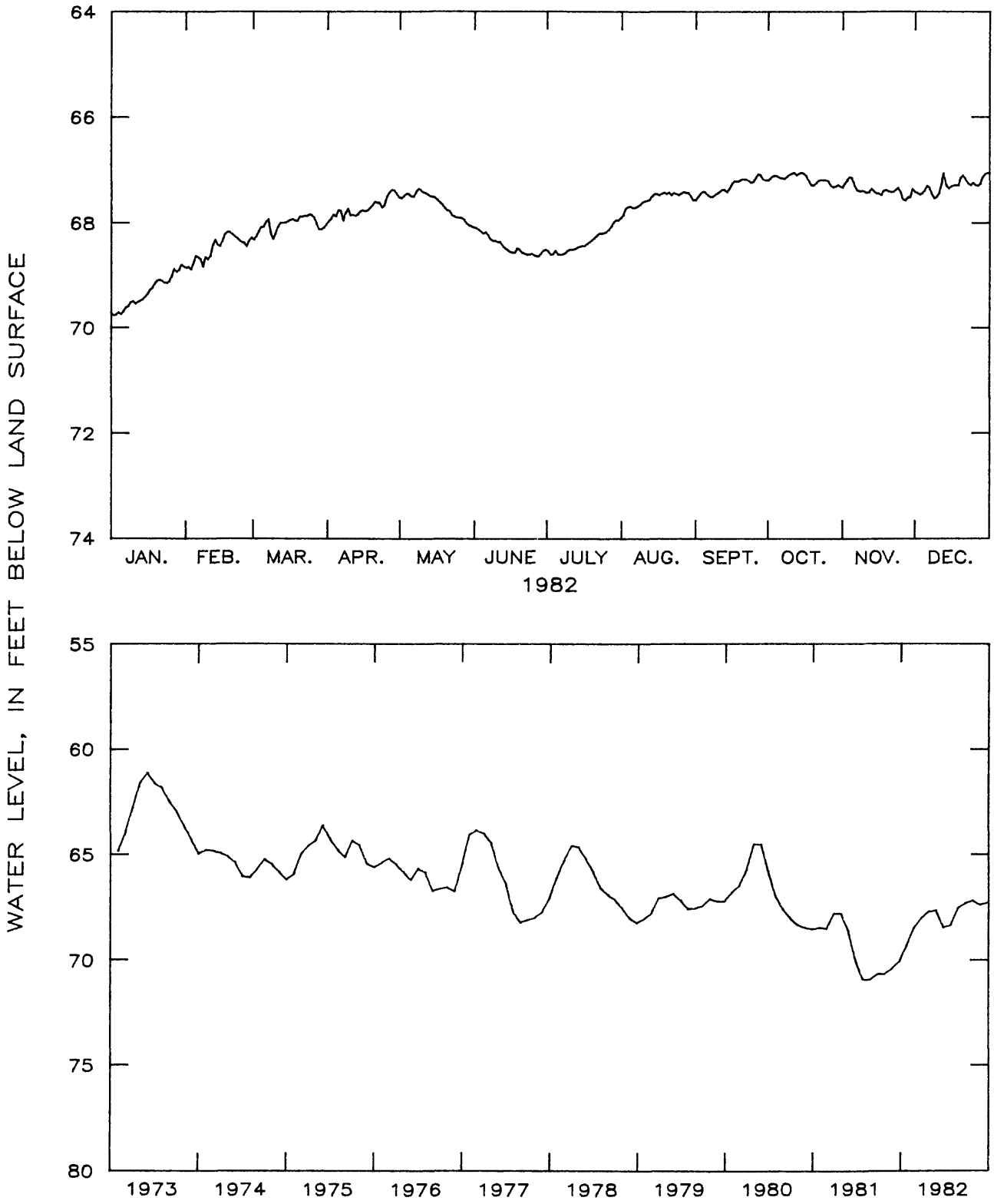

Figure 2.7.4.4—3.——Water level in observation well 27E002, Charlton County.

3.0 GROUND-WATER QUALITY

Water-quality samples are collected periodically throughout Georgia and analyzed as part of areal and regional ground-water studies. Wells along the coast have been monitored for chloride concentration since the late fifties. Chloride is indicative of brackish-water contamination and is readily analyzed in the field. Wells in the water-level monitoring networks also are pumped and sampled periodically to note any changes in water quality that may occur in the various aquifers of the State.

Where water-quality problems are noted, or are considered likely to occur, samples are collected more frequently and analyzed for water-quality constituents indicative of the problem. Streams also are sampled for water quality in those areas where the stream water recharges an aquifer. Withdrawals of ground water can induce water-quality problems that might not have otherwise occurred.

3.1 Savannah area

Ground-water pumpage, now totaling about 75 Mgal/d in the Savannah area, has lowered the artesian water level in the principal artesian aquifer to about 120 feet below sea level in the cone of depression. This water-level decline has caused no significant increase in chloride concentration in the freshwater zones of the principal artesian aquifer during the past 20 years. Twelve wells in the Savannah area are pumped and sampled monthly for chloride analysis.

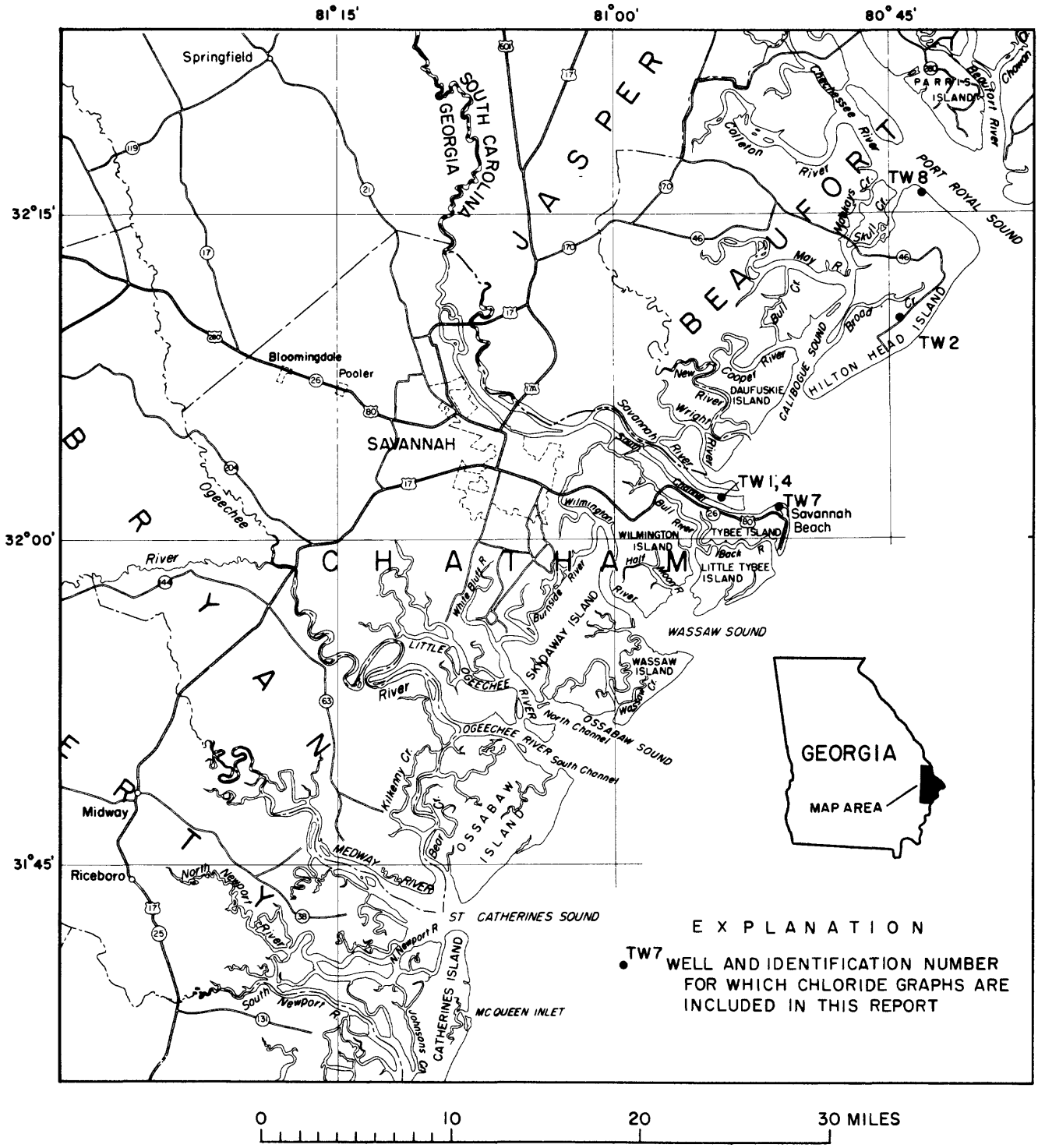

Figure 3.1—1.—Locations of chloride—monitoring wells in the Savannah area.

Chloride concentrations in Chatham County have remained stable for the past 10 years. Test well 1, point 1 (depth 1,230-1,363 ft), taps one of the deepest brackish-water zones of the principal artesian aquifer and has a chloride concentration of about 13,000 mg/L. Test well 1, point 2 (depth 870-925 ft), also taps a brackish-water zone and has a chloride concentration of about 5,300 mg/L. Test well 7, point 1 (depth 710-745 ft) and point 2 (depth 630-670 ft), and test well 4 (depth 606-657 ft) all have chloride concentrations of less than 900 mg/L.

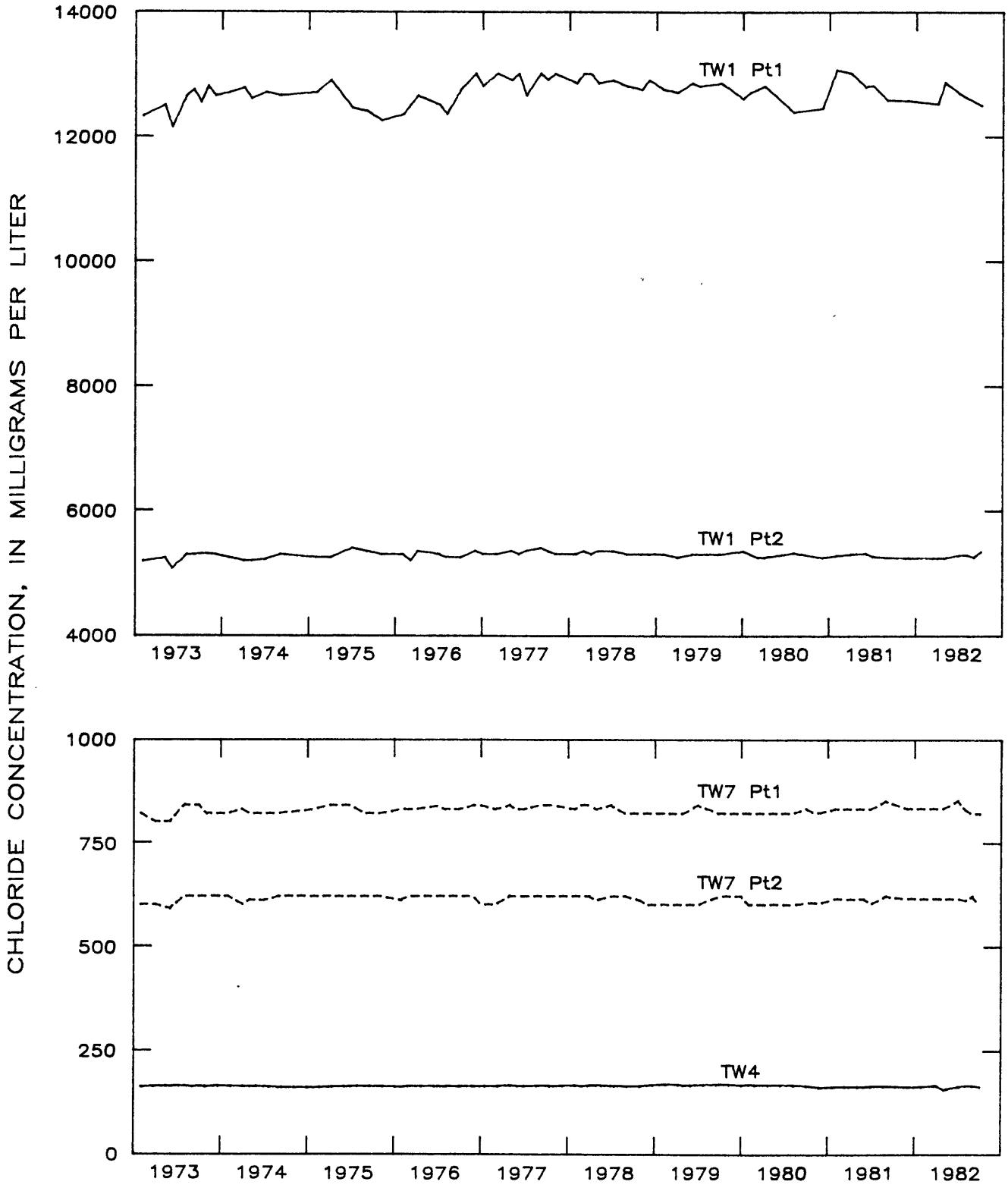

Figure 3.1—2.——Chloride concentrations in Chatham County.

U.S. Geological Survey test wells 2 and 8 are on Hilton Head Island, S.C. Test well 2, point 1 (depth 665-745 ft), had a chloride concentration ranging from 1,900 to 2,000 mg/L until 1981. At that time, the chloride concentration began to fluctuate, possibly in response to nearby pumpage or due to well failure. Test well 2, point 2 (depth 580-635 ft) and point 3 (depth 500-559 ft), shows no change in chloride concentrations for the period 1973-82.

The chloride concentration in test well 8, point 1 (depth 450-510 ft), in the lower part of the principal artesian aquifer has increased only slightly for the period 1973-82. The chloride concentration in test well 8, point 2 (depth 150-410 ft), has risen significantly since 1978. This increase may indicate that brackish water in the principal artesian aquifer is moving in response to pumpage. There are, however, no data to indicate that any increase in chloride concentration has occurred in the upper part of the aquifer that is utilized by most supply wells in the area.

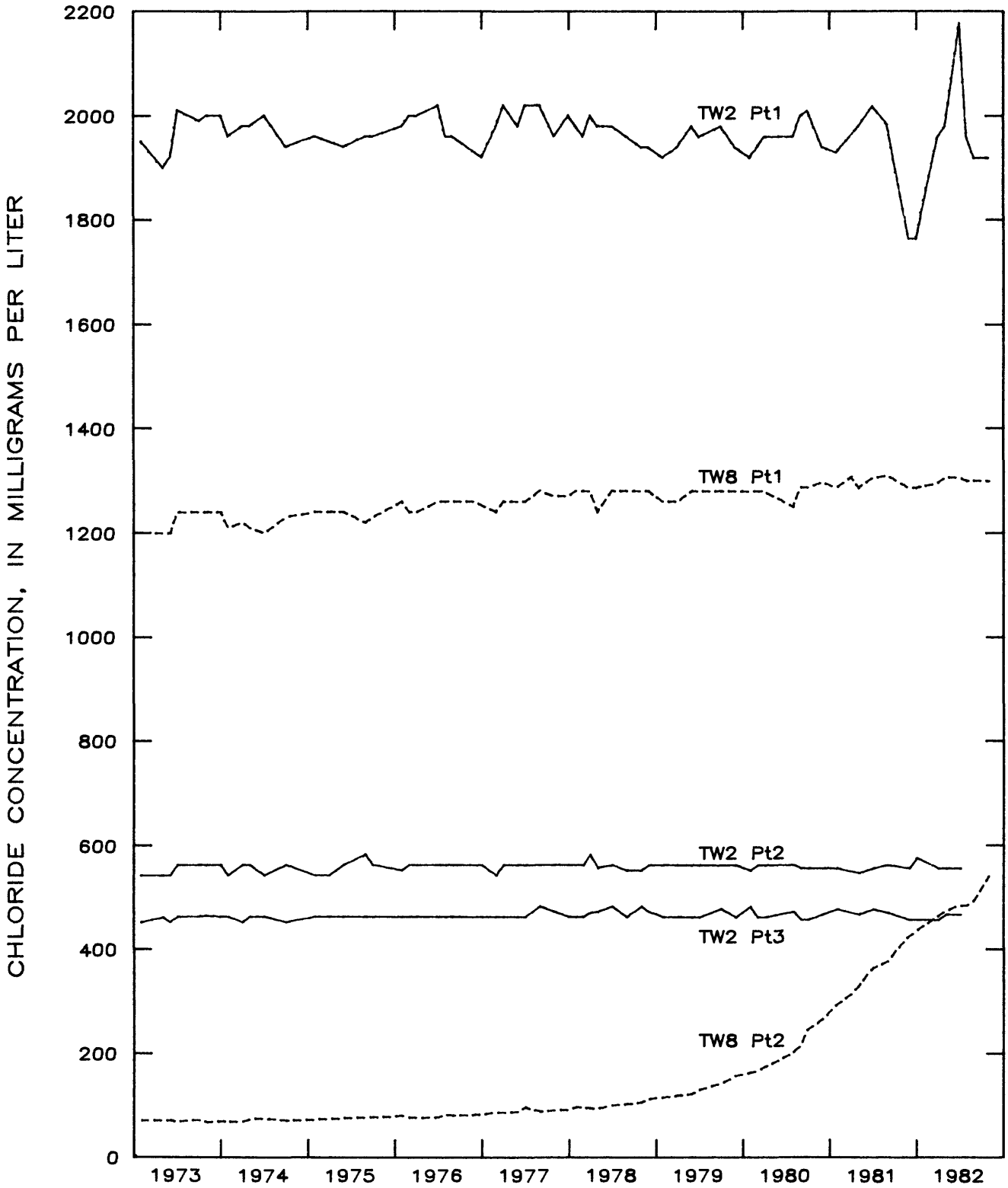

Figure 3.1—3.——Chloride concentrations on Hilton Head Island, South Carolina.

3.2 Brunswick Area

Since pumping began in the late 1800's, ground-water withdrawal in the Brunswick area has lowered the artesian water level in the principal artesian aquifer by as much as 25 to 65 feet. This water-level decline has allowed brackish water from underlying formations to migrate into the aquifer at three known locations and move downgradient toward the centers of pumpage. The brackish water has a chloride concentration of more than 6,000 mg/L. At two locations in Brunswick, the chloride concentration in the upper water-bearing zone of the principal artesian aquifer has risen to more than 2,000 mg/L.

In July 1982, an evaporative cooling tower at an industrial plant in the immediate Brunswick area was put into operation and reduced pumpage by about 10 Mgal/d.

About 100 wells in Glynn County, mostly in the Brunswick area, are pumped and sampled periodically for chloride analysis.

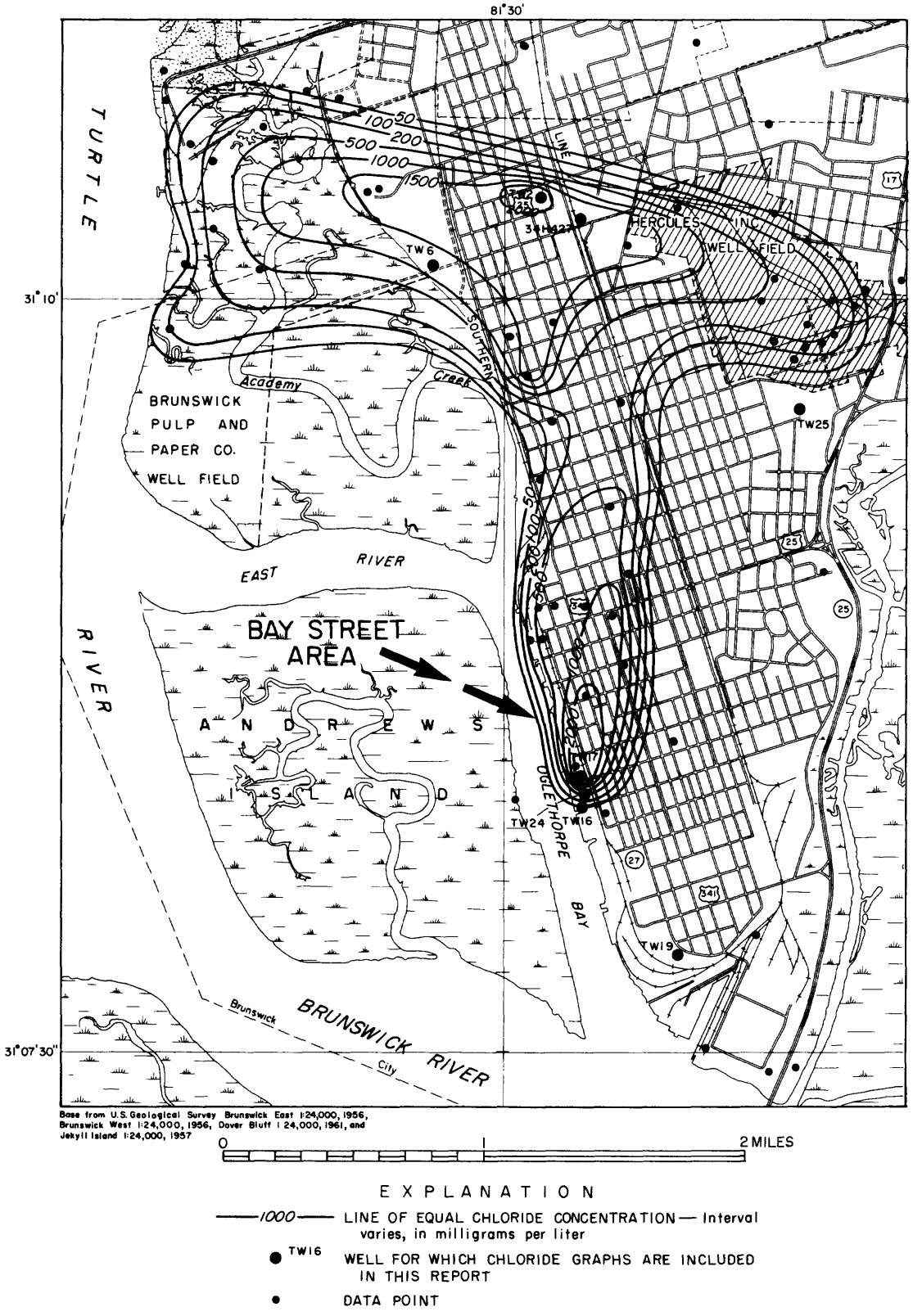

Figure 3.2—1.——Locations of chloride—monitoring wells and chloride concentrations in the upper water—bearing zone in the Brunswick area, September—October 1982.

Chloride concentrations in the Bay Street area respond to local pumpage. Test well 19 (depth 1,075-1,218 ft) taps the brackish-water zone beneath the principal artesian aquifer and has shown a steady increase in chloride concentration since 1969. The concentration at the end of 1982 was about 6,850 mg/L, an increase of about 2,150 mg/L since 1973. This indicates that saltwater is invading the brackish-water zone from a deeper source in the cavernous limestone (Harold E. Gill, U.S. Geological Survey, oral commun., 1979; Gregg and Zimmerman, 1974). Test well 16 (depth 1,070-1,159 ft) also taps the brackish-water zone. For the first half of 1982, this well had a chloride concentration of about 2,700 mg/L. With the reduction in pumpage of 10 Mgal/d, the chloride concentration decreased to about 2,350 mg/L.

Test well 17 (depth 615-723 ft) taps the upper water-bearing zone of the principal artesian aquifer in the Bay Street area. This well had a chloride concentration of about 2,450 mg/L for 1982. Test well 24 (depth 788-982 ft) is in the lower water-bearing zone of the aquifer and yields water containing about 1,550 mg/L chloride. The chloride concentrations in both the upper and lower water-bearing zones of the principal artesian aquifer have remained fairly stable for the last few years.

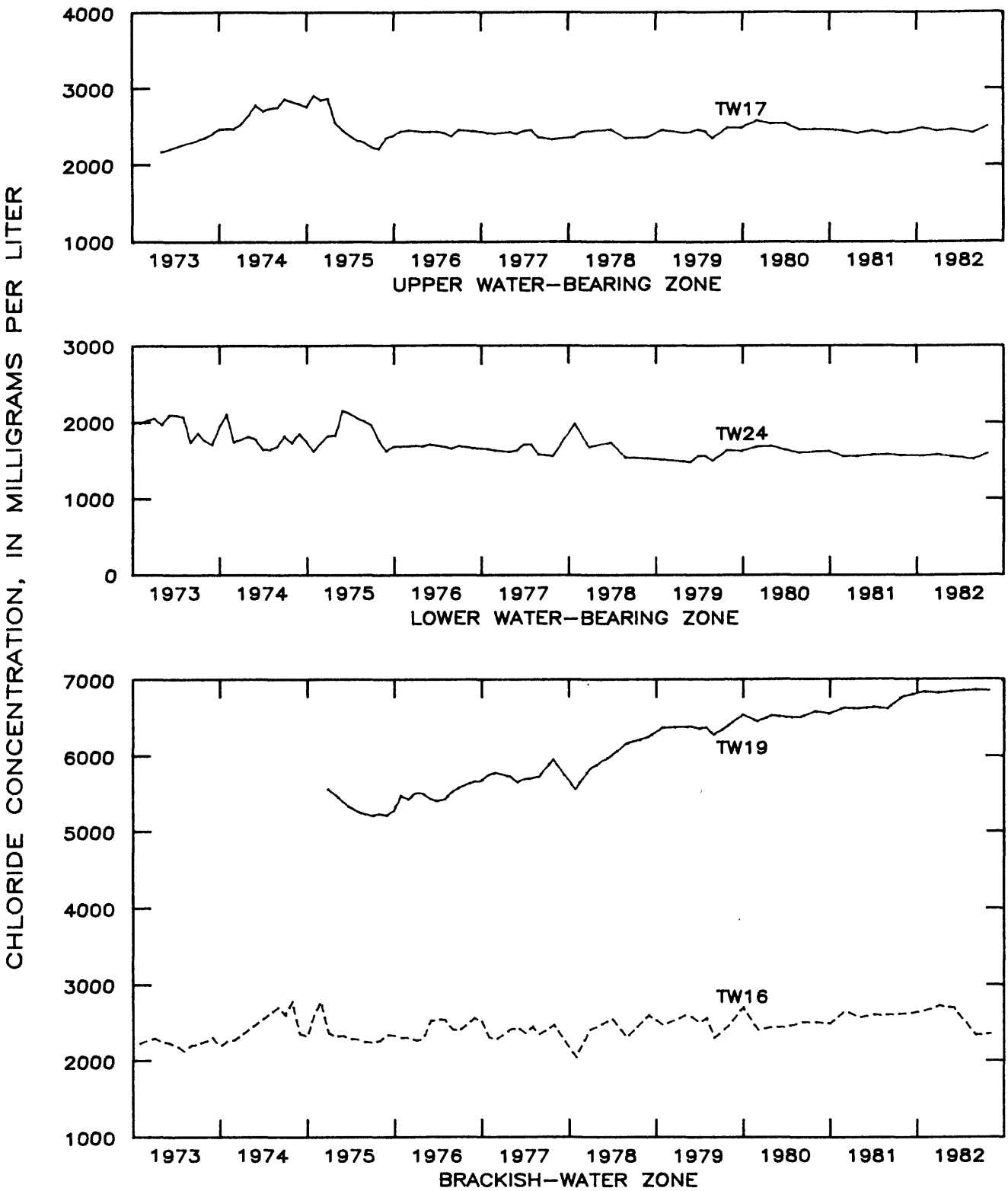

Figure 3.2–2.––Chloride concentrations in the Bay Street area of Brunswick.

Chloride concentrations continued to rise in the North Brunswick area during 1982. Observation well 34H427 (depth 500-640 ft), test well 2 (depth 540-566 ft), and test well 6 (depth 520-790 ft) tap the upper water-bearing zone of the principal artesian aquifer. Observation well 34H427 has shown several fluctuations in chloride concentration in the past, and it is difficult to determine if the decrease in chloride concentration at the end of 1982 is temporary or long term. There has been a sharp increase in chloride concentration in test well 2 since 1973, and in test well 6 since 1978.

Test well 3 (depth 823-952 ft) taps the lower water-bearing zone. With the reduction in pumpage in July 1982, the chloride concentration in this well began to fluctuate. Test well 25 (depth 1,027-1,211 ft) taps the brackish-water zone beneath the principal artesian aquifer. The chloride concentration in this well had been fairly stable since 1978, but rose dramatically in late summer of 1982. The decrease in pumpage nearby may have changed the principal direction of groundwater movement in the aquifer. More data are needed to assess the implications of this rise.

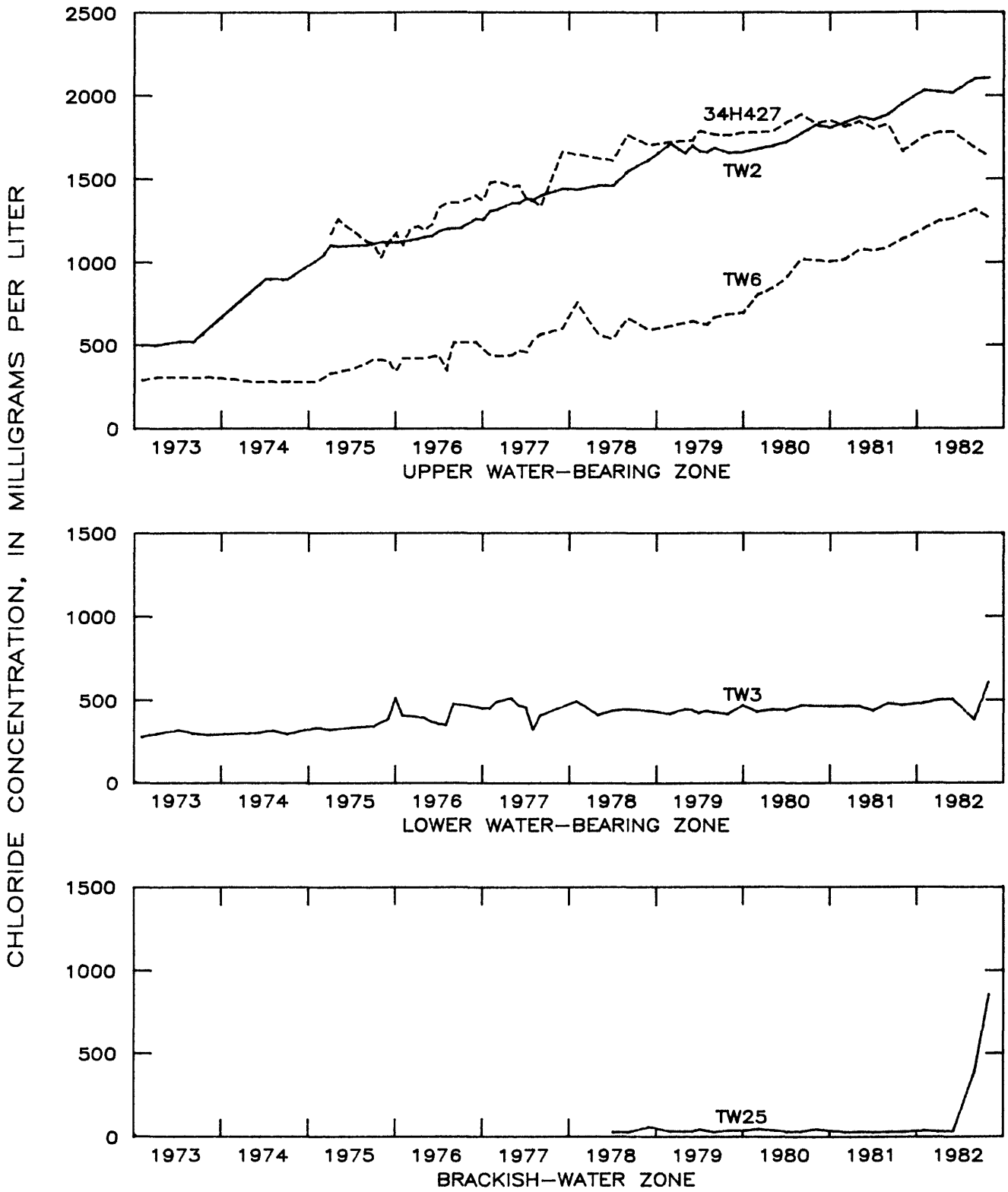

Figure 3.2-3.--Chloride concentrations in the North Brunswick area.

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